

## The Correlation between Language Aptitude of Egyptian Learners of English as a Foreign Language and Their English Grammar Achievement

العلاقة بين الإستعداد اللغوي للمصريين دارسي اللغة الإنجليزية كلغة أجنبية ومدى إنجازهم لقواعد  
اللغة

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المستخلص باللغة العربية

تتناول هذه الدراسة إحدى الجوانب الإدراكية للإختلافات الفردية التي تمثل جزءاً شديداً الأهمية ولها دوراً جوهرياً في عملية تعلم اللغة الأجنبية والذي يكمن في الإستعداد اللغوي لدارسي اللغة الإنجليزية. ويتمثل الهدف الرئيسي للبحث في التحقق مما إذا كان هناك ارتباط بين متغيرين متعددي الأوجه: وهما الإستعداد اللغوي لدارسي اللغة الإنجليزية المصريين للمستوي المتوسط ومدى إنجازهم لقواعد اللغة. كما تهدف الدراسة إلى فحص كيفية الأرتباط بين كل من درجات الإختبارات الفرعية لأختبار الاستعداد اللغوي وبين الدرجات التي تم الحصول عليها في إختبار تحصيل قواعد اللغة الإنجليزية. بالإضافة إلى المقارنة بين أداء الذكور والإناث في كل من إختبار الإستعداد اللغوي و إختبار التحصيل لقواعد اللغة الإنجليزية. علاوة على ذلك، تهدف الدراسة إلى بيان أوجه التشابه والإختلاف بين نتائج البحث الحالية وبين نتائج الأبحاث والدراسات التجريبية أو العملية السابقة. بالإضافة إلى الأهداف المذكورة أعلاه، فتحاول الدراسة إلقاء الضوء ، من قبل المعلمين ، على الدور الجوهري الذي يلعبه الذكاء اللغوي في السياق التعليمي من حيث إختيار المواد الأكثر تأثيراً وأيضاً إختيار أساليب التدريس الأكثر فاعلية والتي تتناسب مع مهارات وقدرات دراسي اللغة الإنجليزية بناءً على تحصيلهم في إختبار الإستعداد اللغوي. وتمثل العينة المشاركة في الدراسة من ٤٦ مصرياً من الملتحقين في دورة اللغة الإنجليزية بالمستوي المتوسط بمركز اللغات والترجمة بجامعة القاهرة. وتم تعيين تصميم الإرتباط الكمي في منهجية البحث، كما تم إستخدام إختبار الإستعداد اللغوي المكون من خمسة أجزاء وتم تصميمه على غرار إختبار الإستعداد اللغوي لكارول وسابون (١٩٥٩) وأيضاً إختبار إنجاز أو تحصيل قواعد اللغة الإنجليزية لجمع بيانات المشاركين في الدراسة. كما تم إجراء معامل إرتباط بيرسون وإختبار t لتحليل البيانات التي تم الحصول عليها . وأشارت نتائج البحث إلى أن هناك علاقة إرتباط موجبة مؤثرة بين درجات كل من إختبار الإستعداد اللغوي و درجات إختبار التحصيل لقواعد اللغة

الإنجليزية (5 2 6 ، 0 = r) . وأظهرت النتائج أيضا أن درجات كلا من الجزء الرابع والخامس لإختبار الاستعداد اللغوي هما الأكثر ارتباطا وعلاقة وثيقة بدرجات إختبار تحصيل قواعد اللغة الإنجليزية، بينما أظهرت النتائج وجود علاقة ضعيفة بين درجات الأجزاء الثلاثة الأخرى لإختبار الإستعداد اللغوي وإختبار تحصيل قواعد اللغة الإنجليزية. كما أنه لم يتم الكشف عن فروق ذات دلالات إحصائية قوية بين الذكور والإناث في إختبار الاستعداد اللغوي، بينما تفوقت الإناث على الذكور في إختبار تحصيل قواعد اللغة الإنجليزية. وألقت نتائج الدراسة الضوء على ضرورة حسن إستغلالها كرؤي مستقبلية لعمليات تدريس وتعلم اللغة الأجنبية وكذلك تطبيقها بشكل فعال في التطبيقات التعليمية.

الكلمات المفتاحية: اللغة الثانية ، الفروق الفردية ، الإستعداد اللغوي ، إختبار الإستعداد اللغوي ، تحصيل قواعد اللغة الإنجليزية

### Abstract

The present study addresses a cognitive aspect of individual differences which influences the process of foreign language learning; language aptitude. The major aim of this study is to investigate whether there is a correlation between two multifaceted variables: intermediate Egyptian EFL learners' language aptitude and their English grammar achievement. It also examines how each of the five-subtest scores of the Modified Modern Language Aptitude Test (MMLAT) correlate with the scores obtained on the English grammar achievement test. In addition, the study compares between males and females' performance on the MMLAT and English grammar achievement test. Moreover, it aims at comparing and contrasting the findings of the current study with those of the previous empirical studies. In addition to the above aims, it attempts to enlighten educators about the essential predicting role of foreign language aptitude in instructional contexts in terms of selecting the most effective materials and teaching methodologies that fit learners' skills and capabilities based on their data obtained on the foreign language aptitude test. Participants were a sample of

46 intermediate-level Egyptians enrolled in a general English language course in the Center for Foreign Languages and Professional Translation, Cairo University. The study employed a quantitative correlational design. A Modified Modern Language Aptitude Test, composed of five subcategories and modelled on the Modern Language Aptitude Test of Carrol and Sapon (1959) and an English grammar achievement test were administered to gather the participants' data. Pearson product-moment correlation coefficient and t-test were conducted to analyze the obtained data. The results indicated that there is a significant positive correlation between the scores of both language aptitude and English grammar achievement tests ( $r = 0.625$ ). The scores of two subtests of the modified modern language aptitude test; Paired Associates and Words In Sentences, were most correlated significantly with the English grammar achievement test scores, while the other three subtest; Number Learning, Phonetic Script and Spelling Clues, held a weak correlation with English grammar achievement. However, no significant difference between males and females was detected on the modified modern language aptitude test, whereas, the females outperformed the males on the English grammar achievement test. The findings have significant insights for the processes of language teaching and learning as well as educational implications.

Keywords: L2, FL, individual differences, Foreign Language Aptitude, Modern Language Aptitude Test, English grammar achievement

## 1. Introduction

Learning a second/foreign language is a complex process that is influenced by a number of unique differences that account for learners' success or failure. These include the complex system of language itself as a linguistic structure (VanPatten & Smith, 2015), and individual differences such as language aptitude, intelligence, learning and cognitive styles, age, personality, beliefs, motivation, self-esteem, learning strategies, age, and anxiety. Among these factors affecting a second language learning process is the pivotal role of individual differences (IDs). A plethora of empirical studies have dominated the significant contributions of IDs to L2/FL proficiency and achievement in the four main language skills and subskills. Dörnyei (2005) defines individual differences as those "dimensions of enduring personal characteristics that are assumed to apply to everybody and on which people differ by degree" (p. 4). He argues that individual differences affect learning processes, inclinations, and final achievements of L2/FL learners. Similarly, Dörnyei and Skehan (2003) point out that IDs are the propelling engines of all L2/ FL learning efforts without which the instruction and exposure in L2 were not proven efficiently. A thorough investigation of second language acquisition literature over the past 50 years has revealed the importance of IDs for both theoretical and empirical data about language learning and learners of different proficiency levels. Likewise, Griffiths and Soruç (2020) substantiate that individual differences are the significant predictors of learners' achievement.

According to Ellis (2008) individual differences are categorized into three groups: cognitive, affective and social factors.

While the social factors include the impact of socio- economic environment on language learning, the affective and cognitive factors include language aptitude, motivation, anxiety, learning style, gender, age and personality. As noted by Ellis (2004) “personality, language aptitude, desire to learn a second language, willingness to communicate, motivation, learning strategies, and learning styles are the main domains of individual differences among language learners” (p. 525). Therefore, learners differ in their rate of language acquisition and in their level of language achievement and these variations determine the success or failure of learners in language learning (Li, 2015). Moreover, the study of language learner characteristics in respect of which individuals vary has a long tradition in foreign language research and nobody disputed the significance of such factors as motivation or language aptitude.

A considerable body of IDs research has examined the impact of affective factors on second or foreign language learning, but those related to cognitive factors, more specifically language aptitude on learning and understanding grammar, among language learners has not attracted sufficient theoretical or empirical interest despite the consistent high predictability of L2 success compared to other variables (Carroll, 1962; Skehan, 1986b; Ehrman & Oxford 1995; Ehrman, 1998). In this respect, this study focuses on foreign language aptitude which is thought to be one of the core variables of IDs among learners with their pertinence in language acquisition and learning. Carroll (1981) defines language aptitude as “a set of cognitive abilities that are predictive of how well, relative to other individuals, an individual can learn a foreign language in a given

amount of time and under given conditions” (p. 386). It is clear, then, that language aptitude would predict learners’ language achievement and as maintained by Robinson (2001) that language aptitude is a cognitive ability that processes information for language learning. Similarly, Ellis and Shintani (2014) substantiate that foreign language aptitude is strongly correlated with learners’ outcomes, amongst all the other individual differences during the process of language learning.

These findings lend credence to Carroll’s (1981) notion that foreign language aptitude represents a substantial predictor of language proficiency and a potential rate of language acquisition for both young and older learners. He further stipulates that the concept of language aptitude does not imply that some learners are able to master an L2/FL while the others are not, but all learners are expected to acquire or learn a foreign language under the appropriate circumstances and being cognitively healthy. He claims that language aptitude only determines the rate with which a particular learner would successfully acquire an L2/FL. Furthermore, it is believed that all learners are able to achieve high performance during the process of foreign language learning, but those of lower language aptitude would do so with difficulties and for a longer period of time and effort. DeKeyser, Alfi-Shabtay, and Ravid (2010) also conclude that language learning aptitude plays a pivotal role in adult second language acquisition.

As a result, Carroll (1990) attempts to define the four components of foreign language aptitude which are the following: grammatical sensitivity – the ability to recognise the grammatical

functions of words, memory abilities or rote learning ability – the ability to remember associations, phonetic coding ability – the ability to identify unfamiliar sounds –, inductive language, and learning ability – the ability to identify rules and patterns.

Several foreign language aptitude batteries have been designed to measure or assess L2/FL learners' language aptitude explore in order to explore how quickly and easily one can learn a foreign language and to predict the likelihood of learners' success. The most well-known instruments are the Modern Language Aptitude Test (MLAT; Carroll & Sapon, 1959), and the Pimsleur Language Aptitude Battery (PLAB; Pimsleur, 1966). Within these instruments, the MLAT is the most influential test which has several adaptations. For example, a version for native speakers of Japanese (LABJ; Sasaki, 1993). Besides, there are tests designed for the American military (DLAB; Petersen & Al-Haik, 1976; VORD; Parry & Child, 1990).

Given this, it can be said that foreign language aptitude as a cognitive individual difference is a neglected subject in Egypt and there is no a complete version of the MLAT. Accordingly, this study aims to investigate the correlation between foreign language aptitude of Egyptian EFL learners and their English achievement to identify the predictability of this cognitive variable (i.e., foreign language aptitude) in language learning success.

In the light of abovementioned comprehensive overview, then, to re-address this neglected area of individual differences (IDs) and examine the correlation between foreign language aptitude and English grammar achievement in the Egyptian context.

## 2. Questions of the Study

Based on the defined objectives of this investigation, the following research questions have been posed:

1. What is the correlation between intermediate Egyptian EFL learners' language aptitude and their English grammar achievement?

The above main question is factorized into the following sub-questions:

- a. What is the correlation between Number Learning and English grammar achievement?
- b. What is the correlation between Phonetic Script and English grammar achievement?
- c. What is the correlation between Spelling Clues and English grammar achievement?
- d. What is the correlation between Words In Sentences and English grammar achievement?
- e. What is correlation between Paired Associates and English grammar achievement?
- f. What are the differences between males and females' performance on the MMLAT and its subtests?

What are the differences between males and females' performance on the English grammar achievement test? 3.

## 3. Objective of the Study

The primary objective of this study is to investigate the correlation between these two variables; foreign language aptitude and English grammar achievement of Egyptian learners of intermediate level.



#### 4. Review of Literature

When learning or teaching a second or foreign language, individual differences are worth investigating for their practical implications for language teaching and for their significant contribution to the theory of language development and the impact they have on the process of learning. Roberts & Meyer (2012) highlight that individual differences among learners allow to test hypotheses through conducting correlational studies. Moreover, Lightbown & Spada (2013) point out that examining and understanding the relationship between learning contexts, personality traits, cognitive characteristics, and success in language learning is one of the main interests to researchers and educators in order to better understand second language learning and teaching with more focus on the different characteristics of L2 learners and thus teach them more efficiently. Learning speed and the level of proficiency attained are two of these individual differences that are particularly significant because, if identified in advance, they are used to classify learners so that they receive the suitable methods, techniques and instruction for their potentials and needs (Roberts & Meyer, 2012). In other words, a number of factors of the learners' baggage could have an effect on success in foreign language learning. For instance, gender or age which are easily identifiable variables and intelligence, aptitude, motivation, learning styles, learning strategies or personality factors that are more challenging to understand , due to their measurement obstacles (Cohen, 2010). Ranta (2008), accordingly, claims that practitioners who advocate the learner- centeredness approach

should address learners' cognitive processing needs not only their learning preferences and real life goals. Additionally, aptitude profiles of their learners could help teachers provide differentiated instruction that suits their learners to achieve the best level of language proficiency.

The notion of language aptitude diagnostic tests emerged in the 1920s and 1930s, and the golden era was the 1960s when the American psychologist, John. B. Carroll led the field of language aptitude research with his definition of language aptitude as a “an individual's initial state of readiness and capacity for learning a foreign language, and probable facility in doing so given the presence of motivation and opportunity” (Carroll, 1981, p. 86). Over the past 60 years, several definitions of language aptitude have been proposed, for instance: “Basic abilities that are essential to facilitate foreign language learning” (Carroll and Sapon, 1959, p.14). “A range of different cognitive factors making up a composite measure that can, in turn, be referred to as the learner's overall capacity to master a foreign language” (Dörnyei, 2005, p.249).

“Second language learning aptitude is characterized as strengths individuals have –relative to their population in the cognitive abilities information processing draws on during L2 learning and performance in various contexts and at different stages” (Robinson, 2005, p.46).

“Language aptitude is a theoretical construct, operationalized in the form of a test, which aims to predict phenomena that characterise SLA (such as incidental learning, meta linguistic

awareness, fossilisation, and others), and the extent to which successful SLA occurs as a result' (Robinson, 2013, p.1).

Robinson (2013) supports this definition stating that: “higher aptitude predicts more successful adaptation to instructed, or naturalistic exposure to the L2, as measured by demonstrable faster progress in learning, and in higher levels of ultimate attainment in proficiency at the end of a course of instruction, or following a period of naturalistic exposure to the L2” (p.1).

“Language aptitude refers to cognitive abilities that are predictive of the learning rate and ultimate attainment in a second language” (Li, 2020). “Language aptitude refers to the kind of ability adults draw on to learn a second language” (Li, 2019, p. 82). “Language aptitude is a catch-all, umbrella term to refer to cognitive and perceptual abilities that contribute to high achievement in language learning” (Granena, 2020, p. 1).

Foreign language aptitude is a componential construct which constitutes four components proposed by John Carroll (Ellis, 2008). Phonetic coding ability, the first component, is defined by Rysiewicz (2008) as “the ability to segment and identify (code) distinct foreign sounds, to form associations between them and graphemic symbols representing them for later use” (p. 572). In other words, in order to use the target language effectively, it is essential to code the sounds and match these sounds with their orthographic representations. Learners could master an L2/ FL easily through cognitive processes such as assimilation, remembering and coding Elmechta (2016).

Grammatical sensitivity, the second component, refers to “the ability to recognize the grammatical functions of words (or other linguistic entities) within sentences” Robinson (2005, as quoted in Piraud, 2008, p. 99). Learners with high level of grammatical sensitivity, which is based on the awareness of syntactic patterns in sentences, are able to recognize linguistic patterns easily and quickly (Piraud, 2008). Furthermore, according to Carroll (1968) grammatical sensitivity affects the skills of reading and writing, that is, learners have to work out grammatical analysis in order to learn a an L2/FL.

Inductive learning, the third component, enables learners to infer rules of grammar grammatical rules from linguistic samples (Li, 2015). It also develops learners’ independent thinking and helps actively induce the forms and comprehending the meanings of language patterns (Herron & Tomasello, 1992). Additionally, inductive learning and language grammatical sensitivity are key aspects of language have significant correlations with FL/L2 success (Moskovsky et.al, 2015).

Rote learning, the fourth component, refers to the associative working memory (Cowan, 2014). According to Wen and Skehan (2011), the working memory is defined as “a combination of storage and manipulation of information” (p. 4). Ellis & Sinclair (1996) claim that working memory is a fundamental aspect of language aptitude since it helps learners maintain information and make use of this information the stages of learning process.

## 5. Research Design

In order to answer the main research question and sub-questions, a quantitative design, correlational model, which is a type of nonexperimental research in which the researcher measures two or more variables and assesses the statistical relationship, compatible with the objectives of the study, was adopted. Since the objective of the study was to investigate the correlation between learners' language aptitude and English grammar achievement, the Modified Modern Language Aptitude Test (MMLAT) was administered immediately after a background questionnaire at the beginning of the general English course to obtain information regarding the participants. At the end of the course an English grammar achievement test was conducted for the purpose of the study.

## 6. Data collection Procedures

The following presents the procedures adopted throughout the study:

- 1) The study went through different course rounds in order to obtain the target number of the sample to balance the numbers of males and females. It was intended to include a high number of participants in the research in order to be highly reliable. However, the researcher found it very difficult to schedule different classes in the same level.
- 2) Before conducting the study, the researcher had a meeting with every instructor who was going to teach the intermediate level to give them an overview of the study in order to make sure that they

were going to cover all the grammar content that should be delivered to the learners according to the syllabus description of the textbook.

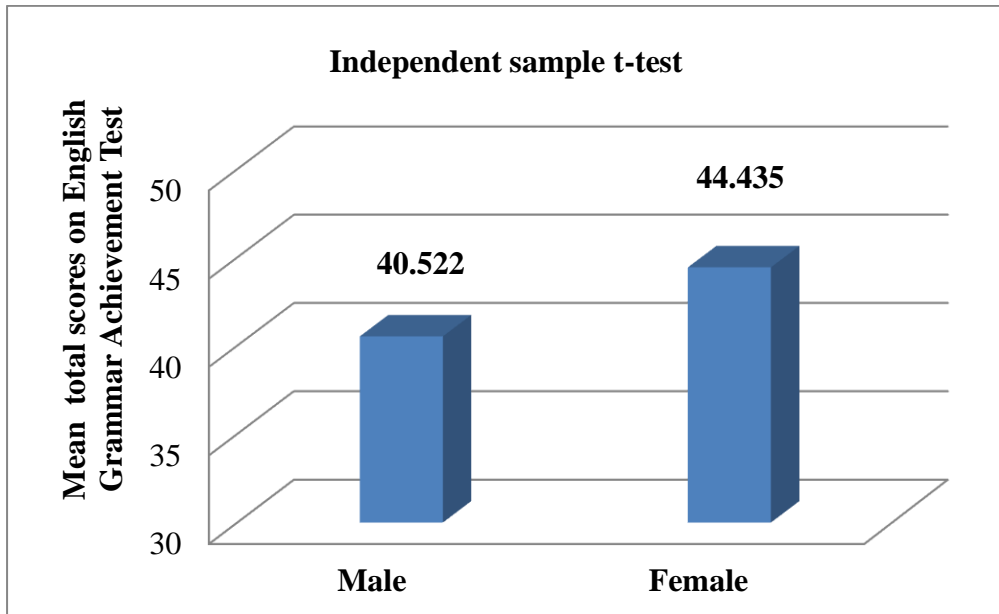
- 3) The research was conducted during one period of normal class at the Center for Foreign Languages and Professional Translation at Cairo University. Because the time of the session was limited, the researcher had to apply the instruments in different sessions during the course.
- 4) The participants had, first, an orientation session in the fourth week of the course and were not informed about the research in order not to influence their performance on the tests. Instead, they were informed that the English grammar achievement is a revision of the grammatical points covered throughout the course and the grades are not related to the course evaluation. This session was applied to every class in every round that included the intermediate level. Regarding the MMLAT, they were informed that this is a new experience of testing English language that detects their weaknesses and strengths and their scores would not be related to the course evaluation.
- 5) The participants were then asked to sit for the following session of the course to fill in the background questionnaire which took from 10 to 15 minutes (see Appendix III).
- 6) In the following session, the researcher herself conducted the MMLAT which lasted for 75 minutes directly without any breaks (see Appendix I). One of the teachers was invited to invigilate the test with the researcher to ensure that all the testing procedures were properly followed.

- 7) The researcher waited until the end of the course to make sure that each instructor had covered all the grammar content to conduct the English grammar achievement test. The researcher scheduled with the instructor and participants the time for the test
- 8) On the English grammar achievement test day, the researcher and instructor distributed the test to the participants which lasted for 75 minutes (see Appendix II).
- 9) All the procedures including the meeting with the instructor, orientation session, conducting the background questionnaire, MMLAT and English grammar achievement test, successively, were applied every time to all the participants included in the study.

## 7. Analysis

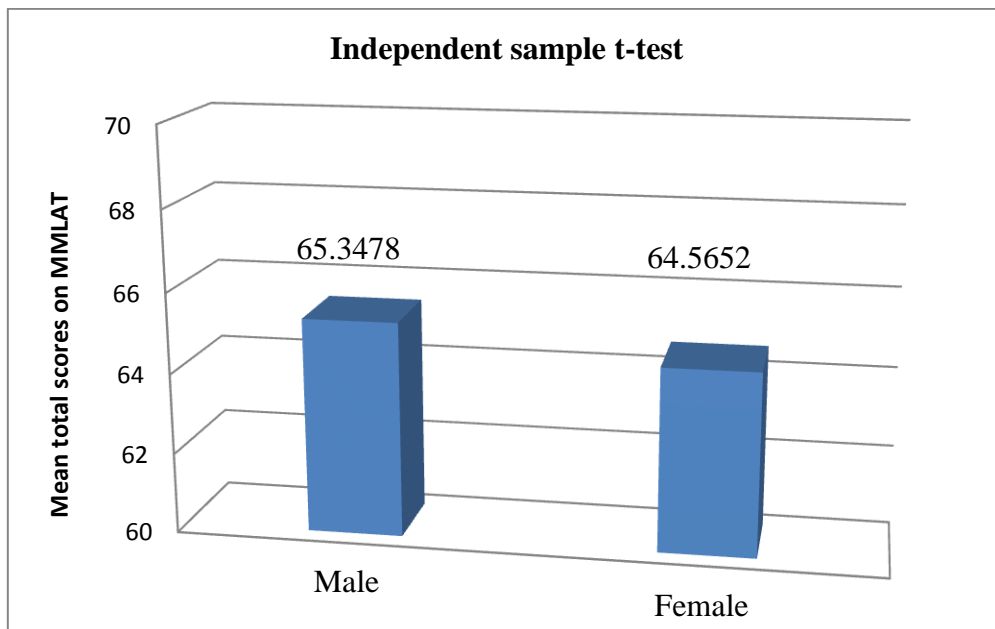
The purpose of the current research is to find out whether there was a significant positive correlation between learners' overall foreign language aptitude and their achievement in English grammar. Furthermore, it examines how each of the MMLAT subtests correlates with the English grammar achievement. The data obtained from the participants' responses on the MMLAT, which was administered at the beginning of the general English course and followed by the English grammar achievement test at the end of the course, were analyzed statistically. This statistical analysis of the data included descriptive and inferential tests. The descriptive tests included the means, standard deviation, and standard error of each of the variables under consideration, whereas inferential tests included the Independent sample t-test to compare between males and females' performance

on the MMLAT and English grammar achievement test. In addition, Pearson Correlation Coefficient Moment ( $r$ ) was conducted to examine the correlation between the foreign language aptitude and English grammar achievement. Since gender plays an essential role in this research and one of the purposes of this study was comparing males and females' performance on the MMLAT and English grammar achievement, the researcher was cautious about collecting the 46 participants based on equal number of gender; 23 males and 23 females in order to obtain reliable and valid results to answer one of the sub questions.

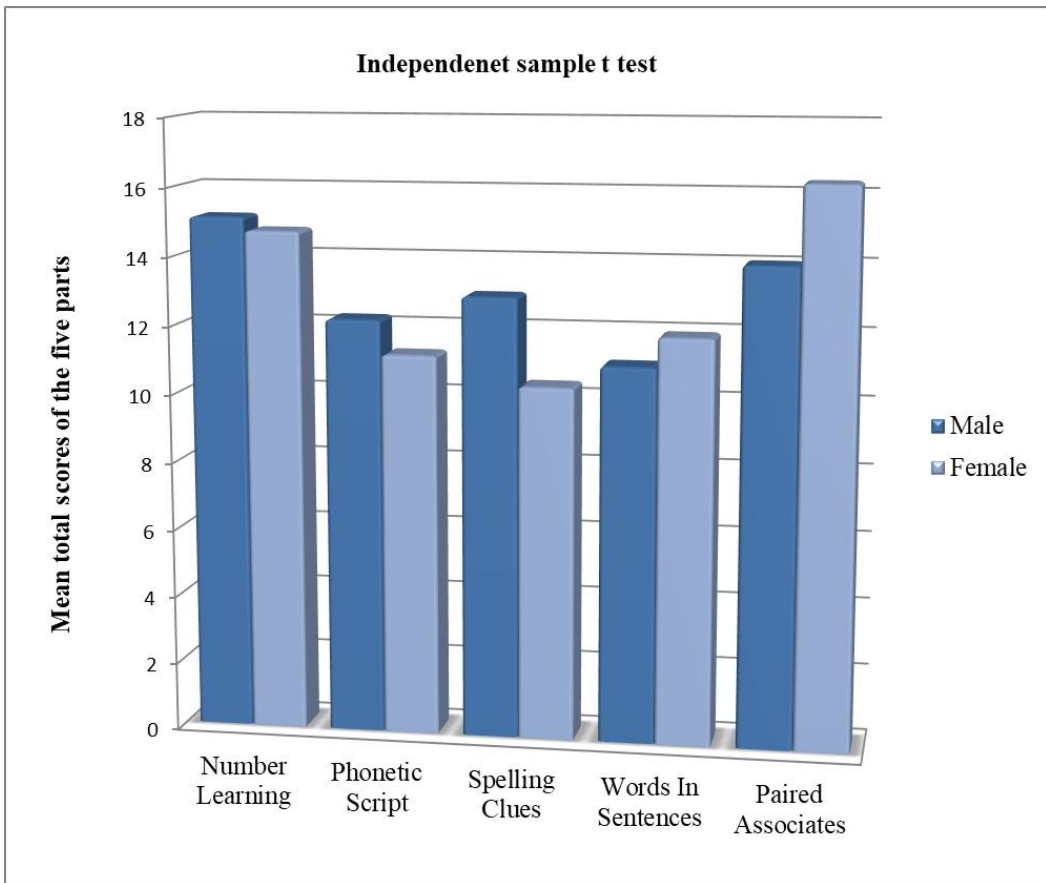


**Figure 1.** Total scores of males and females on the English Grammar Achievement Test

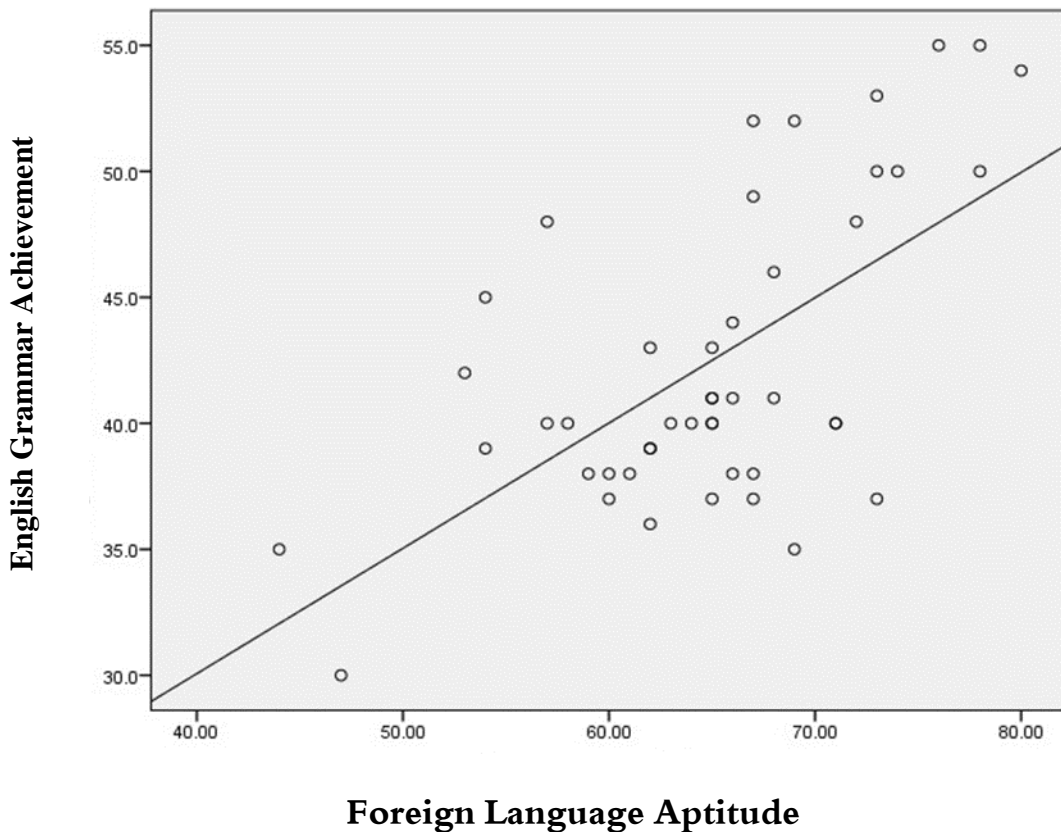




**Figure 2.** Total scores of males and females on the modified modern language aptitude test



**Figure 3.** The difference between males and females on the five parts of the MMLAT



**Figure 4.** The correlation between the MMLAT and English grammar achievement

The scatter plot (Figure 4) gives a visual indication of the positive correlation between the MLAT and English grammar achievement.

Table 1

*The correlations between MMLAT subtests and English grammar achievement*

		Number Learning	Phonetic Script	Spelling Clues	Words In Sentences	Paired Associates
English Grammar Achievement	Pearson Correlation	.361*	.310*	.276	.420**	.568**
	Sig. (2-tailed)	.014	.036	.063	.004	.000
	N	46	46	46	46	46

\*. Correlation is significant at the 0.05 level (2-tailed).

\*\*. Correlation is significant at the 0.01 level (2-tailed).

As shown in Table 1 the correlation between Paired Associates, Part V, and English grammar achievement was the largest and statistically positive among the other four parts ( $r=.568^{**}$ ,  $p=.001$ ). Words In Sentences, Part IV, held a positive correlation with English grammar achievement ( $r=.420^{**}$ ,  $p=.004$ ). As can be seen in Table 6, Number Learning, Part I, was found to be correlated also positively with English grammar achievement ( $r=.361^*$ ,  $p=.014$ ). Phonetic Script, Part II, showed also a positive correlation with English grammar achievement ( $r=.310^*$ ,  $p=.036$ ). Spelling Clues, Part III, correlated positively with English grammar achievement ( $r=.276$ ,  $p=.63$ ).

## 8. Discussion

There may be many plausible explanations for the results of this research. One of them relates to how gender influences performance on the English grammar achievement test and the Modified Modern Aptitude Test and how gender influences performance on the two tests. As mentioned in Chapter Three, in order to measure the English grammar achievement of the participants, an English grammar achievement test comprising 11 questions of 55 items with one mark for each item, based on the grammar content of general English course book, was administered. As noted by the participants' raw scores and descriptive statistics on the English grammar achievement test, there are significant differences among the learners' performance and test scores despite recruiting the same grammar instruction under the same conditions. The test tasks represented different levels of difficulty, some questions were difficult for some learners to answer and they were unable to perform well, therefore, they received low scores. On the other hand, others did not find any difficulty when answering the questions and were significantly faster to respond to the tasks, and therefore, they achieved higher scores. However, all learners found the multiple – choice questions the most appropriate type of questions to their ability, so all of them received high scores. Another interpretation could be the significant influence of gender on the performance of the English grammar achievement, as the female learners outperformed the male learners and they were more successful at learning the grammatical rules ( $p = .028$ ). Indeed, males' achievement on the grammar test was lower than the females'. A possible interpretation is concerning

the overall performance of learners on the MMLAT. As mentioned previously, the MMLAT was used to measure the participants' language aptitude and their abilities in the five aptitude' constituent abilities. The questions of these five components represented different levels of difficulty. Consequently, there were great variations among the learners' scores on the MMLAT and this revealed that there were different cognitive abilities among the learners resulted in their performance, and therefore, in their score variations for example, according to the overall results of MMLAT components, scores received were 47, 59, 67, 70, and 80 out of 90. Looking at the performance and achievement on the individual parts of the MMLAT, it was found that the fifth part, Paired Associates, for instance, was intended to measure rote memorization and associative learning, which appeared to be the easiest part and the learners achieved a maximum score among the other parts; ( $M= 30.3$ ), though this type of question was challenging for them since they have never performed this type of questions. When comparing the difference between males and females' performance, it was found that both achieved a high score in this component with a relative difference between males and females; females received a higher score than males. The first Part, Number learning, which measured the memory and auditory alertness represented the second easiest part among the other parts and learners achieved a maximum score ( $M= 29.87$ ). However, some learners found it difficult to perform well and therefore received low scores. Similar to Part five, Number Learning questions were difficult for learners to answer since they have never performed this type of task. When comparing males and females, it could be found

that both performed well in this component with a little difference between them; males received a higher score than females. The fourth part, Words In Sentences, intended to measure grammatical sensitivity was the most difficult part because the learners might be less able to encode complex syntactic structures accurately. That is, they were not able to recognize the grammatical functions of words, consequently, the results obtained from all learners were the lowest among the other four parts. Both males and females achieved almost the same results with a very little difference between them; females were slightly higher than males. Similar to Words In Sentences, Phonetic Script, Part two, which was intended to identify distinct sounds, to form association between these sounds and the symbols representing them, and to retain these associations, it was found to be the second challenging type of questions for learners because at that level they still have difficulties with associating sounds, pronounced by an English native speaker, and their written symbols. When comparing the performance of males and females in this part, it was found that there was a little difference between them; males performed only slightly better on this part than females. The third part, Spelling Clues, intended to measure English vocabulary knowledge as well as phonetic coding ability, was by far one of the hardest parts to perform by learners since it was a new testing experience for them. It was observed that there was quite considerable variation in the results achieved by males more than females on the questions of this part. Regarding the correlation between language aptitude and English grammar achievement, the statistical analyses showed a moderate correlation between participants' scores on the Modified Modern Language

Aptitude Test and the English grammar achievement test. These results revealed that learners with better scores on the foreign language aptitude measure tended to score higher on the English grammar achievement measure. According to the analysis, despite the total the MMLAT score was significantly correlated with English grammar achievement, the correlations between the individual the MMLAT components and the total English grammar achievement never reached conventional levels of significance; Paired Associates, Part V, was the only language aptitude component that showed a moderate positive correlation with English grammar achievement, while the other four components showed a weak positive correlation with English grammar achievement. In other words, the capacity of language aptitude as a whole to predict English grammar achievement is different from the respective capacities of language aptitude's individual component parts. This can be regarded as evidence that language aptitude is not only a mechanical sum total of separate individual parts, but also operates as an integrated cohesive trait fusing together a number of cognitive features.

## 9. Conclusion

The main objective of the current research was to investigate how language aptitude correlated with English grammar achievement as a whole and how each of the five components of language aptitude, separately, is correlated with English grammar achievement of Egyptian intermediate learners. The purpose of the study was formulated into the following research questions: what is the correlation between intermediate Egyptian EFL learners' language aptitude and their English grammar achievement? This



question was factorized into seven sub questions; the first asked whether there was a correlation between Number Learning and English grammar achievement. The second asked whether there was a correlation between Phonetic Script and English grammar achievement. The third asked whether there was a correlation between Spelling Clues and English grammar achievement. The fourth asked whether a correlation between Words In Sentences and English grammar achievement. The fifth asked there was a correlation between Paired Associates between and English grammar achievement. The sixth asked whether there was a significant difference between males and females' performance on the MMLAT and its subtests. The final sub question asked whether there was a significant difference between males and females' performance on the English grammar achievement test.

The participants of the present study were 46 Egyptians with an age average of 24.8 years of different majors. They were intermediate –level who were studying English as a foreign language in a language center. The researcher produced an English grammar achievement test based on the grammar content of the text book directed to this level, a foreign language aptitude test (MMLAT) modeled on the MLAT and a background questionnaire. A pilot study was conducted to ensure the validity of the instruments. The learners had an orientation session before conducting the MMLAT. Then, they had one session for conducting the MMLAT and the background questionnaire at the beginning of the course followed by a session for the English grammar achievement test at the end of the course. The learners' responses on the MMLAT and English grammar achievement test

were analyzed statistically using inferential and descriptive tests. The descriptive tests included statistical analysis using the IBM SPSS version 22.0 as well as the means, standard deviation, and standard deviations of each of the variables under consideration. The inferential tests included the Product Moment Correlation Coefficient (PPMCC) and independent t-test.

The results of this correlational research provided evidence that L2 aptitude, defined as phonemic coding, inductive language learning, grammatical sensitivity, and rote learning, is only a moderately useful construct in this context. The analysis revealed that there was a moderate positive correlation between foreign language aptitude and English grammar achievement. Nevertheless, the results indicated that language aptitude components were differently correlated with English grammar achievement. Paired Associates, Part V, was the only language aptitude component that showed a moderate positive correlation with English grammar achievement, while the other four components showed a weak positive correlation with English grammar achievement. When the scores of males and females were compared on the English grammar test in order to find whether there was a significant difference between their performance, it was found that females outperformed males; they showed better performance in their responses to the questions of the test. On the contrary, when the scores of males and females were compared on the MMLAT to show the difference between their performance, it was found that males showed a slightly better performance than females. The results showed that there were gender variations on the individual components of the MMLAT. However, there was no statistically significant difference

between the overall performance on the MMLAT between males and females; males showed better performance on Part I, Number learning, Part II, Phonetic Script, and Part III, Spelling Clues, whereas females showed better performance on Part IV, Paired Associates, and showed slightly better performance on Part V, Words In Sentences.

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