

# The Relationship between Iraqi EFL University Students' Attention Control Strategies and Performance in Productive Skills

<sup>1</sup>Wi'am Majeed Mohammed      <sup>2</sup>Shaymaa' Abdulbaqi Al-bakri

*Dept. of English / College of Education / Ibn Rushd for Human Sciences*

*University of Baghdad, Iraq.*

1. [weaam.majeed2307p@ircoedu.uobaghdad.edu.iq](mailto:weaam.majeed2307p@ircoedu.uobaghdad.edu.iq)

2. [abdulbaqi@ircoedu.uobaghdad.edu.iq](mailto:abdulbaqi@ircoedu.uobaghdad.edu.iq)

Submission date: 3/3/2024

Acceptance date: / /2023

Publication date: 25/4/2024

## Abstract

This study aimed at finding out the relationship between Iraqi EFL university students' productive skills and the attention control strategies of focusing and shifting obstruction. The problem of this study can be expressed in this question: Is there a correlational relationship between Iraqi EFL university students' attention control strategies and performance in productive skills? The research random sample consisted of (360) university students at English Departments in three Iraqi universities. A modified version of Derryberry and Reed's Attention Control Scale (2004) was adapted to measure the subjects' attention control strategies. Second language productive skills were measured by a constructed oral test (interview) for speaking, and a (250) word-essay task for writing. Statistical data analysis was carried out by using (SPSS). Results revealed a positive correlation coefficient between the subjects' second language productive skills and both of the strategy of attention focus (at 0.589, with a computed t-value of 13.089) and the strategy of attention shifting obstruction (at 0.446, with a computed t-value of 9.911) at a significance rate of (0.05). Thus, this study concluded that attention control is a crucial factor in foreign language learning process since it helps students be more active in learning and developing language skills.

**Keywords:** Attention Control Strategies, Productive Skills, Relationship, EFL University students.

## العلاقة بين استراتيجيات التحكم في الانتباه لدى طلبة الجامعة العراقيين الدارسين للغة الانكليزية لغة أجنبية وبين أدائهم في المهارات الإنتاجية

وئام مجيد محمد      شيماء عبد الباقي البكري

كلية التربية / ابن رشد للعلوم الإنسانية / جامعة بغداد، العراق

## المستخلص

تهدف هذه الدراسة إلى معرفة العلاقة بين المهارات الإنتاجية لطلاب الجامعة العراقيين الدارسين للغة الإنكليزية لغة أجنبية وبين إستراتيجيات التحكم في الانتباه. وتألّفت العينة العشوائية للبحث من ٣٦٠ طالبا جامعيّا في أقسام اللغة الإنكليزية في ثلاث جامعات عراقية. واعتماد نسخة معدلة من مقياس التحكم في الانتباه الذي وضعه ديريبيري وريد لعام ٢٠٠٤ لقياس إستراتيجيات التحكم في الانتباه، بينما قيسَت المهارات الإنتاجية للغة الثانية باختبار شفوي (مقابلة) للكلام، وبمهمة كتابية لكتابة ٢٥٠ كلمة مقالية. وتحليل البيانات الإحصائية باستخدام برنامج (SPSS)، وكشفت النتائج عن وجود معامل ارتباط إيجابي بين المهارات الإنتاجية للغة الثانية لدى الطلبة

واستراتيجية تركيز الانتباه (عند ٠,٥٨٩، مع قيمة ت محسوبة تبلغ ١٣,٠٨٩) بقيمة (٩,٩١١) بمستوى دلالة (٠,٠٥). مع قيمة t محسوبة واستراتيجية إعاقه تحويل الانتباه (عند ٠,٤٤٦). وخلصت هذه الدراسة إلى أن التحكم في الانتباه هو عامل حاسم الأهمية في عملية التعلم لأنه يساعد الطلاب على أن يكونوا أكثر نشاطاً في التعلم وتنمية المهارات اللغوية.

**الكلمات الدالة:** استراتيجيات التحكم في الانتباه، المهارات الإنتاجية، العلاقة، طلاب الجامعة الدارسين اللغة الإنكليزية لغة إجنبية

## 1.Introduction

Attention control is one basic component of human beings' perception system, as manifested by the person's cognitive ability to concentrate on task-relevant information - such as the student's ability to seriously focus attention to the teacher in the classroom - while ignoring distractors, such as what is going on outside [1]. It is briefly defined as One's capacity to concentrate and adaptively redirect attention [2]. The two abilities of attention focus and attention shifting obstruction are major attention control strategies. The attention focus strategy allocates most attention to task-relevant stimuli. Attention shifting obstruction refers to an individual's capacity to reduce the impact of cues unrelated to the task at hand. A higher ability to inhibit interference enables the goal-oriented attentional control system to persist functioning with little disruptions.

### 1.1 Statement of the Problem

The function of attention control in foreign language acquisition—though potential with interesting possibilities—has been little explored [3]. This study is one further attempt at contributing to this domain, in view considering the intricate psycholinguistic problems at hand [4], the variety of cognitive resources recruited in foreign language acquisition [5], and the difficulties associated with native-language interference [6].

### 1.2 Research Question

The problem of this study lies in providing verifiable data to respond to the inquiry: Is there a correlational relationship between Iraqi EFL university students attention control strategies and their output in terms of productive abilities?

### 1.3 Study Aim

The aim of this paper is identifying the correlation between Iraqi EFL university students' attention control strategies and their output in productive skills.

## 2. Literature Review

### 2.1 A brief history about Attention Control Strategies

Being one aspect of the more general psychological construct of attention, AC has been described by philosophers throughout history since it is closely related to concepts of the thoughts the essence of perception, and consciousness [7]. Attention has also been the topic of research in psychology since its start as a scientific discipline. The process of attention control is closely related to executive functions (monitoring actions that make it easier to accomplish goals), especially working memory (the cognitive system of temporal information-hold) [8],[9],[1,p.42]. Additionally, AC is both stimulus-driven and goal-driven; i.e. determined by experience with a task and its associated stimuli. With little experience, attention control is primarily stimulus-driven, but becomes more goal-

oriented as experience accrues [10]. Another important approach to defining attention control is that of [11], who identifies the central executive as the attentional control system directing human ability to focus, divide, and switch attention.

[12] contend that attention is cognitively regulated by two separate systems, one is goal-oriented, the other is a stimulus-driven. Unlike the attentional system focused on goals—which has a Top-down management with anticipations and choice strategy—the system that is driven by stimuli—which has bottom-up management—is sensitive to notable signal. Significantly, the equilibrium between these two attentional control systems is modulated by stress and worry. Consequently, a high level of stress results in “...a decline in the impact of the attentional system focused on goals and an improvement in the attentional system driven by stimuli, causing compromised ability to focus attention, which causes deficiencies in the main executive's functioning on tasks [12, p.338]. This discrepancy is required to be examined with subjects carrying out specific, goal-directed motor activities.

## 2.2 Productive Skills

The term ‘skill’ refers to any learned power of doing something with competence. In relation to language acquisition, this term refers to one’s ability of using language in real-world interactive situations [13]. Language use involves the acquisition of the basic skills: listening, reading, speaking, and writing. These major skills are usually separated into two types: receptive and productive. Receptive skills (listening and reading) are those used in understanding; productive skills (speaking and writing) incorporate the production of language. Though receptive skills are acquired before productive skills, It's vital to remember that all of them are interconnected and interdependent within one bond, to the effect that interactive communications require the use of all of them most of the time [14].

The fact that language involves competence in four skills has led to the theory of seeing second language acquisition as one specific type of human skill acquisition [15]. According to this theory, skill acquisition is seen to be a particular type of education, requiring knowledge encoding in memory regarding an external or mental occurrence.. where competent behaviors can be normalized and even automated under certain circumstances. [16]. Similar to acquiring any other talent (e.g. playing the piano), SLA requires a lot of practice.

The two language productive skills of speaking and writing are essential in generating the output of meaningful interpersonal and presentational language production in the context of situation both in spoken and written forms. Productive skills - also known as active skills-refer to a process of conveying specifics through speech or text[17].

[18] viewed productive skills as the actual oral and written production of language in concrete situations.

Speaking is an important and necessary language skill, it is not an easy or simple process that occurs suddenly, but rather it is a complex process that requires thinking, formulation, and understanding [19]. performance in this skill can be improved via oral practice of role-play, storytelling, and group discussions [20].

Writing is one core productive skill in Foreign language learning and acquisition, enabling learners to actively communicate the language in written form. It requires both physical and mental activities [21].

Writing is a fundamental skill of language that learners should be competent in order to fulfill the objectives of studying a foreign language [22].

Writing is a process of building macrostructure from micro units [23].

### 2.3 Previous Studies

In [3,p.653], the co-researchers Explored the correlation between attention control and expertise in the intricate cognitive The processes of learning another language. The individuals involved in the study were proficient in both English and French, making them bilingual in these two languages in Concordia University, having different levels of proficiency in their second language (French). In an animacy judgment task, proficiency was defined as the ability to access words efficiently, as demonstrated by the variation in the rate of response time modified for performance in the first language on the identical task. Attention control was measured by the shift cost achieved in a language form of the alternate performs task-switching model. Data analysis indicated that attention control was responsible for (59%) of the difference in skill, and that the ability to focus in a second language alone explained (32%) of the distinct variation in competence, demonstrating an elevated level of dimension expertise (second language) particularity in the connection between proficiency and attention control.

## 3. Methodology

### 3.1 Design of the Study

This study has implemented a correlational design, which is a type of descriptive research that assesses an existing condition by collecting data to determine the extent a relationship obtains between two or more quantifiable variables [24]. Accordingly, it incorporates a statistical test to determine the propensity for the productive skills to correlate with the attention control strategies of focusing and shifting obstruction [25].

### 3.2 Population and Sample

The population of the current research consisted of Iraqi fourth year College students at the Departments of English who were studied in Universities—during the academic year 2022/23, which stands at (3310). The researcher has selected a random sample of (360) students to sit in three tests. This random sample comprised (10.87%) of the total study's population, which is quite representative; i.e., more than double the significance threshold of (5%).

### 3.3 Instrument

[26] modified version of 'Attention Control Scale' has been adopted to measure the sample's attention control strategies. This scale is comprised in 20 items divided into two subscales that assess the two key strategies of attention control: attention focus plus attention shifting obstruction. The first strategy of attention focus includes nine items; the second strategy of attention shifting obstruction includes eleven items

For the purpose of assessing the subjects' productive skills, two tests have been constructed. The instrument used to assess students' speaking skill was an oral proficiency interview where respondents engaged in structural conversation with an

interviewer. This technique is referred to as oral proficiency interview [27]. It consisted in a sequence of warm-up questions, then a set of questions in which students' responses have been audio-recorded.

To assess the students' ability to write, the participants are asked to write an essay of (250) words about the theme: "social media makes our life easier than before".

### 3.4 Data Collection Procedures

#### 3.4.1 Face Validity

Face validity denotes the degree to which a tool evaluates what it is intended to evaluate, and, as such, enables the accurate analysis of its scores [24,p.19].

The tests' formats have been submitted for face validation to (20) applied linguistics and ELT professors, who approved the instruments' items and their scoring schemes.

#### 3.4.2 Construct Validity

Construct validity is how much suitable and adequate the conclusions and actions based on test results are [28]. Stated differently, it relates to how well a test measures the concept (i.e. hypothetical construct) it evaluates [24,p.21]. It's crucial to establishing the overall validity of the measuring instrument.

Construct validity of the measuring tools has been confirmed by calculating: i.) test items' discrimination index; ii.) the correlation coefficient between item's score and the overall score of each tool; iii.) tests items' internal consistency, and degree of difficulty of the item. The outcomes obtained via the aforementioned measures have indicated that there exists a statistical importance for each correlational coefficient, meaning that the construct validity of the research instruments of this study is realized.

#### 3.4.3 Reliability

Reliability describes the extent to which a tool consistently evaluates what it is intended to assess, and, as such, is one of the most important aspects of any scientific equipment [24, p.35].

The reliability of the instruments have been examined as follows:

- 1- The reliability of attention control strategies' scale has been verified via the two procedures of: i.) test retest, and ii.) the application of alpha-Cronbach coefficient equation for measuring the scales' internal consistency. In the first method, the test has been administered to a fixed sample of (40) student, then re-administered to the same fixed sample, with an interval of (14) days from its first administration. Pearson correlation coefficient formula has been applied to compare the scores of these two same tests, which has revealed the high reliability values of (0.89) for attention focus strategy, and (0.90) for the strategy of attention shifting obstruction. The second method of applying alpha Cronbach coefficient to the scores of the basic sample of (360) students has yielded the two high internal consistency coefficients of (0.86) for attention focus strategy, and (0.88) for the strategy of shifting attention obstruction.
- 2- Alpha Cronbach's formula has been used to measure the reliability of the two productive-skills' tests by applying it to the scores of the basic group of (360) students. The coefficients of the speaking test have revealed a high reliability rate of (0.92), and (0.90) for the writing test, with a mean coefficient of (91%), which is highly above the minimally acceptable bench-mark of (70%).



#### 4. Results

To verify the relationship between attention control strategies and the sample's productive skills, Pearson correlation coefficient formula has been applied to the scores of the research sample on the scale of attention control strategies and their scores in the tests of productive skills.

**Table 1:** *Correlation between Attention Control strategies and Productive Skills*

AC Strategy	Productive Skill	No of Subjects	AC Correlation With the Productive Skill	T-Value		Significance Level (0.05)
				Computed	Critical	
Attention Focus	Speaking	360	0.595	13.222	1.96	Significant
	Writing	360	0.572	13.711	1.96	Significant
	Both Skills	360	0.589	13.089	1.96	Significant
Attention Shifting Obstruction	Speaking	360	0.457	10.155	1.96	Significant
	Writing	360	0.428	9.511	1.96	Significant
	Both Skills	360	0.446	9.911	1.96	Significant

The following statements can be made on the basis of the values in the table above:

1. The values of The coefficient of correlation between attention focus strategy and speaking skill, writing skill, and productive skills as a whole is (0.595; 0.572; and 0.589), respectively. To measure the significance of the relationship between these variables, a t-test was used to calculate their correlation coefficient. The calculated t-values are (13.222; 13.089; and 12.711), respectively, both greater than the critical value of (1.96), at a level of (0.05), and (358) degree of freedom. These t-values mean that the relationship between the strategy of focusing attention and the productive skills as a whole is a positive correlation, albeit to a varying extent.
2. The values of the correlation coefficient between the strategy of attention shifting obstruction on the one hand and the speaking skill, writing skills, and the productive skills as a whole is (0.457; 0.428; and 0.446), respectively. A t-test has been applied to measure the significance of the correlation coefficient among these three variable. The outcome of this test has been a t-value of (10.155; 9.511; and 9.911), respectively, which are both higher than the crucial value of (1.96), at the level of significance (0.05), and the (358) degree of freedom. This suggests that the correlation between the strategy of attention shifting obstruction and the PSs is a direct one, though to a varying extent, which is a reflection of the variations in the subjects' scores.
3. The resultant significant correlation between Attention Control Strategies and Productive Skills agrees with [3, p.p 644].

#### 5. Conclusion

The independent variable of Attention Control Strategies is strongly correlated to the subjects' performance in the dependent variables of speaking and writing. The relationships between the independent variable and the dependent variable is a direct, positive one.

## 6. Recommendations

Due to the direct, positive relationship obtaining between Attention Control Strategies and Language productive skills, formal teaching courses geared to specifically enhance practising this independent variable need be compiled and implemented in the four stages of English Language Departments in the Colleges of Education.

## CONFLICT OF IN TERESTS

There are no conflicts of interest

## References

- [1] Posner, M. I. & Petersen, S. E. (1990). The attention system of the human brain. *Annual Review of Neuroscience*, 13.
- [2] Chen, J. Y. C., & Barnes, M. J.(2012). Supervisory control of multiple robots: Effects of imperfect automation and individual differences. *Human Factors*, 54(2).
- [3] Segalowitz, N. & Frenkiel-Fishman, S. (2005). Attention control and ability level in a complex cognitive skill: Attention shifting and second-language proficiency. *Memory & Cognition*, 33(4).
- [4] Kroll, J. F., & Sunderman, G.(2003). Cognitive processes in second language learners and bilinguals: The development of lexical and conceptual representations. In C. J. Doughty & M. H. Long (Eds.), *The handbook of second language acquisition*. Blackwell.
- [5] De Groot, A. M. B., & Kroll, J. F. (Eds.) (1997). *Tutorials in bilingualism: Psycholinguistic perspectives*. Erlbaum.
- [6] Odlin, T. (2003). Cross-linguistic influence. In C. Doughty & M. Long (Eds.), *The handbook of second language acquisition*. Blackwell.
- [7] Davidson, M. C., Amso D., Anderson, L. & Diamond, C. (2006). Development of cognitive control and executive functions from 4 to 13 years: Evidence from manipulations of memory, inhibition, and task switching. *Neuropsychologia*, 44.
- [8] Astle, D. E. & Scerif, G. (2009). Using Developmental Cognitive Neuroscience to Study Behavioral and Attentional Control. *Developmental Psychobiology*, 51(2).
- [9] Miyake, A. & Shah, P. (eds.) (1999). *Models of working memory. Mechanisms of active maintenance and executive control*. Cambridge University Press.
- [10] Roper, Z. J. J. & Vecera, S. P. (2014). Visual short-term memory load strengthens selective attention. *Psychonomic Bulletin & Review*, 21(2).
- [11] Baddeley A. D. (2000). The episodic buffer: a new component of working memory? *Trends in Cognitive Sciences*, 4(11).
- [12] Eysenck, M., Kerakshan, N., Santos, R. & Galvo, M. (2007). Anxiety and cognitive performance: Attentional control theory. *Emotion*, 7 (2).
- [13] Aydogan, H. (2014). The Four Basic Language Skills, Whole Language & Integrated Skill Approach in Mainstream University Classrooms in Turkey. *Mediterranean Journal of Social Sciences*, 5.

- [14] Ellis, N. & Wulff, S. (2015). Usage-based approaches in second language acquisition. In Bill Van Patten and Jessica Williams (Eds.) *Theories in Second Language Acquisition: An Introduction*, 2.
- [15] Dekeyser, R. (2007). Skill acquisition theory. In Van Patten, B. & Williams, J. (Eds.), *Theories in second language acquisition: An introduction*. Lawrence Erlbaum.
- [16] Speelman, C. (2005). Skill acquisition: History, questions, and theories'. In C. Speelman & K. Kinser (Eds.), *Beyond the learning curve: The construction of mind*. Oxford University Press.
- [17] Littlewood, W. T. (1981). *Communicative language teaching: An introduction*. Cambridge University Press.
- [18] Chomsky, N. (1965). *Aspects of the theory of syntax*. MIT Press.
- [19] Abdelkader, M. H. (2023). The Level of Creative Speaking Skills among Middle School Students. *Alustath Journal for Human and Social Sciences*, 62(3), Doi: <https://doi.org/10.36473/ujhss.v62i3.2237>
- [20] Abdulrazzaq, A. H. (2023). Teachers' and Learners' Attitudes towards the Place of the Speaking Skill in the EFL Curriculum. *Alustath Journal for Human and Social Sciences*, 62, (1). <https://alustath.uobaghdad.edu.iq/index.php/UJIRCO/article/view/2004/1497>
- [21] Al-Kubaisy, I. R. M. (2018). New Perspectives in Teaching Writing Skill Communicatively. *Al-Ustath Journal for Human & Social Sciences*, 225(1). <https://alustath.uobaghdad.edu.iq/index.php/UJIRCO/article/view/132/109>
- [22] Abbas, S. H., & Al-bakri, S. A. (2018). The Effect of Pair Writing Technique on Iraqi EFL University Students' Writing Performance and Anxiety. *Arab World English Journal*, 9(2). DOI: <https://dx.doi.org/10.24093/awej/vol9no2.2>
- [23] Mohammed, H. A. & Jasim, A. A. (2022). The Impact of Group Testing as a Strategy on University Students' Writing Composition Development. *Alustath Journal for Human & Social Sciences*, 61(1), <https://doi.org/10.36473/ujhss.v61i1.1913>.
- [24] Mills, G., & Gay, L. (2019). *Educational Research: Competencies for Analysis and Applications*. Pearson.
- [25] Creswell, J. W. (2012). *Educational research: planning. Conducting, and Evaluating quantitative and qualitative research* (4th Ed.). Pearson.
- [26] Derryberry, D., & Reed, M. (2004). Attentional control, trait anxiety, and the regulation of irrelevant response information. Manuscript.
- [27] Al-Bakri, Sh. & Kadhim, F. (2016). The Impact of CRTs Model in Teaching Grammar on Iraqi EFL University Students' Oral Performance. *Al-Ustath Journal for Human and Social Sciences*, 216(1).
- [28] Messick, S. (1998). Test validity: A matter of consequence. *Social Indicators Research*, 45(3).