The Impact of Interaction on Reading Comprehension

Sasan Baleghizadeh*

The study reported in this paper aims to compare the comprehension of two groups of adult EFL Iranian students on a reading passage under two input conditions: *linguistically modified input,* characterized by both lexical and syntactic simplification, and *interactionally modified input* with no linguistic modifications but with opportunities for interaction with the teachers. The results of the study revealed that the students who were allowed to seek clarification by asking questions had comprehended the text better than the students who had read the simplified version of the text. The conclusions drawn from the findings of this study are threefold: they lend empirical support to Long's Interaction Hypothesis, recommend interactional approach to teaching reading, and promote the use of authentic reading materials.

It is a widely accepted fact that in order to learn a language, one must receive the necessary data. In acquiring their first language, children receive a large quantity of L_1 data from their parents and the surrounding environment. In learning a second language, the majority of the learners receive the L_2 data from language classes. This data is provided to them through two main sources of input, i.e. the teacher and the textbook. This paper is intended to review the related literature on input in Second Language Acquisition (SLA) and find out what kind of input is best comprehended by language learners.

Key Words: interaction – Comprehension reading – lexical –

* Shahid Beheshti University.

Bibliography

- Anivan S 1991 Current developments in language testing. Singapore: Seameo Regional Language Center.
- Brown, J D & Hudson T 2002 Criterion-referenced language testing. Cambridge: CUP.
- Bachman L and Palmer A 1996 Language testing in practice. Oxford: OUP.
- Ellis, R 2003 Task-based language learning and teaching. Oxford: OUP.
- Saville N & Hawkey R 2004 The IELTS impact study investigating washback on teaching materials. In L Cheng, Y Watanabe and A Curtis (eds), Washback in language testing. USA: Lawrence Erlbaum Associates.
- The IELTS Handbook 2003. University of Cambridge Local Syndicate.
- IELTS Annual Review 2003/2004

Pedagogical Implications

IELTS preparation courses are being offered in almost every corner of the major cities in Iran indicating that English language testing is undergoing a drastic shift from the so-called recognition tests such as TOEFL to state-of-the-art task-based tests such as IELTS. Contrary to what is usually found in ELT textbooks regarding the difficulty of gaining mastery in productive skills, this study has proved that Iranian IELTS candidates face more difficulty in tackling receptive skills, particularly listening. The reason may be less due to their weakness in comprehension, but more to their shortage of practice in performing tasks based on the data they receive. Ellis (2003) argues that input-processing instruction involving interpretation tasks is more effective than production-based instruction. Hence IELTS preparation programs should emphasize the receptive skills more than before and provide the students with ample opportunities to perform all sorts of real life tasks interpreting the information they are exposed to through reading and/or listening. Details of the weak and strong points of the existing IELTS preparation programs can be investigated through a series of studies which similar to the Impact Study done by Hawkey and Saville (2004) should focus on positive and negative washback of IELTS in Iran.

Table 13 – Correlation coefficients between the overall score of the candidates and each of the four modules

	All candidates N=500	Academic candidates N=362	General T candidates N=138
Overall vs Listening	.8869	.8848	.8927
Overall vs Reading	.7990	.7942	.8192
Overall vs Writing	.8282	.8249	.8490
Overall vs Speaking	.8406	.8573	.8095

Conclusions

Based on the findings of the research, the following conclusions can be drawn:

1. There is no significant difference in the performance of the candidates in the four modules of listening, reading, writing and speaking. Nevertheless, it can be seen that the Iranian IELTS candidates performed best in the speaking module. The other three in order are writing, reading, and listening.
2. Academic candidates and General Training candidates belong to the same population, and thus contrary to what is thought to be the case, Academic candidates do NOT posses a higher command of English compared to General Training candidates.
3. Yielding the highest correlation coefficient, listening seems to be the best predictor of the candidates' general proficiency.

performance of the academic and general training candidates indicating that they belong to the same population.

Hypothesis 3: Correlations

A series of correlations were conducted to trace any similar patterns of variation in the four modules of listening, reading, writing, and speaking. Table 12 shows the coefficients:

Table 12 – Correlation coefficients between different modules

	All candidates N=500	Academic candidates N=362	General T candidates N=138
Listening vs Reading	.6884	.6576	.7650
Listening vs Writing	.6416	.6369	.6689
Listening vs Speaking	.6988	.7230	.6531
Reading vs Writing	.5636	.5624	.6110
Reading vs Speaking	.5486	.5928	.4856
Writing vs Speaking	.6449	.6439	.6575

To investigate which of the four modules is the best predictor of the overall proficiency of the candidates, four related correlation coefficients were calculated which are summarized in Table 13.

candidates, ie academic and general training. Table 11, in two sections, reflects the results:

Table 11 - t-test for the equality of means of Academic and General Training candidates

	Kind	N	Mean	Std. Deviation	Std. Error Mean
overall	1 (acad)	362	5.877	.9829	.0517
	2 (gene)	138	5.786	1.0143	.0863

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
	Equal variances assumed	.002	.966	.916	498	.360	.0908	.0992	-.1041	.2858
	Equal variances not assumed			.903	240.933	.368	.0908	.1006	-.1074	.2890

Since one of the assumptions for a valid t-test is the homogeneity of variance, the Levene test for homogeneity of variance is included. As the F value is not significant (since the obtained p, ie .966 is greater than 0.05), the variances can be assumed to be homogeneous and the Equal Variances line of values for the t-test is used. Since t-value=0.92 and the 2-tailed Sig=0.360 > 0.05, thus the second hypothesis cannot be rejected. In other words, there is no significant difference between the average

Table 9– ANOVA with repeated measures for General Training candidates

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	89.802	3	29.934	10.788	.000
Within Groups	1520.567	548	2.775		
Total	1610.369	551			

Table 10– Scheffe test for General Training candidates

(I) skill	(J) skill	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1	2	.1268	.2005	.940	-.436	.689
	3	-.4710	.2005	.139	-1.033	.091
	4	-.8913(*)	.2005	.000	-1.454	-.329
2	1	-.1268	.2005	.940	-.689	.436
	3	-.5978(*)	.2005	.032	-1.160	-.035
	4	-1.0181(*)	.2005	.000	-1.580	-.456
3	1	.4710	.2005	.139	-.091	1.033
	2	.5978(*)	.2005	.032	.035	1.160
	4	-.4203	.2005	.223	-.983	.142
4	1	.8913(*)	.2005	.000	.329	1.454
	2	1.0181(*)	.2005	.000	.456	1.580
	3	.4203	.2005	.223	-.142	.983

* The mean difference is significant at the .05 level.

Hypothesis 2: Comparing Means through t-test

A two-tailed t-test was conducted to simply investigate any significant differences between the general performance of the two types of

Table 8 – Scheffe test for Academic candidates

(I) skill	(J) skill	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1	2	-.36050(*)	.08430	.000	-.5964	-.1246
	3	-.44613(*)	.08430	.000	-.6821	-.2102
	4	-.87431(*)	.08430	.000	-1.1103	-.6384
2	1	.36050(*)	.08430	.000	.1246	.5964
	3	-.08564	.08430	.794	-.3216	.1503
	4	-.51381(*)	.08430	.000	-.7498	-.2779
3	1	.44613(*)	.08430	.000	.2102	.6821
	2	.08564	.08430	.794	-.1503	.3216
	4	-.42818(*)	.08430	.000	-.6641	-.1922
4	1	.87431(*)	.08430	.000	.6384	1.1103
	2	.51381(*)	.08430	.000	.2779	.7498
	3	.42818(*)	.08430	.000	.1922	.6641

* The mean difference is significant at the .05 level.

As it can be seen, among all mean differences, only the mean difference between reading and writing is not significant in academic candidates.

In General Training candidates, the post hoc test shows that mean differences between speaking and the other three modules are significant. Tables 9 and 10 present the results.

Table 6 – ANOVA with repeated measures for all candidates as a whole

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	181.828	4	45.457	18.136	.000
Within Groups	5000.294	1995	2.506		
Total	5182.122	1999			

The obtained F-value of 18.136 and the significant level of .000 (< .05) indicate that there is a significant difference between the means of the candidates in the four modules, meaning that they have different levels of ability in the four skills.

For a more thorough analysis, two oneway ANOVAs with their related post hoc tests were conducted on the two types of candidates, ie Academic and General Training. Table 7 and 8 contain the results for Academic candidates.

Table 7 – ANOVA with repeated measures for Academic candidates

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	140.101	3	46.700	36.305	.000
Within Groups	1857.468	1444	1.286		
Total	1997.569	1447			

candidates as a whole and the two groups of candidates:

Table 3 – The statistics of all candidates as a whole

Module	Mean	Std Dev	Min	Max	N
Listening	5.35	1.17	1.0	9.0	500
Reading	5.64	1.03	1.0	8.5	500
Writing	5.87	1.16	2.0	9.0	500
Speaking	6.29	1.21	.0	9.0	500

Table 4 - The statistics of Academic candidates

Module	Mean	Std Dev	Min	Max	N
Listening	5.40	1.18	1.0	9.0	362
Reading	5.76	.99	1.0	8.5	362
Writing	5.84	1.18	2.0	8.0	362
Speaking	6.27	1.18	.0	8.0	362

Table 5 - The statistics of General Training candidates

Module	Mean	Std Dev	Min	Max	N
Listening	5.24	1.16	2.0	9.0	138
Reading	5.33	1.06	3.0	8.5	138
Writing	5.93	1.10	3.0	9.0	138
Speaking	6.35	1.28	.0	9.0	138

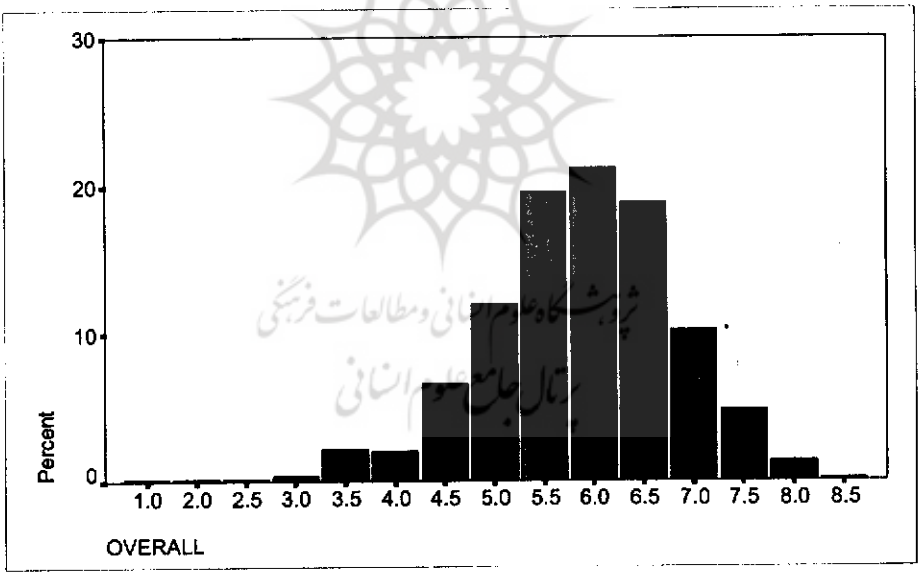
Hypothesis 1: Comparing Means through ANOVA

In order to find out whether Iranian IELTS candidates do or do not show a better performance in any of the skills (modules), an ANOVA with repeated measures was conducted. Table 6 presents the results of the oneway ANOVA for all candidates as a whole.

Table 2 - The frequency of obtained band scores

Band score	Frequency	Percentage	Cum frequency
1.0	1	.2	.2
2.0	1	.2	.4
2.5	1	.2	.6
3.0	2	.4	1.0
3.5	11	2.2	3.2
4.0	10	2.0	5.2
4.5	33	6.6	11.8
5.0	60	12.0	23.8
5.5	98	19.6	43.4
6.0	106	21.2	64.6
6.5	94	18.8	83.4
7.0	51	10.2	93.6
7.5	24	4.8	98.4
8.0	7	1.4	99.8
8.5	1	.2	100.0
Total	500	100.0	100.0

Chart 2 - The percentage of the obtained band scores



Tables 3 to 5 demonstrate the descriptive statistics obtained from the

Summary of the Data

Table 1 illustrates a summary of the obtained data from two kinds of candidates:

Table 1- The frequency and the percentage of candidates

Kind of candidate	Frequency	Percent	Cum frequency
Academic	362	72.4	72.4
General Training	138	27.6	100.0
total	500	100.0	100.0

Pie-chart 1 better illustrates the data given in Table 1.

Pie-chart 1- The percentage of two types of candidates

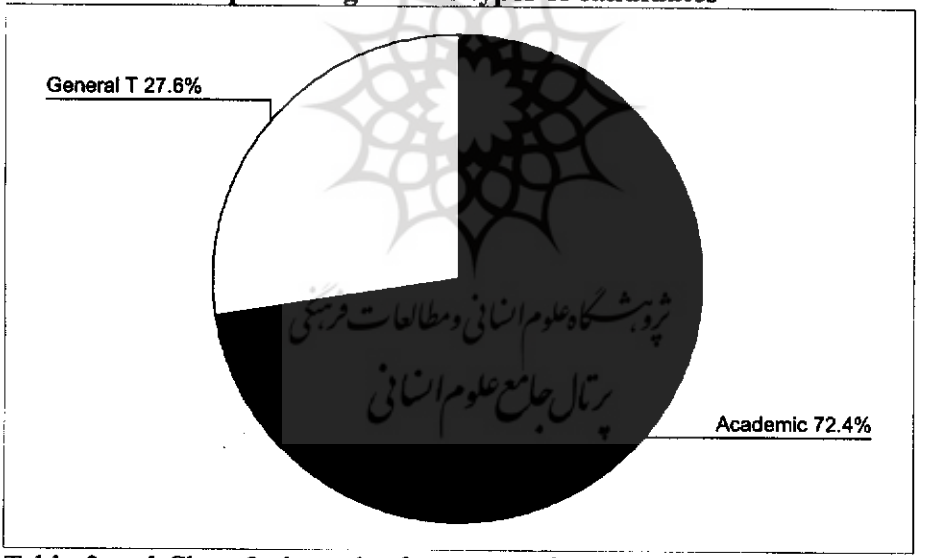


Table 2 and Chart 2 show the frequency of each band score obtained by the candidates:

by 500 Iranian IELTS candidates who have sat for the exam in 2004. The candidates were both male and female and all above the age of 16. From among the 500 candidates, 362 were Academic and 138 were General Training.

Design: The present study, being descriptive in nature, pursued three objectives:

1. Based on an *ex post facto* approach, it aimed at locating possible significant differences in the performance of IELTS candidates in the four different modules. With this objective, the dependent variable was the candidates' communicative performance reflected in the scores obtained in each of the four modules. The independent variable, then, was the skill or module via which the candidates are expected to show their communicative competence. As a result, it entailed a one-factor repeated measures ANOVA.
2. Furthermore, it sought the differences in the overall performance of Academic and General Training candidates. A simple two-tailed independent t-test was employed to trace any significant differences.
3. With a correlational design, it also attempted to determine the highest predictive power in the four language modules.

Data Analysis: To verify the hypotheses of this study, a series of analyses

Were conducted which can be presented as follows: