A comparative study of L2 readers’ performances on general purpose and academic purpose texts
R. Sahragard¹, A. Rahimi², M. Shams

Abstract

The present study sought to investigate the role of L2 proficiency in reading general purpose (GP) and academic purpose (AP) texts, and the predictability of reading performance on AP texts from performance on GP texts. It is hypothesized that performance on GP is predictive of performance on AP. To this end, two groups of medical students, each consisting of 35 students took part in the study. They were screened and divided into two groups of low and high proficiency students. Tests of both GP and AP reading comprehension were administered to them simultaneously.

The results of the analysis of data revealed that the level of proficiency is influential in both GP and AP reading tasks, and the level of predictability is higher for the high proficiency group than for low proficiency group. The findings lend support to the threshold hypothesis, i.e., a minimal required level of L2 proficiency prior to reading task is needed for the students to be successful in reading their academic English texts.

Key words: L2 proficiency, general purpose, academic purpose

Introduction

The ability to read academic texts efficiently and effectively particularly at tertiary level is assumed as a major need for the students. Some of the students who are admitted to colleges and universities are at times faced with difficulties reading their texts due to several factors including low general proficiency or incompatibility of English teaching/learning at high school and universities (Kramsch, 1998). Therefore, the ability to read and understand academic texts in English is an essential skill that students should master. Unfortunately, achieving success in this skill is not a simple task as it involves, mastering sub-skills such as “discerning main ideas,

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understanding sequence, noticing specific details, making inferences, making comparisons, and making predictions” (Richards & Schmidt, 2002, p. 444).

According to Alderson (2000) reading involves the process of reading and the result of that process which is the product of the reading process (comprehension) in which the reader interacts with the text. During the process the reader looks at the print, tries to decipher the symbols, decides on the meaning of the words, etc.

Traditionally reading materials were prepared on the basis of target situation analysis and the corresponding linguistic description and little attention was paid to learners’ characteristics, skills and strategies. This approach is usually referred to as product-oriented (Nunan, 1993). The criticism of the product oriented approach is on the grounds that it emphasises the linguistic competence at the expense of communicative competence. This shortcoming gave rise to the emergence of process oriented approach which focuses on the mental processes involved in doing the task and approximating them in teaching procedures (Alderson & Urquhart, 1985; Widdowson, 1983; Hutchinson & Waters, 1987). The implication has been giving credence to linguistic description, needs analysis, learning theories and learners’ factors. The same trend was followed in English for Academic Purposes (EAP) material development. The challenges facing the practitioners are lack of familiarity with such cognitive and affective factors and their practicality in classroom settings. Doing exercises such as gradual approximation, information transfer and text diagramming have been recommended to cognitively facilitate imparting the skills and strategies in the learners (Widdowson, 1978).

EAP as a sub branch of English for Specific Purposes (ESP) is basically founded on the general assumption that academic texts in all disciplines have common features which are somehow different from general purpose texts and that they could
be more focally taught and learned (Johnson & Johnson, 1998). For example the frequency of present tense and passive forms is higher in academic texts than in general purpose texts. EAP is less subject specific than ESP and as Robinson (1991) has duly noted, extensive reading in general academic materials should be emphasised. In contrast some other practitioners maintain that ESP is more rewarding and emphasise on genre analysis approach to material preparation and teaching (Swales, 1985). Broadly speaking and in terms of content, two approaches to teaching/learning academic texts can hence be distinguished; one emphasizing the common core (Clapham, 2001) and the other emphasising subject specific materials (Hyland, 2002).

Placing emphasis on language usage rather than use (to use Widdowson’s terms) was the outcome of product approaches. In EAP it is believed that academic texts have shared features and readers in different fields have shared knowledge which is essential to effective communication, so familiarity with the discipline's specific conventions, terminology and disciplinary behaviours can help authenticate the texts (Widdowson, 1983). To fulfil such a need theorists and practitioners have tried to design courses which can help overcome the barriers to international and intercultural communication in the shared specific subjects, or to create a “global language” (Pakir, 1999, p. 81). Thus the role of non-native teachers and cultures becomes critical in this arena (Kramsch, 1998).

An area where the distinction between common core and specific language issues becomes very much clear is in language testing. The analysis of different academic language use is the basis of EAP testing. Such tests like IELTS academic are in contrast with general purpose tests including IELTS general or the TOEFL whose objectives are not specific and are broadly determined. The distinctive features
of EAP tests such as IELTS academic are academic content, authenticity of the tasks, and the interaction between the testee’s general proficiency and his academic background knowledge (Fulcher, 1999).

An important issue in reading is the role of general language proficiency in general purpose and academic purpose texts. Briefly, the bulk of findings have revealed the critical role of proficiency in grasping and interpreting the meaning and the purpose of the texts (Tindale, 2003). Low proficiency makes the students over rely on text processing at word and sentence levels (Bottom-up processing) whereas higher proficiency enables the readers to use their background content knowledge, and reading strategies more effectively (Alderson & Urquhart1985, Devine 1987). Low proficiency hinders the reading speed and leads to short circuit which limits the transfer of L1 skills and strategies to L2 reading tasks (Cohen, 1979). The more detailed account of the role of proficiency in reading activities is provided in the following chapter.

Regarding the issues went above, this study aims to look at the impact of the performance of some Iranian learners in general purpose English on that of the specific purpose.

**Objectives of the study**

This study seeks to determine how far an L2 reader’s performance on general purpose (GP) texts are predictive of his/her performance on academic purpose (AP) texts. The investigation aims to find out to what extent this prediction is possible for both high proficiency and low proficiency groups of students who have not passed any EAP courses yet. More specifically, the study attempts to find answers to the following questions:
1. Is there a significant and positive relationship between the performance of Iranian learners in general purpose English (GP) and their performance in academic purpose English (AP)?

2. How different are low and high achievers in their performance on GP and AP texts?

3. Can performance in general purpose test significantly predict performance in academic tests?

The hypothesis is that performance on general purpose reading task is predictive of performance on academic texts. A regression analysis between these two performances will show if the hypothesis can be confirmed or not.

**Method**

The scheme of the proposed design is as follows:

<table>
<thead>
<tr>
<th>Level of proficiency</th>
<th>GP</th>
<th>AP</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOW</td>
<td>P1</td>
<td>P2</td>
</tr>
<tr>
<td>HIGH</td>
<td>P3</td>
<td>P4</td>
</tr>
</tbody>
</table>

P1, P2, P3, P4 are representatives of subjects’ scores on GP and AP reading texts.

**Participants**

The design of the study required two groups of participants, each of which consisting of thirty five students majoring in medicine and who were in their first year of education. The selection procedure in this study is convenient sampling. This is because going through randomisation procedures was not practical and the researcher had to select the participants who were available and happy to cooperate.

The students in both groups had not passed any English for Academic Purpose courses and were studying at Kazeroon Azad university in Iran. They were assigned
as low proficiency and high proficiency groups of mixed students based on their performances on a placement test administered to them.

It seems essential to give a brief background of the status of the English language in Iran and university students’ command of English. Generally the language of instruction in Iran is not English except for Medical students who are required to read their texts in anatomy, histology, biochemistry and the like in English. It is worth mentioning that the sharpest students go for medicine in Iran and admission is extremely competitive. On average one out of about two thousand can get admission to the university to study medicine. English is taught for three years at secondary schools. The goal of the curriculum has been defined to enable students in their reading comprehension in English. The secondary school students attend English classes for two hours per week.

The university English textbooks are not translated into the native language (Persian). The students should become familiar with the skills and strategies associated with medical texts and topics. Those students who are to pursue their studies to become consultants should develop a good command of English because the entrance exams are all basically in English.

**Instrumentation**

A placement test and four reading texts in the form of passages constitute the instrument in this study; the placement test consisted of multiple choice items on vocabulary, grammar and reading comprehension. The reading passages were two GP and two AP passages in the form of a reading comprehension set of passages. The GP texts were selected from TOEFL standard sources and the AP texts were selected from IELTS Academic exams samples (see the Appendix). Each reading passage was followed by ten reading comprehension questions. Ten points, as described in the appendix was given to each passage, therefore, there were 20 points for GP and 20 points for AP and in total 40 points for both. The allotted time for doing the tasks of reading and answering the questions of the four passages was 80 minutes. Two tests of reliability were run on the data to determine the reliability of the placement test and the passages. The resulting index was 0.89 for the placement test and 0.82 for the passages respectively. The indices show that the instruments are reasonably reliable.

The validity of the placement test and the passages were established through seeking two university language teachers who are experienced in English language
testing. They unanimously approved both content and face validity of the instruments. The construct validity of both sets of tests was checked using factor analysis. The resulting analysis for the placement test had loadings on three components. This suggests that the three parts of the test have higher correlation on three factors. It can be claimed with reasonable confidence that these three components are, in fact, the three parts of the test, that is; vocabulary, grammar and reading comprehension.

The same procedure was followed for the reading comprehension test. The resulting analysis extracted one component, suggesting reading comprehension.

**Procedures**

The placement test was first administered to assign the participants into two groups of high and low proficiency. Those scored within the range of 32-40% were considered as low and those above 65% as high. There were 17 girls (out of 35) in low proficiency group and 21 in high proficiency group. The students had been taught general English only during the four years of education at high schools.

The four passages in the form of a battery of reading comprehension tests were administered to both high and low proficiency groups simultaneously and students were not aware of the kind of test they were going to take. Both groups took the tests. To remove practice effect, the students were not told beforehand what kinds of materials are included in the test. Clear instruction about how to do the test was provided.

In order to answer the questions posed in chapter 1, the relevant statistical analysis were conducted on the data. The procedures that followed were descriptive statistics of frequencies, Pearson correlation, t-test, and regression analysis.

**Analysis and Discussion**

A descriptive statistics revealed that the mean in AP scores is higher than the mean in GP scores for both proficiency groups. In comparison, higher proficiency group’s performance on both AP and GP texts were better than lower proficiency counterparts. The figures also showed that the standard deviation in AP was lower than the standard deviation in GP texts for both groups of students. Lower standard deviation means higher level of homogeneity. Thus, greater homogeneity was observed in AP reading performance than in GP reading one, with the level of
homogeneity for higher proficiency group greater than that for lower proficiency group.

In order to answer the first question of the study a correlational analysis was run on the data to find out the extent of the relationship. The data in this study are of the interval kind, so the appropriate method of the analysis is using Pearson's product moment correlation coefficient formula. This was carried out on both the low group and the high group, the results of which appear in Tables 1 and 2 below.

Table 1 Correlation of GP and AP for Low

<table>
<thead>
<tr>
<th>Correlations</th>
<th>GP</th>
<th>AP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>1</td>
<td>.447**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.</td>
<td>.007</td>
</tr>
<tr>
<td>N</td>
<td>35</td>
<td>35</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level

a. GROUP = low

Table 2 Correlation of GP and AP for High

<table>
<thead>
<tr>
<th>Correlations</th>
<th>GP</th>
<th>AP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>1</td>
<td>.513**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.</td>
<td>.002</td>
</tr>
<tr>
<td>N</td>
<td>35</td>
<td>35</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level

a. GROUP = high

According to Table 1 and 2 the correlations are positive and significant for both the low and the high group (R= 0.447, P-value= 0.007<0.05) for the low proficiency group and the same was true for higher proficiency one (R=0.513, P-value=0.002<0.05). This suggests that there is a moderate relation between participants' performance in their general proficiency and their academic performance. It is clear that the R for the high group is higher.

The extent of overlap between the two variables is usually established through squaring the obtained coefficient index (R). This is called coefficient of determination. The coefficient of determination for the low group is 0.20. This suggests that there is a 20% overlap between the two variables here for the low group between their performance on GP and AP tests. The coefficient of determination for the high group is 0.26, however. This suggests that there is a 26% overlap between the two variables here for the high group. It is clear that the relationship between the two variables (GP and AP) for the high group is stronger. This stronger relationship could be attributed to the high group's underlying knowledge of the English language, i.e., their English language proficiency.
**Between and within group comparison**

To find answers to the second question of the study, two types of analysis are carried out on the data here. One is Independent-samples t-test to look at the differences between the two groups in terms of their performance on GP and AP test. The other is paired-sample t-test which compares the two performances of the group together.

Independent-samples t-test was done to compare the two groups. The results of this analysis appear in Table 3 below.

**Table 3 Independent-Samples test for the low and high group on GP and AP**

<table>
<thead>
<tr>
<th></th>
<th>Levene’s Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F     Sig.</td>
<td>t</td>
</tr>
<tr>
<td><strong>GP</strong></td>
<td>Equal variances assumed</td>
<td>1.950</td>
</tr>
<tr>
<td></td>
<td>Equal variances not assumed</td>
<td></td>
</tr>
<tr>
<td><strong>AP</strong></td>
<td>Equal variances assumed</td>
<td>.451</td>
</tr>
<tr>
<td></td>
<td>Equal variances not assumed</td>
<td></td>
</tr>
</tbody>
</table>

According to Table 3, there was a significant difference between the two groups’ performances in both GP and AP reading texts; for GP (t= -10.707, df=68, P-value=0.000<0.05) and for AP (t= -11.502, df=68, P-value= 0.000<0.05). But the gap between the two groups was wider in the case of AP than in GP. This indicates that the high group performs significantly better than the low group.

Paired t-test was used to compare performance on GP and AP within each group of proficiency. Table 4 shows that there are significant differences between performances on GP and AP for both groups. Both groups have performed significantly better on AP than on GP reading texts. For low proficiency group (t=-8.146, df=34, P-value=0.000<0.05) and for high proficiency group (t=-9.968, df=34, p-value= 0.000<0.05).

**Table 4 Paired samples T-test**

<table>
<thead>
<tr>
<th></th>
<th>T</th>
<th>Df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
</table>

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Regression Analysis

In statistical analysis, prediction is based on regression; therefore, linear regression analysis was run on the data to find the answer to the third question. The results appear in tables 5 and 6 below.

Table 5 Prediction of AP from GP for the low group

<table>
<thead>
<tr>
<th>Coefficientsa,b</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>Unstandardized Coefficients</td>
<td>Standardized Coefficients</td>
<td>t</td>
<td>Sig.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>8.638</td>
<td>1.691</td>
<td>.510</td>
<td>.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GP</td>
<td>.423</td>
<td>.147</td>
<td>.470</td>
<td>2.872</td>
<td>.007</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: AP
b. GROUP = low

Table 6 Prediction of AP from GP for the high group

<table>
<thead>
<tr>
<th>Coefficientsa,b</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>Unstandardized Coefficients</td>
<td>Standardized Coefficients</td>
<td>t</td>
<td>Sig.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>9.800</td>
<td>2.122</td>
<td>.513</td>
<td>.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GP</td>
<td>.486</td>
<td>.141</td>
<td>.470</td>
<td>3.433</td>
<td>.002</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: AP
b. GROUP = high

The analysis is significant for both groups; the Beta for the low group is .447 (Sig.=.007) and this for the high group is .513 (Sig.= .002). The Beta for the low group suggests that nearly 45% of the variation in AP can be accounted for by GP. The Beta for the high group suggests that 51% of the variation is accounted for by GP. As can be seen the Beta for the high group is higher than the low group. Since Beta value is greater for higher proficient subjects, it can be concluded that the level of the predictability of AP reading performance from GP reading performance is higher for higher proficiency group than for lower proficiency group.

Discussion

As revealed in the results, higher proficiency group outperformed the lower proficiency counterparts on both AP and GP reading tasks. One implication may be...
that commonality rather than specificity should be emphasized in teaching/learning English although academic texts coming from different disciplines are different in terms of rhetorical and discoursal features as well as vocabulary and grammar. Common core language underlying academic materials should be of concern to practitioners in both teaching and testing, as practiced in IELTS.

The results also showed that both higher and lower proficiency groups performed better on AP than on GP reading texts. Also, lower variance or greater homogeneity was found in AP for both groups. These findings may be in line with the view that academic corpus has its own peculiar culture so homogeneity among students is expected (Widdowson, 1979; Joag-Dev, 1984). The interaction between subject-specific background knowledge and knowledge of English is also a distinctive feature of EAP reading tasks. Douglas (2000, p.2) has noted that “background knowledge is a necessary, integral part of the concept of specific purpose language ability”. Lower proficiency group’s better performance on AP texts may lend support to compensatory effect of academic background knowledge as shown in some studies such as Douglas (2000).

There is also a bigger gap between the two groups of proficiency in the present study in AP task than in GP. Since the two groups have been at the same level of academic education, again language proficiency may be taken to be responsible for the gap, i.e., higher proficient group outperform the lower proficient one. Higher competence allows and helps the more proficient readers to use contextual constraints, textual cues such as cohesive devices more efficiently (Cooper, 1984). Psycholinguistic studies are also in support of this view in terms of parsing and word recognition (Kintsch, 1988; Perfetti & McCutcheon, 1987).

Lower proficiency may hinder the activation of the possessed schemata, i.e., the student possesses the required background content knowledge, but due to lower proficiency the text becomes opaque to him because he cannot use the cues to make the meaning (Carrell & Wallace, 1983). So the availability of schemata doesn’t presuppose its activation. Such a failure makes the students linguistically text bound and they process the text just at word or sentence levels (Bottom-up processing) and no attention is paid to higher level organization of the texts. This fact again lends support to threshold hypothesis, i.e., the need for a ceiling of general knowledge of the language which allows for higher order processing of the text (Alderson, 1984).
Regarding the predictability of performance on AP texts from performance on GP texts, the statistical analysis showed that there is a greater possibility of the prediction for higher proficiency group. The superiority of this group’s performance on both GP and AP reading texts and the higher level of predictability together are in support of the critical role of proficiency in reading activities.

Bearing in mind the above-said results and findings, it seems the major difficulties facing Iranian students at tertiary level of education are rooted in the lack of optimum proficiency required for successful reading of the texts at university level (Farhady, et al. 1994). The positive correlation between general proficiency and performance on AP reading texts seems crystal clear (Bayliss & Raymond, 2004; Feast, 2002). Proficiency could be assumed as predictive of university candidates’ performance on prospective academic courses, and if so, selection procedures in National Entrance Exam should be revised so that more proficient high school graduates are admitted to the universities in Iran. English teaching methodology at universities in Iran should also be revolutionized and efforts should be made to make student autonomous and independent readers.

**Conclusion and Implications**

This study revealed the significance of proficiency in reading both GP and AP texts. In other words, the existence of a linear correlation between proficiency level and reading performance was revealed. General knowledge of language appeared to be a relatively powerful indicator of reading the texts. However, the significant role of disciplinary knowledge should not be overlooked. Some studies have shown that the students not always perform better in their subject areas (Koh, 1985; Alderson & Urquhart, 1985), whereas some others are supportive of the significance of discipline related knowledge particularly in EAP reading activities (Clapham, 1996; Ridgway 1997). Clapham (2001) argued that the more specific the reading passage is, the more powerful the effect background knowledge will have on reading comprehension.

EAP reading is a multifaceted activity and is not just a matter of interaction between English knowledge and subject knowledge. Affective factors such as motivation, attitude, self confidence and the student’s purposes are influential as well (Bernhardt & Kamil, 1995; Pichette, Segalowitz & Conors, 2003). L1 reading skills also play some part in reading AP texts.
One implication from this study may be that general proficiency can predict academic reading ability better than discipline related knowledge. Therefore, successful EAP reading becomes possible with little disciplinary knowledge if the reader is sufficiently proficient. The pedagogic implication of this finding is that in the case of lower proficiency students, attempts should be made to improve their proficiency; thereby the threshold needed becomes stronger for successful EAP reading. Since university classes begin in September in Iran, the authorities can prepare intensive English teaching programs for the admitted students whose proficiency is low. These courses should focus on familiarizing students with text processing strategies which are believed to be valuable in reading activities (Farrell 2001). Metacognitive awareness of these strategies is found effective in some studies (Schoonen, Hulstijn & Bossers, 1998).

Content-based instruction could be another implication of the findings in this study. This refers to developing proficiency in language through materials chosen from the subjects that students are to deal with. Loads of materials with difficult syntactic and semantic features should be avoided. The main purpose is to enhance English knowledge through content rather than learning the content per se. Instruction is more effective because materials are of needs and interests to the students and are authentic as well. The result is more motivated students have fewer challenges and troubles reading their academic texts. Instead, they feel a greater sense of achievement in content based instruction (Short, 1994).

As for Iranian students, serious attempts should be made by the authorities to enrich L2 education particularly at high schools. In doing so the gap between university education and that at high schools is minimized. However, such plans demand expertise, money and time. Collaboration between efficient English teachers and subject teachers could be very helpful in this respect.

To promote the quality of language teaching and learning, some recent findings are in support of a focus on form instruction (Lightbown & Spada, 1994). This method along with corrective feedback are shown to be more effective than the instructions which emphasizes either accuracy or fluency. This doesn’t imply that the teachers should overlook all errors particularly the persistent ones. Helping students to notice through focusing the attention on such forms is effective. Obviously errors which are of developmental type cannot be easily corrected. Excessive feedback on errors might also have a negative effect. A recommended technique is to create
situations in the classrooms in which the students are encouraged to use the forms in communicative tasks, e.g., through asking questions and receiving feedbacks.

Unfortunately the majority of English teachers in Iran emphasize accuracy and do not care about communicative and spontaneous use of language being taught. The reason might be the tests in Entrance Exams which are chiefly accuracy based forms. On the other hand, pure communicative methods do not draw attention to form and error correction. It seems a balance between the two extremes is the most advisable method. However, keeping the balance is itself a challenge to teachers, because teachers should know when the corrective feedback should be given to which learners and for which forms.

Teachers have almost no control over most learners’ factors including IQ, motivation, cognitive styles and the like. What teachers can do is creating an atmosphere in the classroom conducive to more effective learning. The teachers should take into account the age, sex, field of study and background knowledge of the learners when embarking on the job of teaching.

References


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