



MEDIATING PROCESSES OF EXPERT INTERPRETING: A DELIBERATE PRACTICE APPROACH

Behzad GHONSOOLY*
Majid Elahi SHIRVAN**

Abstract: Interpreting is considered to be the most elusive phenomena in skilled language activities i.e., comprehension and production of a language. Recent studies (Ericsson, 2002) have shown that attainment of expertise in interpreting is a matter of designed training activities, namely deliberate practice. However, the processes mediating expert interpreting are remained largely unknown. In this paper, we have tried to describe mediating mechanisms of expert performance of a highly expert interpreter through task analysis, retrospective protocols and diaries. The result of this study is in support of deliberate practice theory, that is, expert performance approach requires interpreters to follow certain performance activities. The participant of this study reported getting effective instruction when he was receiving formal interpreting training followed by proper feedback and monotonous repetition. In his retrospective interview the elite interpreter showed a high degree of motivation too.

Keywords: Interpreting, expert performance, mediating process, deliberate practice.

Özet: Sözlü yeteneğe dayanan dil etkinlikleri yani dili anlama ve üretme en zor olgular olarak kabul edilir. Son çalışmalar (Ericsson, 2002) yorumlama sürecinde uzmanlık, ulaşma, eğitim faaliyetlerinin önemli olduğunu göstermiştir. Ancak, uzmanca yorumlamada arabulucu süreçleri nasıl işlemektedir halen önemli ölçüde bilinmemektedir. Bu çalışmada görev analizi, geriye dönük protokoller ve günceler yoluyla uzman bir yorumlama uzmanının arabuluculuk mekanizmalarını tanımlamaya çalıştık. Bu çalışmanın sonuçları kasıtlı uygulama teorisine göre performans yaklaşımının uzman performans çalışmalarının sürekli takip edilmesi gerektiğini göstermiştir. Bu çalışmada katılımcı etkili bir öğretim aldığını bildirmiştir. Geleneksel yorumlama alıştırmalarını takip eden uygun geribildirim ve alışılmış tekrarların katılımcının yorumlama becerilerine olumlu katkıları olduğu görülmektedir.

Anahtar sözcükler: Yorumlama, uzman, performans, arabuluculuk, kasıtlı uygulama.

Introduction

How elite individuals attain high levels of achievement has become one of the concerns of psychologists during the last two decades. Recent investigations have documented different reasons for attaining expertise in a field, for example, Rajabi (2009) found the effect of cultural orientations significant in the EFL learners' reading comprehension process. Also, Rahimi and Abedini (2009) discovered that psychological factors such as self-efficacy play a significant role in the performance of listening comprehension of EFL learners. Some researchers like Ericson (1996) maintain that expertise is not just the result of talent or one's basic endowment but rather due to tedious period of intense practice. Research into a wide range of human activities has supported this view (see for instance recent findings in chess, sport and music). However, there is another view which supports the notion that without the ability to perform a given task the sole practice does not help a lot. The former view has received firm support from a group of psychologists who belong to a school of thought known as deliberate practice while the latter view holds a common sense approach to expertise, an approach which lends support to the role of intelligence through work of famous scholars

* Assoc. Prof. Dr., Ferdowsi University of Mashhad, Iran, ghonsooly@um.ac.ir

** Ph.D. candidate, Ferdowsi University of Mashhad, Iran, elahimajd@yahoo.com

such as Gardner who has introduced his multiple intelligence theory. Interpreting is one of the most difficult skills attained by L2 learners and has not been paid due attention with regard to how an interpreter reaches the highest level of expertise (Ericsson, 2000). This study holds the former view and tries to describe mediating mechanisms which help an interpreter reach high levels of interpreting. The following section deals with the two conflicting trends and tries to discuss the most recent advances in the field of interpreting.¹

Approaches to the study of expert interpreting

There are few investigations which have paid attention to the comparison of professional interpreters to less-accomplished interpreters (Ericsson, 2000). However, the traditional approach to assessing interpreting seems to deal with testing ability to listen and comprehend the current part of a presented message and its simultaneous interpretation of that message (Ericsson, 2000). In an experimental research, Dillinger (1989, 1994 cited in Ericsson, 2000) examined performance of professional interpreters with that of regular bilinguals to identify qualitative differences in ability. The results showed no qualitative differences between the two groups. As Ericsson contends Dillinger's study, however, does not show how these individuals attained their interpreting skills. This shortcoming is addressed in a study by Grever *et.al.*, (1984, cited in Ericsson, 1986) who tested several types of abilities to predict the attained performance. Based on the findings individual differences in consecutive interpreting performance can be predicted by the students' memory for text and logical memory or depth of understanding through the use of cloze tests. Ericsson (2000) mentions other methods for capturing interpreting processes such as introspection. Although introspection provides rich data with regard to other language skills such as reading, translation, and writing, it seems impossible to expect an interpreter to engage in interpreting and at the same time verbalizing his/her thought processes.

Upon further investigations, Ericsson and Smith (1991) identified that some expert interpreters fail to perform well on tasks outside their narrow domain of expertise. An alternative approach called the expert-performance approach is proposed to study expertise in a domain. There are several important features for this approach. Initially, one has to capture the reliably superior performance of expert interpreters over less skilled individuals in simultaneous interpreting. The point, as they maintain, is to find those tasks that capture the essence of interpreting. The next step is to examine the processes that mediate this superior performance in order to identify the mediating mechanisms. The last step is to explain these mechanisms in terms of what activities led to their acquisition. Dillinger (1989) claims that training is not required for interpreting and that what matters in interpreting depends on an innate special skill.

Task specifications

Designing challenging tasks for expert interpreting required meticulous speculation in as much as there is a wide range of language situations which an expert interpreter deals with but are different in terms of complexity. Simple tasks were not, therefore, considered in this study since interpreter's success in performing these tasks does not represent his expertise in task execution. To design challenging tasks a group of English language university professors in the department of English, Ferdowsi University of Mashhad, were consulted. Several features were then decided upon which included mainly informal instances of language use. This decision was based on the fact that much of what is taught within English language education contains formal instances of language use and the acquisition of the informal aspect of the

¹ The first researcher would like to express his warmest gratitude to Professor Anders Ericsson for his financial and ethical support when he was in his sabbatical leave in Florida State University.

language is almost left to the learner. Our examination of successful L2 learners shows that only those who are either instrumentally or integratively motivated (Brown, 2004) strive to compensate for this gap. Therefore, the tasks had the following features:

Table 1. Facets of tasks and their characteristics

Facet of task (language)	Characteristics
Informal	Idiomatic
Collocational	Political, judiciary, cultural
Time	Immediate response
Length	Sentential

Task description

The tasks were closely inspected by a group of university professors and a common agreement was reached with regard to the challenging level of each task. Ten sentences in Farsi which contained idiomatic expressions and ten sentences which included ten collocations were prepared to be translated simultaneously by the subject of this study. The same procedure was followed with different sentences with respect to translating sentences from English to Farsi.

Procedures

This study was done in three main phases, mainly, the diary phase or the pre-experimental phase which lasted one month, the experimental phase which included task execution and a post experimental phase in which the subject was asked to retrospect what he did in the task execution phase.

Table 2. Characteristics of different phases of the study

Pre-experimental	Diary report
Experimental	Interpreting
Post-experimental	Retrospection

In the pre-experimental phase, the subject was provided with a diary form accompanied by relevant instructions. We had an informal meeting with the subject and the purpose of the study was explained to him, he appreciated the idea and promised to do all his best to collaborate with the present researchers.

Asking the subject to listen to each of the sentences and translate them immediately without having access to a dictionary, the second researcher recorded the translated versions by a tape recorder. The recorded tape was then distributed among the same group of university professors to be rated. The purpose of this phase was to estimate the inter-rater reliability of the scores given by the raters.

The participant

The participant of this study is a 35 year old male university professor who holds an MA in Teaching English as a Foreign Language (TEFL) and works in the department of English and Translation of Imam Reza University. In addition to translation courses which he has been teaching, he has taught English lab courses and is generally known as highly proficient in English translation and interpreting by both his colleagues in the department and his students. His class evaluation by students which is normally done at the end of each term shows that he is 2 Standard Deviation (+ 2 sd) above the mean in comparison to his colleagues in the department. He also attended 2 international occasions as an interpreter, namely Asian Youngsters' Games 2002 and World Conference of Shiite in Islam 2005. Unfortunately, in Iran there is no academic organization responsible for qualifying interpreters and the majority of all those who are hired as interpreters for different occasions are selected on the basis of familiarity of these organizers with highly professional interpreters.

Results and discussion

This section expounds the results of the study first by analyzing the data obtained in the experimental phase. Then it pays attention to both pre-experimental (i.e., diary report) and post-experimental phases (i.e., retrospection) together since the information on retrospection completes those of the diary report. But as for the interpreting test which contained 14 sentences (see Appendix) to be translated from L1 to L2 and vice versa, we provided the recorded results to two English professors teaching in English Language and Literature Department at Ferdowsi University of Mashhad to verify the acceptability of the rendered texts. We asked them to holistically evaluate the translations ignoring a rigid evaluation. We had this in mind since in most occasions for a single sentence there is more than one translation which may be functionally and pragmatically acceptable. Therefore, with the exception of one sentence mainly the first sentence of the idiomatic test, almost all the rest were translated correctly by the interpreter.

During one month period of the pre-experimental phase, the participant provided us with 8 A-four-size pages at the end of the period. The report roughly contained a variety of both L2 and interpreting activities which are then given organization in this section.

Table 3. Summary of interpreting activities done by the participant based on his one month diary

Type of activity	Time spent (hour)	venue
Class (interpreting)	48	University
Listening to music (e.g., Jimmy Hendrix)	31	Car, street, home
Watching TV programmes	31	home
Text interpreting	7	home
Reading	8	Home, university
	Total: 125	

As can be seen, class activity devotes the highest number of hours to interpreting. Although this activity is partially enforced by the department since university teaching staffs are normally expected to teach certain courses, the opportunity should be seized as a way of practicing interpreting. Teachers normally learn through what they teach inasmuch as effective teaching requires lots of preparations and at times teachers have to learn new linguistic items. In a translation course different objectives are to be met by learners. Oral and

simultaneous translation was one of the courses that the subject of this study was engaged in. In his diary, he referred to some instances where he needed to provide relevant translation for some utterances. In one of his diaries he wrote: 'upon being asked for a translation for the expression 'what's the catch' 'what's the matter?' [in Farsi] was the closest I came be'.

Next to teaching activity is listening to a variety of L2 programmes such as Bill Cosby show, Jimmy Hendrix, car talk show, Alister Cook show, Johnny Cash songs. In countries such as Iran where the opportunity to talk to native speakers of English is weak, exposure to English language programmes is an obligation for interpreters who would like to remain up-to-date. These programmes normally contain cultural, social and political information which are all necessary for an interpreter.

What characterizes this activity is a variety of listening. In fact, L2 listening is an important skill for all interpreters and is the first skill to be developed with regard to interpreting. This has been captured by the subject of the study. The second feature of listening activity is the frequency of practice. In so many instances the subject reported that he listened to some programmes for 10 times. He wrote: 'on the way to university, I listened to a song by Johnny Cash for more than 8 times on my integrated MP3 player'. In his retrospective explanations he said: 'its musical rhythm is so interesting and I am more interested in recording it for class purposes'. Making full use of the opportunities available is a third dominating feature of his daily language activity. Reviewing his 30 days diary revealed that he grasped every single opportunity for this purpose. Examples are everyday listening to songs, shows on the way to the university, listening to certain programmes such as car talk while walking. In one of his diaries he wrote: 'I listened to the whole show even when I was in my office. Several times I had to take the ear pods out of my ears so that I could hear my students'. In few other occasions he wrote that he listened to car talk show when radio or TV was not available. 'I listened to the recorded 'car talk' on my mobile for the second time'. His activities are in line with the report by Abraham and Vann (1987) who found that good L2 learners seek out opportunities for natural language use.

The study of expert musicians by Ericsson *et. al.*, (1993) reveals that they spend much of their practice time on a solitary basis with full attention paid to the task. The findings also show that the best groups of expert musicians spend around 4 hours every day in solitary practice. Calculating the number of hours that the subject of this study spent every day in his translation-related activities, it was shown that he spent almost 3 hours every day in solitary practice hence more evidence for the validity of deliberate practice. It is important to note that the venue for much of the solitary practice happened to be home although his diary shows that he did some of his translation-related activities in such places as university and even car.

In one of his diaries he wrote that he assessed his interpreting ability by comparing it with an on-line CNN programme. 'In the evening, I watched a CNN programme about Iran in which the interviewee spoke Farsi first and after some seconds his words were translated into English. I tried to check my simultaneous translation and compared it with that of the CNN's'. Naiman *et. al.*, (1978) found that good language learners make effective crosslingual comparisons. These learners, as Elis (1994) suggests, monitor their L2 performance and try to learn from their errors.

In a similar vein, his attempt to keep abreast with novel information is reflected through lots of watching activities. However, his selection to watch certain types of films/ programmes

such as the BBC channel was not deliberate as his retrospective explanations confirm the fact. 'I don't watch films with special purpose in mind'.

Surprisingly, his written translation practices from L2 to L1 are not as much as his listening and watching activities. This can be justified due to an interpreter's assessment of his/her real needs. An interpreter is more often than not engaged in oral rather than written translation. This emphasizes the importance of listening and watching over reading and writing.

The time he spent for reading is somewhat equal to translation. However, his reading as he wrote in his diary is not a usual reading. It is a quick reading through his cell phone. In two of his diaries he wrote: 'In the afternoon, I read half a short story on my mobile and by 12 midnight I read it completely. Three days later he wrote: 'In the afternoon I read a book on politics while the radio was on in the background. In the evening, I started reading another book on my mobile'. In his retrospection report he added that he read these short stories just to make full use of the time available.

In their review, Ericsson and Lehmann (1996) found that (1) measures of general basic capacities do not predict success in a domain, (2) the superior performance of experts is often very domain specific and transfer outside their narrow area of expertise is surprisingly limited and (3) systematic differences between experts and less proficient individuals nearly always reflect attributes acquired by the experts during their lengthy training.

Hence, the difference between experts and less skilled subjects is not merely a matter of the amount and complexity of the accumulated knowledge; it also reflects qualitative differences in the organization of knowledge and its representation (Chi, Glaser & Rees, 1982). Experts' knowledge is encoded around key domain-related concepts and solution procedures that allow rapid and reliable retrieval whenever stored information is relevant. Less skilled subjects' knowledge, in contrast, is encoded using everyday concepts that make the retrieval of even their limited relevant knowledge difficult and unreliable. The superior quality of the experts' mental representations allows them to adapt rapidly to changing circumstances and anticipate future events in advance. The same acquired representations appear to be essential for experts' ability to monitor and evaluate their own performance (Ericsson, 1996) so they can keep improving their own performance by designing their own training and assimilating new knowledge.

No doubt, acquisition of a second language appears to depend among other things on two fundamental pillars: practice and motivation. It has long been considered that motivation plays an important role in successful attainment of goals. The literature on second language learning generally supports the notion that the rate and strength of 2nd language acquisition is a function of motivation (Ehrman and Oxford, 1995; Gardner et al., 1997; Ellis, 1994). Marinova- Todd *et.al.*, (2000) have pointed out the fact that some of the recently studied older beginners who achieve native-like proficiency are characterized by very high levels of motivation. Research which has concentrated on accounting for differences in the proficiency levels of learners had tended to emphasize the importance of individual learner factors (Ellis, 1985). We now know also that effective learners adopt an immense variety of strategies concerned with seeking communicative information and experiences, with deliberate learning through practice, and with developing a conscious awareness and control.

In a recent empirical study, Gardner, et al. (1997) referred to motivation as the individual's attitudes, desires and effort (our emphasis) to learn the L2 that is measured by three scales: (a)

attitudes toward learning the language, (b) desire to learn the language, and (c) motivational intensity. Studies that show the impact of practice on the attainment of second language skills (Ellis, 1994; Taguchi, 1997; Ioup, 1995) can be generally categorized into two sets: those that exert general impact and those producing specific impact. Whether the impact is general or specific relates to the degree of motivation intensity. A second language learner who succeeds in a language proficiency test such as the TOEFL for the purpose of getting admission into an academic course can be assumed to have been affected by the general practice impact. The learner's context or orientation, according to Gardner and MacIntyre (1991) is academic or career-related. While many such students who pass a TOEFL test are considered proficient in the target language within the interpretation boundaries of the test scores, there are still L2 learners who surpass boundaries of the TOEFL and reach native-like competence. For them practice makes a specific effect. Such learners are characterized by very high levels of motivation (Marinova-Todd *et. al.*, 2000). Examples of well-known learners can be found among famous writers such as Nabokov, Senghor, Becket and Narayan (Davies, 2003).

The impact of intense practice is an important issue to examine in the participant's record. The one month diary of the subject of this study has more to say with regard to his motivation to keep improving his performance in the interpreting related skills. In several instances, he talked about listening to certain programmes more than 8 times. His retrospection data reveal that this repetition was solely for the purpose of better improvement. Moreover, his high motivation can be inferred from his intense interpreting-related schedule in the presence of the possibility to listen and watch L1 programmes. In fact, in his daily activities, reference to L1 can hardly, if ever, be observed. In his retrospection he said: 'in actuality, due to lots of exposure to English, sometimes I feel that I am one-sided, mostly thinking in English and at times have problems with my native language. I think most interpreters are somewhat one-sided just like left-handed and right-handed people'. Back to Table.3 it is important to note that in his retrospection he reported that he has been practicing all the activities mentioned in the table for 10 years. Among the pioneering investigators of expertise, it was generally assumed that the relation between experts' extended experience and their performance in a domain was so close that 10 years of experience was not just necessary to become an expert but also sufficient (Ericsson *et.al.*, 1993). In an intensive study by Ericsson *et.al.*, (1993) and Simon and Chase (1973), the acquisition of expert performance in domain-related activities prior to attaining high level of performance requires around ten years of intense involvement before one reaches an international level in sports, sciences and the arts.

In his retrospection interview, we asked him if he were really instrumentally or integratively oriented. He chose the latter and said that he practiced interpreting just for getting higher levels of mastery in English. "I think", he added, "learning is a window to a new world and new experiences".

Interpreters' high motivation can also be interpreted through the eye of motivational self-regulation. Self-regulation refers to the individuals' abilities to monitor their own learning and make proper changes in the strategies they use (Ellis, 2008). In other words, self-regulated learners have been described as those with adaptable motivational attitudes and beliefs. Individuals who self-regulate their motivation keep themselves involved in academic tasks (Pintrich, 1999). The concept of motivational self-regulation emerged out of the new trend in psychology which considers motivation as dynamic and process based. Williams and Burden's (1997) motivational model, Dornyei and Otto's (1998) process based approach to motivation, and Dornyei' task motivation (2002) all were presented in this new trend in motivation. Williams and Burden (1997, p.121) maintained that motivation consisted of three phases on a

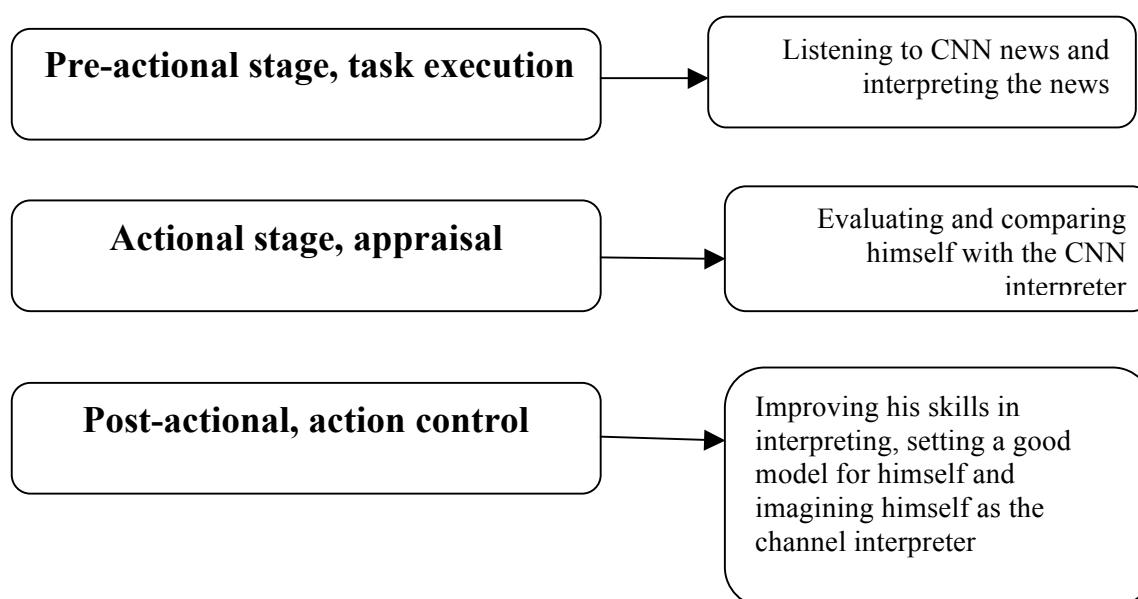
continuum namely, reasons for doing something, deciding to something, and finally sustaining effort. In this model, the first two phases are related to the arousal of motivation and the last stage concerns sustaining motivation. As the subject of the study explained in his diary and his retrospection, he had different reasons for being intensively exposed to English, watching films, catching up with the new TV shows. However, his efforts to listen to some programmes for more than 8 hours indicate his sustainable motivation to reach a high level of skill in interpreting. “In the afternoon, I read half a short story on my mobile and by 12 midnight I read it completely. Three days later he wrote: 'In the afternoon I read a book on politics while the radio was on in the background. In the evening, I started reading another book on my mobile’”.

Dornyei and Otto's (1998) model of motivation can also support interpreter's high motivation. Their model includes three stages. First, in the pre-actional stage motivation is generated. Second, during the actional stage, motivation is sustained and protected from the distracting factors, and third, in the post-actional stage motivation is aroused to follow other activities as a result of the evaluation of the previous activities. Dornyei's (2002) task motivation refers to a task processing system consisting of three interrelated mechanisms:

1. Task execution
2. Appraisal
3. Action control.

First, learners engage in a particular task, then, they try to compare, contrast, and evaluate the actual performances with the expected ones and finally, they use some self-regulatory strategies to sustain or enhance their effort in doing that particular task. As observed in the subjects' diaries, after getting involved in a task like listening to CNN programme, he tried to evaluate and compare himself with that of the CNN. Finally, he tried to improve his interpreting by setting a model for himself, boosting his knowledge in some domains, and imagining himself as the interpreter of the CNN (Figure 1).

Figure 1. Analysis of expert interpreters' high motivation



Dornyei (2005) asserted that the fundamental assumption under motivational self-regulation is that when sustaining their motivation, while performing language learning tasks, learners learn their skills better than those who fail to sustain their motivation. Ellis (2008) also maintained that the ability to self-control one's motivational state involves self-critical reflection of one's own actions and belief systems. Moreover, Wolters (2003) maintained that the ability to sustain motivation is important when individuals face problems interfering their initial motivational state. As observed the participant of the study tried to sustain his motivation in efficient interpreting by comparing his own interpretation with that of the CNN. In other words, by doing this he tried to improve his self-efficacy in interpretation. Self-efficacy refers to individuals' beliefs in their ability to succeed in executing a task (Bandura, 1986). It affects individuals' efforts to face challenges (Bandura, 1986). Bandura finds mastery experience and vicarious experience as two important sources of self-efficacy. Mastery experience refers to individuals' achievements to raise their level of self-efficacy. Vicarious experience indicates other individuals' achievements that motivate us to believe we have the same ability.

As mentioned by the participant of our study, he practiced interpreting to gain higher levels of mastery in English. He practiced listening to some programmes for ten times. Also his diary indicates that he almost used every single opportunity to enhance his interpreting skills. Furthermore, comparing himself with the CNN interpreter, a good model, encouraged him to make more efforts to reach the highest levels of interpreting (Vicarious experience).

Based on what was mentioned, motivational self-regulatory strategies refer to a variety of tactics and actions individuals use to sustain their effort in specific academic tasks (Wolters, 1999). Prior research has focused on different motivational self-regulatory strategies. One strategy found by Zimmerman and Martinez-Pones (1990) was the learners' providence of some extrinsic consequences like rewards for themselves. That is, learners arouse their desire to complete academic tasks by providing additional results for themselves. For example, learners can encourage themselves to finish their academic task by rewarding themselves a trip to the movies with their friends after the completion of the task. Or they can motivate themselves to finish their unfinished tasks by the image of watching their favorite football match or taking a hot shower after the full performance of the task. Such strategies were observed in the participant's diary. He tried to reward himself by watching new series and soap operas if he could interpret the sections of songs he was listening to.

Another self-regulatory strategy observed in his diary which improved his motivation was his self-image. Several times in his diary he imagines himself in a conference with the native speakers beside him. He also imagined himself on the stage interpreting whatever they said.

Conclusion

For an expert interpreter in the absence or rarity of interpreting situations, listening to a variety of programmes as well as watching different films are important ways of updating. Next to them comes translation and reading. More investigations are needed to see what strategies other interpreters who have more chance to communicate with native speakers of the target language employ. The study faced some shortcomings. The tasks given to the expert interpreter were decontextualized. As in the Dillinger's study (1989) the expert interpreter was not allowed to make preparation for their performance to assess if their background knowledge would be sufficient for accepting the assignment (Ericsson, 2000). As Ericsson maintains, 'highly specialized knowledge is critical to superior performance in many domains of expertise' (P: 208). The findings discussed in the previous section of this paper, raise

doubts about the common-sense view of professional development and suggest that highly motivated individuals can influence their attained level of performance to a much greater degree than traditionally assumed. If this is true then it would be very interesting to study the performance of highly accomplished individuals. In particular, it would be informative to study in more detail how elite individuals attained their expert levels of achievement.

References

- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Brown, R. A. (2004). Motivation for learning English among Japanese university students. *Information and Communication Studies*, 32, 1-12
- Chi, M., Glaser, R. and Rees, E. (1982). Expertise in problem solving. In R. Sternberg (Ed.), *Advances in the psychology of human intelligence* (pp. 7-75). Hillsdale, N.J.: Erlbaum.
- Dillinger, M. (1989). Component processes of simultaneous interpreting. Unpublished doctoral dissertation. Department of Educational Psychology, McGill University, Montreal, Canada.
- Dornyei, Z. (2002). The motivational basis of language learning tasks. In P. Robinson (Ed.), *Individual differences in second language acquisition* (pp.137-158). Amsterdam: John Benjamins.
- Dornyei (2005). *The psychology of the language learner: Individual differences in second language acquisition*. Mahwah, N. J.: Lawrence Erlbaum.
- Dornyei, Z. & Otto, I. (1998). Motivation in action: A process model of L2 motivation. *Working papers in applied linguistics*, 4, 43-69.
- Ehrman, M. E. & Oxford, R. L. (1995). Cognition plus: Correlates of language learning success. *Modern Language Journal*, 79(1), 67-89.
- Ellis, R. (1985) *Understanding Second Language Acquisition*. Oxford: Oxford University Press.
- Ellis, R. (1994). *The study of second language acquisition* . Oxford: Oxford University Press.
- Ellis, R. (2008). *The study of second language acquisition* (2nd ed.). Oxford: Oxford University Press.
- Ericsson, K. A. (1996). The acquisition of expert performance: An introduction to some of the issues. In K. A. Ericsson (Ed.), *The road to excellence: The acquisition of expert performance in the arts and sciences, sports, and games* (pp. 1-50). Mahwah, NJ: Lawrence Erlbaum.
- Ericsson, K. A. (2000). How experts attain and maintain superior performance: Implications for the enhancement of skilled performance in older individuals. *Journal of Aging and Physical Activity*, 8, 346-352.
- Ericsson, K. A., & Smith, J. (1991). Prospects and limits in the empirical study of expertise: An introduction. In K. A. Ericsson and J. Smith (Eds.), *Toward a general theory of expertise: Prospects and limits* (pp. 1-38). Cambridge: Cambridge University Press.
- Ericsson, K. A., Krampe, R. Th., & Tesch-Römer, C. (1993). The role of deliberate practice in the acquisition of expert performance. *Psychological Review*, 100(3), 363-406.
- Ericsson, K. A., & Lehmann, A. C. (1996). Expert and exceptional performance: Evidence of maximal adaptations to task constraints. *Annual Review of Psychology*, 47, 273-305.
- Gardner, R. C., Tremblay, P. F., & Masgoret, A. (1997). Towards a full model of second language learning: An empirical investigation, *Modern Language Journal*, 81, 334-362.
- Gardner, R. & MacIntyre, P. (1991). An instrumental motivation in language study: Who says it isn't effective? *Studies in Second Language Acquisition*, 13, 57-72.

- Ioup, G. (1995). Evaluating the need for input enhancement in post-critical period language acquisition. In D. Singleton & Z. Lengyel (Eds.), *The age factor in second language acquisition*. (pp. 35-123). Clevedon, UK: Multilingual Matters.
- Marinova-Todd, S. H., Marshal, D. B., & Snow, C. E. (2000). Three misconceptions about age and L2 learning. *TESOL Quarterly*, 34(1), 9-34.
- Naiman, N., Frohlich, M., Stern, H. & Todesco, A. (1978). The good language learners. *Research in Educational Series*, 7. Toronto: The Ontario Institute for Studies in Education.
- Pintrich, P. R. (1999). Taking control of research on volitional control: *Challenges for future theory and research. Learning and individual differences*, 11(3), 335-354.
- Rajabi, P. (2009). Cultural orientation and reading comprehension models: The case of Iranian rural and urban students. *Novitas-ROYAL (Research on Youth and Language)*, 3(1), 75-82.
- Rahimi, A., & Abedini, A. (2009). The interface between EFL learners' self-efficacy concerning listening comprehension and listening proficiency. *Novitas-ROYAL (Research on Youth and Language)*, 3(1), 14-28
- Simon, H. A., & Chase, W. G. (1973). Skill in chess. *American Scientist*, 61, 394-403
- Taguchi, E. (1997). The effects of repeated readings on the development of lower identification skills of FL readers. *Reading in a Foreign Language*, 11, 97-119.
- Williams, M., & Burden, R. (1997). *Psychology for language teachers*. Cambridge: Cambridge University Press.
- Wolters, C. A. (1999). "The relation between high school students' motivational regulation and their use of learning strategies", *Learning and Individual Differences*, 11(3), 281-299.
- Wolters, C. A. (2003). Regulation of motivation: Evaluating an underemphasized aspect of self-regulated learning. *Educational Psychologist*, 38(4), 189-205.
- Zimmerman, B., and Martinez-Pones, M. (1990). "Student differences in self-regulated learning: Relating grade, sex, and giftedness to self-efficacy and strategy use", *Journal of Educational Psychology*, 82, 51-59.

AppendixSentences containing *idiomatic* expressions in L1 (Farsi)

L1 (Farsi)	L2 (English)
مال حرام برکت ندارد.	Ill-gotten gains do not prosper.
فقط بلد است بله قربان بگویی.	He is a 'yes-man'.
جان علی بهانه گیری است.	John is a fuss pot.
آدم بی بوته ای است.	He has no pluck.
بولش با بارو بال نمی رود.	He has the money to burn.

Sentences containing L1 (Farsi) *collocations*

L1 (Farsi)	L2 (English)
سربازان شورش را در نطفه خفه کردند.	Troops <u>aborted the uprising</u> .
او باید قاضی را متقاعد می کرد که قصد دزدیدن پول و فرار کردن با آن را نداشته بود.	He has to convince the judge that he wasn't going <u>to abscond with the money</u> .
او در گذشته همه جور اتهام بی مورد به من بسته است.	She's made all sorts of <u>wild accusations against</u> me in the past.
منتقدان سناتور و رییس جمهور را به باد انتقاد گرفتند.	Critics <u>took aim at</u> both the senator and the president.
به منظور مبارزه با تورم دولت کنترل شدیدی بر ارز خارجی اعمال کرد.	In order <u>to combat inflation</u> , the government imposed strict controls on foreign currency.

Sentences containing L2 (English) *collocations*

L2 (English)	L1 (Farsi)
How can we trust a government that mentions community care and cutbacks <u>in the same breath</u> ?	
The affair led to a mid-term <u>Cabinet reshuffle</u> .	
Her political opponents ran <u>a whispering campaign</u> against her.	
The government has decided <u>to lift price ceilings</u> on bread and milk.	