



Designing and Validating an English Language Acquisition Scale and Examining its Relationship with English Achievement and Teacher Effectiveness in EFL Classes

 Mostafa Younesi,¹

¹Department of English language teaching, Ferdowsi University, Mashhad, Iran

Corresponding Author: Mostafa Younesi

Phone: 09153525921

e-mail: rainy2013.my@gmail.com

Article citation: Younesi, M. (2020). Designing and validating an English language acquisition scale and examining its relationship with English achievement and teacher effectiveness in EFL classes., *Applied Linguistics Research Journal*, 4(5): 137-153.

Received Date: March 31, 2020

Accepted Date: May 15, 2020

Online Date: September 5, 2020

Publisher: Kare Publishing

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E-ISSN: 2651-2629



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ABSTRACT

This study aimed to design and validate a questionnaire addressing factors which underline the characteristics of acquisition of English language in EFL classrooms and explore the relationship among the underlying factor of the questionnaire, the characteristics of teachers and Grade Four Senior High School (G4SHS) students' achievement in EFL classrooms. To this end the 41-item English Language Acquisition Scale (ELAS) was designed by the researcher and administered to 518 G4SHS students. Also, to find the relationship among the ELAS, its latent variables, factors underlying English teachers' attributes in EFL classes and students' achievement 126 participants were randomly selected out of population to answer the 102-item English Language Teachers' Attribute Scale (ELTAS) and a Schema-Based Cloze Multiple-Choice Items Test (SBCMCIT) respectively. The results showed that the ELAS consists of five factors, that is, Learning booster, contribution, Engagement, Orientation and Criterion. When the ELAS and its underlying factors were correlated with ELTAS and its sub-constructs not only the scales themselves but also their underlying factors showed significant relationships with each other. Also, the ELAS and its underlying factors showed significant relationship with English achievement scores.

Keywords: language acquisition; teacher effectiveness; language achievement.

1. Introduction

The purpose of this study is to explore whether a comprehensive and valid scale could be designed to determine the factors involved in learning of English language in EFL classrooms. Also, this study tries to find out whether there is any relationship between English Language Acquisition scale (ELAS), English achievement. Moreover, this study tries to find whether there is a significant relationship between the ELAS and the factors underlying the English Language Teachers' Attribute Scale (ELTAS). It is necessary for English teachers to be familiar with the factors which are effective in language acquisition specially in EFL classes where students have virtually no access to English speakers to learn the language informally and their learning is usually limited to EFL classes. The factors underlying EFL acquisition are as important as teachers' attributes in helping students acquire the EFL. An English teacher will be successful in his teaching if he tries to reinforce the factors having positive effect on their learning and suppressing the negative ones. This study will,

therefore, help teachers to find these factors by administering the ELAS. They can also examine the interplay between teachers' attributes and factors which are effective in foreign language learning. This study thus tries to determine the leading factors effective in students' English learning by designing a comprehensive scale (ELAS). It also tries to find the probable relationship between the English language Acquisition scale (ELAS) and students' achievement and factors underlying English teachers' attributes in EFL classes to assert the importance of LVs underlying ELAS in EFL classes.

2. Literature review

2.1. Language Acquisition

Krashen in his Monitor Theory distinguished acquisition from learning. He stated that "learned knowledge is completely separate and cannot be converted into acquired knowledge" (Ellis, 2003). According to Krashen (2009) Language acquisition is a subconscious process similar to that by which children acquire their first language. Language learning is also a conscious process, a product of either formal learning situation or self- study program and cannot be converted into acquired knowledge (Kramina, 2000).

During the history of language education many researchers (e.g., Brown, Cazden & Bellugi, 1973; Brown & Hanlon, 1970; Krashen, 2009) tried to determine the necessary conditions to acquire a second language. For example, Krashen (2002) said that meaningful interaction low affective filters, comprehensible input are necessary for language acquisition. Also, some researchers (e.g., Brown, Cazden & Bellugi, 1973; Brown & Hanlon, 1970) believed that error correction and explicit teaching of rules are not relevant to language acquisition. In other words, the extensive use of conscious grammatical rules is not necessary for language acquisition. Krashen (2009) believed in the teaching of conscious grammar extensively only when students have to do extreme "discrete-point" grammar tests, measures that test knowledge of rules and vocabulary in isolation. Gardner (1959) asserted that language aptitude is the major factor in the acquisition of second language skills acquired through instruction. Long (as cited in Yanase, 2004, p.29) stated that "learners acquire new linguistic forms as a result of attending to them in the process of negotiating for meaning in order to address a communication problem". In other words, learning results from an interaction between the learner's mental abilities and the linguistic input

Krashen (2009) indicated that there is a direct relationship between exposure to the language (written and oral) and linguistic acquisition. He suggested that linguistic and sociolinguistic competence can be acquired through comprehensible input. Also, exposure to language should happen in social context and through interaction with other people since discourse competence is acquired through experiencing in a group and strategic competence is acquired through understanding during interaction to achieve an objective.

Learners use the language and practice with it especially in a communicative context. Practical work with language may be quite varied, though. Several studies (e.g., Pica, Holliday, Lewis, & Morgenthaler, 1989; Swain & Lapkin, 1995) indicate that there is a direct relationship between language acquisition and interaction and negotiation of meaning in a communicative context. In addition to interaction, attention to input is necessary for language acquisition. According to Hegelheimer and Chapelle (as cited in González-Lloret, 2003) the most useful interactions help learners comprehend the semantics and syntax of input and improve the comprehensibility of their own linguistic output. Moreover, the output increases the control students have over already acquired structures.

2.2. Teacher Effectiveness

Some language teachers are better than others at providing appropriate and effective learning experiences for the students in their classrooms. The students of these teachers will make faster progress in acquiring a foreign language. According to Rayan (2008) an effective English teacher possesses imagination, innovativeness, interaction, independent thinking and interdependence imagination. He believed that teachers who are imaginative can teach any language skill

interestingly and effectively. He stated that a teacher who promotes interaction in the English class does justice to their profession by empowering learners and helping them develop their communication skills.

There are certain general principles of effective pedagogy such as task-oriented behaviors, use of structuring comments, and clarity of speech have some influences on all types of teaching and learning. In the EFL situations, However, the identification of specific language teaching behaviors that facilitate learning perplexes teachers and administrators. It seems very difficult to predict how much students will learn according to a finite set of teacher competencies. In other words, it is difficult to attribute specific learning gains to concrete learning behaviors. The problem is that the variables controlled by teachers make up only one aspect of the many issues to be considered when assessing students' learning. Also, since the nature of L2 language learning changes frequently it is very difficult to narrow down one methodology or approach that would embody effective L2 teaching in all contexts. Eventually, to affect student achievement and learning teachers should try to maximize the impact of those variables they can control. For example, if the teachers cannot control students' personal lives they can control their own pedagogical decisions and behaviors that effect student learning.

There are many researchers who analyzed the place of explicit instruction in L2 language acquisition. According to Brown (2006), one of the pioneers in this field was Long (1988) who identified four domains affected by instruction. He stated that explicit instruction is effective in 1) SLA processes, i.e., transfer, generalization, elaboration, stabilization, 2) SLA route, i.e., developmental sequences of acquisition for certain forms, 3) SLA rate, i.e., the amount of time needed to acquire a certain form and pass from one stage to another, and 4) level of ultimate SL attainment, i.e., degree of approximation to native-like mastery of the target language. Also, other researchers (Rosa & O'Neill 1999; Lightbown & Spada, 2010) found that formal instruction is beneficial in language acquisition. The results of their researches show that formal instruction by itself cannot scaffold language acquisition but its consequences are effective in this regard.

2.3. Students' Achievement in EFL Classes

To address students' achievement in EFL classes it is important to address factors underlying their achievement. Recent research (e.g., Alrabai 2016) attributes students' achievement in EFL classes to a complex interaction of internal and external factors. Internal factors refer to the learners' demographic characteristics and external factors include sociocultural variables instructional variables, and problems with the educational system. In fact, certain external practices such as assessment in classroom and teachers' behaviors in class and internal factors such as anxiety that teachers instill in their students. It can result in school anxiety-provoking and psychologically threading even for the students who start EFL classes with motivation.

3. Research questions:

The study investigates the following four research questions:

- Q1. How reliable is the ELAS and its underlying factors?
- Q2. What factors underline the ELAS?
- Q3. How do the LVs underlying the ELAS correlate with each other?
- Q4. Do the ELAS and its factors show significant relationships with English achievement?
- Q5. Do the ELAS and its factors show significant relationships with teacher effectiveness and its factors?

4. Materials and Methods

4.1. participants

Five hundred eighteen, 115 (22.3%) female and 403 (77.8%) male, G4SHS students took part

in the study voluntarily. They had registered in Allameh Dehkhoda , Rejai, Mosavi, Ansar , Attar, Emam Ali , Hakim nezami, Khajenasir, Kharazmi, Samen, Sajjad, Mahmoodi and Malek Ashtar boys' schools and Maryam Bagheri, Masome, Motahari, Shekofeha, Talaghani, Valiasre, Beheshti, Dinodanesh, Gharaviyan, Fadak, Fatemenh Zahra, Kosar Zeynabe kobra girls' school in Neyshabour city and educational districts of Zebarkhan and Sarvelayat in 2016-17. Their ages were 16 to 21 (M = 17.81, SD = .50). They spoke Persian (n= 481, 92.9%), Turkish (n=37, 7.1%) as their mother tongue. Their English scores in G3SHS ranged from 5.5 to 20 (M= 16.53. SD= 2.72) and their G3SHS Grade Point Average (GPA) ranged from 10 to 20 (M=16.73, SD= 2.05). Their educational branches were humanities (34.7 %) , sciences (49.6%), mathematics (15.4%) and vocational (2%). Also their school types were public (%90.5), private (%2.1), shahed (%7.1) and gifted (%.2).

Table 3.1. Descriptive statistics of participants in ELAS

	N	Mean	Std. Deviation
Age in years	518	17.81	.507
English score	464	16.53	2.72
G3SHS GPA	462	16.73	2.05
Gender	518	1.78	.41
Branch	518	1.81	.68
School type	518	1.26	.83
Mother Language	518	1.07	.25
Valid N (listwise)	446		

To answer Schema-Based Cloze Multiple-Choice Items Test (SBCMCIT) and to fill the English Language Teachers' Attributes Scale (ELTAS) 126 male participants were randomly selected. They were selected from Emam Ali (n=108) and Malek (n= 18) high schools. Their ages were 17 to 20 (M= 17.74, SD=.55). They spoke Persian (n= 119, 68.4%), Turkish (n= 7, 4%) as their mother tongue. Their G4SHS Grade Point Average (GPA) ranged from 5 to 20 (M= 16.85. SD= 2.59). To know which of the G4SHS students who took the ELAS took the SBCMCIT and filled the questionnaire (ELTAS) as well the researcher matched the codes of the ELAS, SBCMCIT and ELTAS carefully.

Table 3.2. Descriptive statistics of participants in ELTAS and SBCMCIT

	N	Mean	Std. Deviation
Age in years	126	17.74	.55
Gender	126	2.00	.000
Mother language	126	1.24	.92
GPA	126	16.85	2.59
Valid N (listwise)	126		

4.2. Demographic Scale

To collect the required data a Demographic Scale (DS) was designed and employed in this study. For gathering the data related to EFL G4SHS Persian DS containing 9 questions was designed to be used with the ELAS. They dealt with students' age, field of study at school, gender, overall English achievement score in G3SHS, overall scores in G3SHS, location and type of school and language they speak at home.

4.3. English Language Acquisition Scale

A questionnaire addressing the Characteristics of English Acquisition Scale (ELAS) was designed by the researcher of this study . According to the scope and objective of this study a closed- response format was chosen. First some references

(e.g., Brown, Cazden,& Bellugi,1973; Brown, &Hanlon, 1970; Krashen, 2009; Fanselow,1977; Seliger,1977; Snow, & Ferguson, 1977) related to language acquisition and language learning were chosen to design the questionnaire.

English Language Acquisition Scale (ELAS) was developed originally from collected references.

It was attempted to address important aspects that asserted to be necessary for language learning.

A closer analysis, however, revealed that 39 out of the 80 attributes were either redundant or inappropriate and were, therefore, removed from the pool. The effect of informal environment on language learning was, for example, considered inappropriate since this study was done in EFL situations and students have either no access or little access to such an environment.

The questionnaire was translated into Persian language by the researcher by using schema theory that entails the best Persian equivalent for the words to avoid possible misunderstandings on the part of participants. Based on schema theory all the words constituting the items were translated by employing their semantic, syntactic, and discursal relationships with each other and their best Persian equivalents were chosen by employing the same relationships governing the Persian equivalents. There were considerable part-whole correlations between items and the total scale. The building construct of the structured items was scored on a 5 – point Likert scale. The questionnaire called for reading the characteristics and indicating whether the participants learned English according to the specified features on the basis of a five-point Likert scale, i.e., completely agree, agree, no idea, disagree and completely disagree. The scores of 5, 4, 3, 2 and 1, were assigned to these points, respectively. The validity of the questionnaire used in this study for collecting the desired information was ascertained by two English university professors, 3 English language teaching experts, a psychologist (for psychological considerations of designing the questions and their effects on eliciting teachers' attitudes and beliefs on the issue) experienced TEFL teachers. However, after piloting the questionnaire, the necessary modifications were implemented.

The original version of the first questionnaire, English Language Acquisition Scale was piloted on with three distinct sets of classes that were not part of the primary study. Students of these classes were asked to carefully respond to the first version of the questionnaire and to offer any comments or feedback regarding the formatting of the questionnaire, the wording of the instructions and the individual items, and any other changes that they felt would be beneficial in order to ensure its comprehensibility and clarity. After receiving feedback from participating students and analyzing the response patterns, the researcher did frequent revisions and poorly understood items were modified. For example, fluent translation was provided for the discipline – specific jargon that is not accessible to those with little knowledge to the field of second language pedagogy. Also, participants in pilot testing marked positive responses on the same side of scale with little or no reflection. This problem increased the halo effect. To avoid this problem researcher included several negatively worded items in final format to persuade participants to notice to the statements. Also, after pilot testing items were not divided into categories with titles or grouped together as some categories had fewer items than others to keep students from focusing on exactly how many items were devoted to each area and to avoid influencing participants' responses. The same format was employed with a 5-point Likert scale and numbered statements following the same stem.

4.4. Schema-Based Cloze Multiple-Choice Items Test (SBCMCIT)

Also, Schema-Based Cloze Multiple-Choice Items Test (SBCMCIT) designed by Khodadady and Ghergloo (2013) was administered to find out about participants' achievement in EFL classes.

According to Khodadady and Ghergloo (2013) the reliability coefficient of SBCMCIT is .75. Also the internal validity of SBCMCIT was determined by utilizing the item facility (IF) and item discrimination (ID) indices. The mean IF index of the SBCMCIT is .44 and the percentage of ID falls to 32%, i.e., 29 out of 90. According to Boopathiraj and Chellamani (2013) items having discrimination index above .20 are ordinarily regarded satisfactory for use in most tests of academic achievement.

4.5. English Language Teachers' Attributes Scale

The English Language Teachers' Attribute Scale (ELTAS) developed, validated and designed in Persian by Khodadady, Fakhrabadi, and Azar (2012) [KF&A] was used in this study. They developed their 102-item ELTAS dealing with English teachers' attributes. To answer the questionnaire, the

respondents were directed to focus on their teacher who offered English to them at the time the project was conducted and required to read items such as “my English teacher grades tests and assignments fairly and based on some rules” and indicate whether they “completely agree”, “agree”, “have no idea”, “disagree” or “completely disagree” with the content of items.

5. Results

5.1. Kolmogorov-Smirnov Test

To check the normality of data distribution, the Kolmogorov-Smirnov test was employed. This test is used to check whether the distribution deviates from a comparable normal distribution. If the p -value is non-significant ($p > .05$), we can say that the distribution of a sample is not significantly different from a normal distribution, therefore it is normal. If the p -value is significant ($p < .05$) it implies that the distribution is not normal. Table 4.1 presents the results of the Kolmogorov-Smirnov test. As it can be seen, the obtained sig value for all variables is higher than .05. Therefore, it can safely be concluded that the data is normally distributed across all the variables.

Table 5.1. The results of K-S test

	Df	Sig.
ELAS	126	.064
ELTAS	126	.114

5.2. Validity of the ELAS Questionnaire

1: What factors underlie the ELAS?

Table 5.2 presents the descriptive statistics of items comprising the ELAS. As can be seen their mean score ranges from 2.63 (item 6) to 3.99 (Item 25). As it can also be seen, responding to item 6, only 28 % of G4SHS students have agreed that they learn English if English rules are not taught. (see Appendix for the percentage of responses). Seventy-two percent of these students have, however, agreed that they learn English word and sentences better if they listen and read them very much. For these very reasons, items 6 and 25 have the lowest and highest mean scores among the attributes, respectively.

Table 5.2. Descriptive statistics of the items comprising the ELAS

Item	Mean	SD	Skew	Kurd	Item	Mean	SD	Skew	Kurd	Item	mean	SD	Skew	Kurt
1	3.26	1.25	-.37	-.82	16	3.66	1.19	-.69	-.40	31	3.80	1.20	-.86	-15
2	3.32	1.13	-.38	-.64	17	3.36	1.21	-.54	-.54	32	3.38	1.17	-.43	-.57
3	3.62	1.2	-.63	-.49	18	3.69	1.33	-.72	-.59	33	3.69	1.16	-.67	-.4
4	3.81	1.21	-.85	-.25	19	3.51	1.26	-.69	-.5	34	3.16	1.24	-.11	-.96
5	3.59	1.14	-.55	-.43	20	3.32	1.1	-.34	-.37	35	3.65	1.23	-.63	-.54
6	2.63	1.35	.33	-1.08	21	3.48	1.33	-.47	-.93	36	3.51	1.23	-.60	-.55
7	3.62	1.28	-.62	-.67	22	3.57	1.18	.16	4.22	37	3.31	1.27	-.34	-.89
8	3.59	1.34	-.53	-.97	23	3.50	1.18	-.5	-.54	38	3.57	1.21	-.53	-.58
9	3.97	1.16	-.12	.40	24	3.63	1.21	-.74	-.28	39	3.65	1.17	-.74	-.26
10	3.57	1.22	-.64	-.48	25	3.99	1.18	1.02	.032	40	3.63	1.15	-.73	-.17
11	3.73	1.26	-.84	-.27	26	2.94	1.27	.097	-.96	41	3.71	1.30	-.79	-.46
12	3.26	1.92	7.81	125.3	27	3.55	1.20	-.68	-.42					
13	3.42	1.3	-.46	-.85	28	3.42	1.05	-.3	-.31					
14	3.57	1.25	-.06	3.21	29	3.47	1.19	-.4	-.64					
15	3.81	1.18	-.93	.029	30	3.82	1.13	-.93	.14					

To find out whether employing factor analysis to extract latent variable was appropriate the Kaiser –Meyer–Olkin (KMO) measure of Sampling Adequacy was employed. The KMO statistics obtained in this study was .86. Since KMO is more than .5 the sample selected in the study and the

factor analysis employed would probably provide the appropriate common factors. The significant Bartlett’s Test of Sphericity for ELAS questionnaire i.e.<.001 , indicated that the correlation matrix was not an identity matrix (See Table 4.3).

Table 5.3.KMO and Bartlett’s test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.865
Bartlett’s Test of Sphericity	Approx. Chi-Square	5208.257
	Df	820
	Sig.	.000

In order to assure the construct validity of the test, exploratory factor analysis (EFA) with principal component analysis and varimax rotation was run. The assumptions of EFA were met in this study. KMO was .865 and Bartlett’s Test of Sphericity was significant. Scree plot and eigenvalues above 1 were examined to determine the number of factors. Moreover, the highest loading for each item was considered as the appropriate factor for that item. Cross loadings were omitted and loadings less than .30 were removed. Results of the EFA can be seen in Table 4.4.

As Table 4.4 shows, the scale claims to measure eleven factors, namely: 1) Learning Booster (6items), 2) Contribution (6items), 3) Engagement (5items), 4) Facilitation (2 items) 5) Orientation (5 items), 6) Native Language Effect (2 items), 7) Criterion (3items) 8) Personalization (2 items), 9) Lesson-wise (2 items), 10) Mediation (2 items), 11) Implicitness (2 items).

All the factors loaded on two items (Facilitation, Native Language Effect, Personalization Lesson- wise and Mediation) were omitted from the questionnaire due to low validity. Therefore, six subscales were deleted and five subscales were kept for further analysis (CFA).

Table 5.4. Results of EFA

F	Factors																						
	1	2	3	4	5	6	7	8	9	10	11	C	1	2	3	4	5	6	7	8	9	10	11
1										.39		22					.49						
2										.49		23					.32						
3												24								.39			
4		.32										25								.58			
5											.33	26								.45			
6											.53	27								.57			
7		.41										28								.42			
8		.44										29										.35	
9			.56									30				.43							
10		.51										31	.44										
11		.55										32	.45										
12					.38							33	.44										
13					.38							34										.51	
14			.56									35											
15			.72									36	.37										
16		.52										37					.60						
17			.38									38					.62						
18			.30									39	.38									.32	
19												40	.58										
20				.61								41	.54										
21				.44																			

Following EFA, confirmatory factor analysis (CFA) was run to see whether the factor solution obtained in EFA can be confirmed. For this purpose, CFA was run to assess the fit of the model.

Based on the CFA analysis, the association between each sub-factor of the proposed model was analyzed. Figure 4.1 shows the CFA model of the ELAS questionnaire.

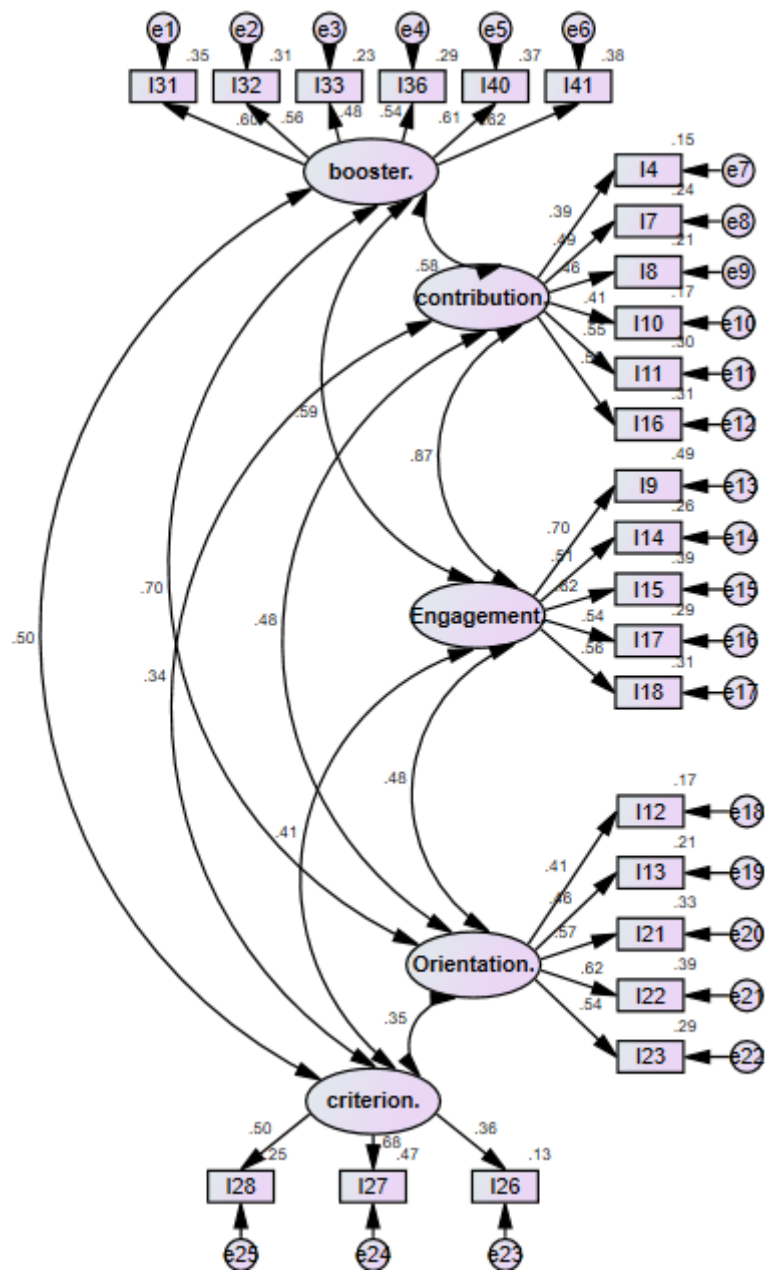


Figure 5.1 CFA model of the ELAS questionnaire

To check the model fit, goodness of fit indices was used. Goodness of fit indices can be seen in Table 4.5. In this study, χ^2/df , GFI, CFI, and RMSEA were used. To have a fit model, χ^2/df should be less than 3, GFI and CFI, should be above .90, and RMSEA should be less than .08.

As Table 5.5 shows, all the goodness of fit indices are within or near the acceptable range. Therefore, the scale enjoyed perfect validity with five subscales.

Table 5.5. *Goodness of fit indices.*

	χ^2	Df	X2/df	GFI	CFI	RMSEA
Acceptable fit			<3	>.90	>.90	<.08
Model	608.110	265	2.295	.914	.863	.050

5.4. Reliability of the Questionnaires

Q2. How reliable is the ELAS and its underlying factors?

Table 5.6 summarizes the information obtained from Cronbach alpha analyses. As can be seen, the utilized questionnaires enjoy acceptable indexes of Cronbach alpha as a whole as well as in their subscales.

Table 5.6. *Results of Cronbach Alpha indexes after validation*

Scale	Subscales	Number of items	Cronbach alpha
ELAS Scale	Learning booster	6	.73
	Contribution	6	.70
	Engagement	5	.75
	Orientation	5	.63
	Criterion	3	.65
	Total ELAS	25	.84
ELTAS Scale	Qualified	28	.93
	Social	13	.94
	Stimulating	16	.92
	Organized	12	.88
	Proficient	11	.84
	Humanistic	9	.90
	Self-Confident	2	.63
	Lenient	3	.66
Total	94	.89	

The Cronbach alpha for Total ELAS with 25 items is (.84), and total ELTAS with 94 items (.89), suggest that the items have relatively good internal consistency.

5.5. Descriptive Statistics.

Table 4.7 presents descriptive statistics of factors of ELAS Scale (learning booster Contribution, Engagement, Orientation, and Criterion) including the mean, standard deviation, maximum and minimum scores. The comparison of these scores appears in the following pages. Because the number of items was different in the various factors of the ELAS questionnaire, an average item score was computed for each factor. Their SD ranged from 1 to 5.

Table 5.7. Descriptive statistics of factors of ELAS scale

	N	Minimum	Maximum	Mean	Mean per item	Std. Deviation
Learning booster	126	9.00	30.00	19.78	3.29	3.11
Contribution	126	8.00	30.00	18.45	3.07	2.89
Engagement	126	6.00	25.00	14.69	2.93	1.58
Orientation	126	5.00	24.00	13.15	2.63	1.98
Criterion	126	3.00	15.00	8.99	2.99	1.01
Total	126	31.00	124.00	73.55	2.94	4.87

The possible range of score for Learning booster and contribution factors with 6 items is between 6 and 30, for the Engagement and Orientation factors with 5 items is between 5 and 25, for the Criterion factor with 3 items is between 3 and 15, and for total ELAS scale with 25 items is between 25 and 125. As it can be seen in table 4.5 learning booster has the highest mean score (3.29) and Orientation has the lowest mean score (2.63). In addition, the table shows that the number of participants were 126.

Table 5.8 presents descriptive statistics of factors of ELTAS (Qualified, Social, stimulating organized, proficient, Humanistic, self-confident and lenient) including the mean, standard deviation, maximum and minimum scores. The comparison of these scores appears in the following pages. Because the number of items was different in the various subscales of the ELAS questionnaire, an average item score was computed for each sub-construct. Also, their SD ranged from 1 to 20.

Table 5.8. Descriptive statistics of factors of ELTAS scale

	N	Minimum	Maximum	Mean	Mean per item	Std. Deviation
Qualified	126	42.00	134.00	94.21	3.36	18.89
Social	126	18.00	60.00	43.13	3.31	10.01
Stimulating	126	19.00	75.00	40.98	2.56	12.65
Organized	126	14.00	60.00	41.25	3.43	9.87
Proficient	126	13.00	49.00	39.21	3.56	8.78
Humanistic	126	9.00	41.00	30.04	3.33	8.21
Self-Confident	126	2.00	10.00	6.98	3.49	1.21
Lenient	126	3.00	15.00	7.80	2.60	2.90
Total	126	121.00	432.00	300.12	3.19	19.87

The possible range of score for Qualified factor with 28 items is between 28 and 140, for the Social factor with 13 items is between 13 and 65, for the Stimulating factor with 16 items is between 16 and 80, for Organized factor with 12 items is between 12 and 60, for the Proficient factor with 11

items is between 11 and 55, for the Humanistic factor with 9 items is between 9 and 45, for the Self-Confident factor with 2 items is between 2 and 10, for the Lenient factor with 3 items is between 3 and 15, and for total ELTAS scale with 94 items is between 94 and 470. As it can be seen in table 4.8 Proficient has the highest mean score (3.56) and Stimulating has the lowest mean score (2.56). In addition, the table shows that the number of participants were 126. Table 4.9 presents descriptive statistics of achievement score.

Table 5.9. Descriptive statistics of achievement score

	N	Minimum	Maximum	Mean	Std. Deviation
achievement score	126	5.00	90.00	54.67	24.01

The possible range of score for achievement score with 90 questions is between 0 and 90. As it can be seen in table 4.9, the minimum score is 5.00 and the maximum score is 90.00. The mean score of achievement score 54.67 with standard deviation of 24.01.

5.6. Correlation among LVs Underlying ELAS.

Q3. How do the LVs underlying the ELAS correlate with each other?

Table 5.10 indicates the results of correlation between Sub-constructs of ELAS. As it can be seen in Table 4.10, among five sub-factors of ELAS, booster has the highest positive and significant correlation ($r=.781$, $p<.01$) and criterion has the lowest positive and significant correlation ($r=.453$, $p<.01$) with Total ELAS. Engagement positively and significantly related to contribution ($r=.560$, $p<.01$). Orientation positively and significantly related to learning booster ($r=.441$, $p<.01$), contribution ($r=.278$, $p<.01$) and engagement ($r=.331$, $p<.01$). Finally, criterion was positively and significantly related to learning booster ($r=.316$, $p<.01$) contribution ($r=.152$, $p<.01$), engagement ($r=.229$, $p<.01$) and criterion ($r=.189$, $p<.01$)

Table 5.10. Results of correlation among factors of ELAS

	1	2	3	4	5	6
1. Learning booster	1.00					
2. Contribution	.402**	1.00				
3. Engagement	.438**	.560**	1.00			
4. Orientation	.441**	.278**	.331**	1.00		
5. Criterion	.316**	.152**	.222**	.189**	1.00	
6. ELAS	.781**	.729**	.761**	.669**	.453**	1.00

**Correlation is significant at the level of 0.01

5.7. Correlation between ELAS and English Achievement

Q4. Do the ELAS and its factors show significant relationships with English achievement?

Table 5.11 indicates the results of correlation between sub-constructs of ELAS.

Table 5.11. Results of correlation between ELAS and English achievement

	Booster	Contribution	Engagement	Orientation	Criterion	ELAS
English Achievement	.821**	.315**	.467**	.321**	.107*	.490**

**Correlation is significant at the level of 0.01

*Correlation is significant at the level of 0.05

As it can be seen in Table 5.9, among five sub-factors of ELAS, booster had the highest positive and significant correlation ($r=.821, p<.01$) and criterion had the lowest positive and significant correlation ($r=.107, p<.05$) with English Achievement.

5.8. |Correlation between ELAS and Teacher Effectiveness.

Q5. Do the ELAS and its factors show significant relationships with teacher effectiveness and its factors?

Table 5.12 indicates the results of correlation between factors of ELAS and factors of ELTAS.

Table 5.12. Results of correlation between factors of ELAS and factors of ELTAS

	Qual.	Soci.	Stimu.	Organ.	Prof.	Hum.	Self.	Len.	ELTAS
1. Booster	.65**	.51**	.33**	.41**	.39**	.29**	.24**	.18*	.45**
2. Contribution	.65**	.42**	.37**	.30**	.25**	.71**	.41**	.23**	.36**
3. Engagement	.54**	.50**	.46**	.38**	.31**	.45**	.29**	.31**	.30**
4. Orientation	.21**	.23**	.20**	.19**	.12*	.65**	.14*	.22**	.21**
5. Criterion	.01	.12*	.15*	.14*	.18**	.03	.19**	.15*	.15*
6. ELAS	.65**	.34**	.28**	.35**	.45**	.29**	.10*	.23**	.35**

**Correlation is significant at the level of 0.01

*Correlation is significant at the level of 0.05

As it can be seen in Table 5.10, among five sub-factors of ELAS, learning booster had the highest positive and significant correlation ($r=.45, p<.01$) and criterion had the lowest correlation positive and significant correlation ($r=.15, p<.05$) with Total ELTAS. Moreover, there was a moderate significant relationship between total ELAS and total ELTAS ($r=.35, p<.01$). Also, there was positive and significant correlation among most of the LVs of the questionnaires. There are, however, some of the LVs which did not correlate to each other significantly. Criterion, for example, did not show significant correlation with qualified ($r=.01, p<.01$) and humanistic sub-factors ($r=.3, p<.01$).

5.9. The Structural Equation Modeling Analysis of EFL Learners' ELAS, ELTAS and Their English Achievement Score

To examine the interrelationship among Learners' ELAS, ELTAS, and their English achievement score a model was proposed and tested in which the ELAS was combined with the ELTAS as predictor of achievement score. Also, in this model the teacher effectiveness on the basis of learners' ELAS was proposed. The purpose was to examine the role that factors underlying language acquisition and teacher effectiveness play in predicting students' achievement score in EFL classes.

To examine the structural relations, the proposed model was tested using the Amos statistical package. According to Schreiber et al., (2006) in this package:

A number of fit indices are examined to evaluate the model fit: the chi-square magnitude which shouldn't be significant, Chi-square/ df ratio which should be lower than 2 or 3, the normed fit index (NFI), the good fit index (GFI), and the comparative fit index (CFI) with the cut value greater than .90, and the Root Mean Square Error of Approximation (RMSEA) of about .06 or .07" (as cited in Ebrahimpur, Motallebzadeh, Zeraatpishe, 2018, p.169).

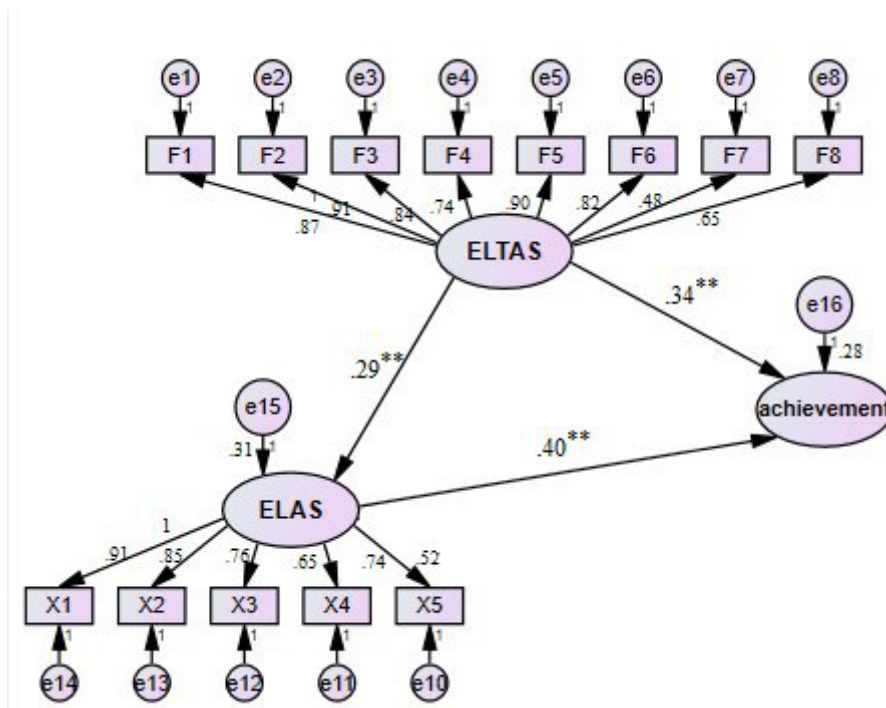


Figure 5.2. The schematic representation of the relationships among EFL Learners’ ELAS, ELTAS, and their English achievement Score.

As results indicated, the chi-square value (350.12), the chi-square/df ratio (116), GFI (.911) and CFI (.954), NFI (.903) and RMSEA (.061), all the fit indices lie within the acceptable fit thresholds. Hence, it can be concluded that the proposed model had an acceptable fit with the empirical data.

Table 5.13. Goodness of fit indices.

	χ^2	Df	χ^2/df	GFI	CFI	NFI	RMSEA
Acceptable fit			<3	>.90	>.90	>.90	<.08
Model	350.12	116	3.01	.911	.954	.903	.061

To check the strengths of the causal relationships among the components, the standardized estimates were examined. As indicated in Figure 4.2, an estimate is displayed on each path. This standardized estimate is the standardized coefficient or beta coefficients (β) resulting from an analysis carried out on independent variables that have been standardized. It explains the predictive power of the independent variable and the effect size. The closer the magnitude to 1.0, the higher the correlation and the greater the predictive power of the variable is.

To assess the model of relationships between variables, SEM was conducted. As indicated in Figure 4.2, both ELAS and ELTAS were positive significant predictors of learners’ English achievement score: ELAS ($\beta= .40, p<0.05$), and ELTAS ($\beta= .34, p<0.05$). Moreover, ELAS positively and significantly was predicted by ELTAS ($\beta= .29, p<0.05$).

6. Discussion and Conclusions

The administration of the ELAS to a representative sample of G4SHS students asserted that five LVs explain the determinative factors effective in student’s English acquisition, i.e., learning booster, Engagement, contribution, Orientation, and criterion. Therefore, ELAS is valid enough to

measure factors necessary for language learning. The results of this study asserted that students' native language can be one of the factors boosting the process of language learning if its usage is restricted as a communicative strategy to help students express something when they cannot express it in the foreign language and to start speaking or as a metacognitive strategy to monitor what is expressed. Also, attention to language, its explicit learning and participation in the process of learning happen when students accept their teachers and like the language itself.

According to the results of the present study students' engagement plays a determinative role in the process of language learning. Students' engagement is necessary to present input in the conversational format through negotiation of meaning. Moreover, students learn a language when they engage in meaningful practice monitoring and input simplification.

It is not possible to learn a foreign language without attention to factors contributing in the process of language acquisition such as affective factors or facilitative strategies in the process of language learning. The results of this study stated that students cannot learn a language when they are anxious or are not at ease. In other words, the results of this study confirmed Krashen's low affective factor hypothesis.

Also learning strategies such as doing a lot of drills and extensive use of conscious grammatical rules contribute in the process of language learning through developing frequency and availability of input and enhancing conscious leaning.

In this study participants had orientation toward explicit language learning, learning through physical activities and how they felt in the process of language learning. In fact, the results of this study stated that cooperation of the explicit and implicit learning system and attention to effective factors are necessary in the process of language learning. Finally, the results of this study asserted that complexity of grammar rules can be supposed as a criterion to determine content of teaching, students' feeling in relation to grammar can be supposed one criterion to correct errors and extent of explanation of grammar can be supposed as one criterion to predict students' learning.

The use of Cronbach alpha and confirmatory factor analysis (CFA) followed by goodness of fit indices indicated that ELAS and its LVs enjoyed not only acceptable levels of reliability but also factorial and empirical validities. The inclusion of a large and homogeneous sample in this study has caused high reliability coefficient (.84) of the ELAS. Among the ELAS subscales, engagement had the highest internal consistency. Also, the result of Cronbach alpha analysis confirmed that ELAS has high reliability (.89). Social LV indicates the highest internal consistency among the ELAS subscales.

The results showed that there is a significant relationship among factors underlying the ELAS at the level of 0.01. Among the LVs, engagement reveals the highest relationship with contribution as a trait indicating that in EFL setting student engagement depends greatly on contributing factors, i.e., students' talent, their emotional relationship with foreign language and their emotional state and their learning strategies. Also, severity and weakness of the contributing factors on language learning in EFL setting depend greatly on teachers' ability to engage their students in the process of language learning. Moreover, there is a noticeable reciprocal relationship between student orientation toward native speakers, their country and learning boosters. In other words, positive orientation causes EFL learners to follow their class eagerly, increases the sense of need to learn a foreign language, encourages them to participate in class and answers questions voluntarily. A self-oriented student devotes enough time to scrutinize the language that he produces. As a result, he learns English better. Also, a learner who likes to learn a language, finds out the necessity of learning a foreign language, is active in the classroom and takes the time to monitor the language to learn it better has a high level of orientation toward the native speakers of that language and their culture.

To find out the relationship between ELAS and English achievement the results of table 4.9 states that English achievement in EFL settings depends greatly on the ELAS and its LVs. Learning boosters had the highest positive and significant correlation ($r=.821, p<.01$). In other words, desire and need to learn a foreign language, participation in classroom activity e.g. answering the question voluntary, correction of students' errors, devotion of enough time to produce language

and simultaneous production and supervision of language had great and positive correlation with students' achievement. Also G4SHS students' achievement correlated significantly with ELAS i.e. $r=0.490$ $p < .01$. To determine content, to predict students' learning and to correct students' errors grammatical criteria had significant but lowest correlation with students' achievement among LVs.

Finally, the results of table 4.10 confirmed that there is a moderate and significant relationship between ELAS and ELTAS ($r=.35$, $p < .01$). Also, there is a positive and significant correlation among most of the LVs of the questionnaires. There are, however, some LVs that their correlations with each other were not significant enough. For example there was not any significant correlation between grammatical criteria, one of the LVs in the ELAS, and qualified factor ($r= 0.1$, $p < .01$). Also there was not significant correlation between grammatical criteria and humanistic factor in ELTAS ($r= 0.3$, $p < .01$). High concentration on reading comprehension skills and vocabulary fading out the importance of grammar in pre – university classes are probably the main reason of the nonsignificant correlation between grammar and these two LVs. Obviously, the most important factor for students to relate emotionally with a language component, e.g., grammar and experience its teaching qualitatively is considering it as a salient and important part in the process of education, syllabus design and teaching it according to specific syllabus by the teachers.

The results of SEM confirmed that ELAS and ELTAS can predict significantly the results of achievement test since they include factors determining students' achievements in EFL settings. For example, students achieve English successfully if they engage in the process of language learning, do not experience negative feeling such as stress and anxiety and experience the process of teaching qualitatively e.g. monitoring their production, learning in an educational environment where they find out the need and desire to learn a language and enough stimulation to participate in classroom activities voluntarily.

Also, teachers' proficiency is another important factor. A proficient teacher follows a clear syllabus in his teaching and testing, tries to teach locally, adopts his teaching with the students' needs and employs technology in his teaching, is familiar with his students' restrictions and tries to teach in a way in which his students achieve the language successfully. Also, the results of SEM confirmed that ELTAS was able to predict ELAS ($\beta= .29$, $p < 0.05$). The ELTAS is a questionnaire designed to measure EFL teachers' attributes. Also, ELAS was designed to find out factors underlie the characteristics of learning English language in EFL classrooms. Obviously, teachers' personalities, their characteristics and strategies they use in EFL classes have great effect on students' language learning. In other words, proficient teachers in EFL situations attend to determinative role of EFL classes and try to prepare class conditions that help students to acquire FL as much as possible. Also, the results of goodness of fit indices in table 5 confirmed the construct validity of the proposed model and the structural relationships among ELAS, ELTAS and achievement test.

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