1. Overview

The present study was conducted on undergraduates at Sana’a University with a view to investigate the skills and strategies adopted by the readers and learners of English and a foreign language, and to study the relation between language competence and comprehension on one hand, and between comprehension and reading speed on the other.

Chapter one deals with a number of theoretical issues regarding reading and comprehension. The focus is on reading models, reading strategies, and reading skills. Those aspects which are relevant to these major areas are carefully organised to go in line with our treatment of these issues. We saw that reading cannot be defined as decoding and interpretation only but must also include the element of interaction between the reader and the text. Different views on this aspect are briefly discussed in subsequent sections of Chapter I. Comprehension and ‘reading’ perspectives are followed by two issues of interest in reading comprehension: readability and schemata in section 5, p. 15. After that, we move to differentiate between metacognition and reading strategies, as these two concepts are often used interchangeably. This allows us to differentiate between good and poor readers, and to facilitate a closer comparison between reading strategies and reading skills, which are reported in separate sections 9 & 11, p 26 & 35. And since any reading programme should encourage fast reading, and since our study also investigates the relation of reading speed
to both comprehension and language competence, we touch upon the issue of fast reading in section 10, p.33. The penultimate section, Perspectives on Reading and Comprehension, provides the gist of the integration of all the theoretical issues regarding the relationship between reading and comprehension. The chapter ends with aims and objectives of the present study which includes: theoretically uncovering learners’ reading strategies, and investigating reading comprehension, language ability, and reading speed as well as the relationship that stands between these ‘elements’: practically, exploring through research the pedagogical aspects of reading (SL/FL) and recommendations for improving any reading programme, with special reference to Sana’a University. This aspect of teaching of reading especially English at the university level and the background studies have been discussed in detail in chapter two.

In chapter two we started by drawing a general picture of language learning; issues that are discussed include approaches towards learning and teaching a language, as well as those factors and conditions that affect learning to read particularly at advanced stages.

In this respect we do not ignore treating the major strategies and skills separately, such as pre-reading and while-reading strategies, individual tasks at the word level and at the global level. The subject of expeditious reading skills – such as skimming and scanning and extensive reading programmes are discussed in detail in section 6, p. 75.
In chapter three, methodology and procedural steps followed for conducting the study are discussed in detail. It includes a description of research methods in linguistics as well as those characteristics which describe the nature of statistical research. One independent section deals with the pedagogical concerns of this study. This is followed by the major hypotheses and research questions which serve as the starting point for our investigations. The subjects, the material, the variables and control, and the elicitation procedures are covered in section 4-6, p.92-97. After that, there is a section that covers a description of the questionnaire, the reading comprehension and language tests both formulation as well as analytical procedures.

Chapter four deals with the results of this study. It consists of seven sections: the first section opens with the general and broad results, and the last section provides a summary of the major findings. General overview of these results is given in sections 1&2, p.122-125. The remaining five sections contain the results and commentary on the hypothesis, the reading comprehension including speed of reading, and the language ability performance. The results of the statistical analysis in the form of correlation and linear regression are given in section 5, p.146 and finally there is a section on reading strategies which the learners adopted. This section also deals with a number of issues of concern viz. habits of reading, influence of the mother tongue Arabic, on scanning, daily reading time, the
most favourite texts to the learners as well as the most frequent uses of skimming.

In the following sections of this chapter we discuss the main findings, followed by a separate section on proposals and regarding recommendations for language pedagogy with specific reference to the reading programme at Sana`a University.

2. Language and Comprehension

It was found that Arabic native speakers read slowly (approximately 100-150 wpm) in the foreign language, i.e. English. We find support in the research on reading. Alderson (1984) argues by referring to various studies that foreign language learners mostly read slowly with less understanding. They indeed read slower in the FL than they reportedly read in the L₁. This is attributed to sometimes competence in the FL, sometimes to the transfer of L₁ reading skills and strategies to the L₂ reading, and sometimes to various other causes.

The other finding is that language competence not only affects comprehension, but also speed of reading; comprehension is affected more by poor vocabulary, difficulty of the structure, and unfamiliarity with both the writer's style and the text genre. Two different views are expressed below. The first goes in contrast to our findings, and the second goes in line with this conclusion.
Jolly (1978)\(^1\) (cited in Alderson) claims that success in reading a foreign language depends crucially on one's success in L1 reading ability rather than their competence in the FL. He asserts that those who fail in the FL reading do so because they fail to transfer the 'old skills' rather than acquiring the new skills. His view is that they either did not possess the old skills or failed to transfer them. If we accept this view, then its impact will be on reading strategies rather than reading ability. However, to test this claim we need to conduct an experiment on Arabic native speakers in both Arabic and English, and then carry a statistical analysis in order to investigate the 'dependence' of the FL reading ability on that of the L1.

The contrary view is that of Yorio (1971) with a focus on the end product and later Alderson and Urquhart (1984) with a focus on the process which leads to better end results. He claims that the problem of the FL reading is due largely to imperfect knowledge of the language. He adds that another problem might be the interference of L1 with the (FL) reading process, as prevailed in syntax, phonology, and semantics of the mother tongue. In his view, reading involves four factors: knowledge of the language, ability to predict or guess in order to make the correct choices, ability to remember the previous cues, and ability to make the necessary associations between the different clues/cues that have been identified or selected.

---

Alderson and Urquhart (1984) argue in their Introduction (xv-xxviii) that focus on reading should not be on the product but rather on the process for a number of reasons. Firstly, research has failed to find evidence that reading consists of a series of subskills. Secondly, testing readers' comprehension and trying to elicit reading skills by analyzing outcomes can only be related to each other with difficulty. Thirdly, knowing what a reader has understood does not, in itself, help one decide how he/she understood it, and cannot help in improving their level, either. Fourthly, "these levels of understanding do not relate the process of understanding but to the product [....] A description of what a student has understood of a text is not the same as a description of how he arrives at such an understanding" (op.cit. xvii - xviii). It is possible that readers use different processes to arrive at the same products, or vice versa. Fifthly, the product of reading will vary according to the reader, because they start off different positions. Sixthly, the product of reading will vary according to the reader's purpose and motivation. The final point, they make, is that the tradition of research into 'skills' "is based upon the assumption that texts have predictable meanings, which can be extracted if only the reader is sufficiently skillful". (ibid., xix). But texts have no meaning but potential for meaning, and readers arrive at meaning by interacting with the text.
3. Comprehension, Speed and Language Ability

One of the important concerns in this study is to investigate whether those who are linguistically competent in the foreign language are better readers in that language than those who are weak at it. There seems to be a definite link between language ability and reading comprehension. The more linguistically competent a group, the higher score they got. By looking at the figures in Table 5.1 below and comparing the means of reading comprehension and language ability, we find that there seems to be a linear relation: Arts group scored nearly 60% in language ability and got slightly higher marks in reading comprehension, whereas for Education group it is 43% to 48%.

*Table: 5.1 Means of reading speed, comprehension and LAT.*

<table>
<thead>
<tr>
<th></th>
<th>Arts</th>
<th>Education</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>Speed of reading (w.p.m.)</td>
<td>100.6</td>
<td>107.8</td>
</tr>
<tr>
<td>Comprehension (out of 100%)</td>
<td>56.3</td>
<td>60.7</td>
</tr>
<tr>
<td>LAT</td>
<td>59</td>
<td>59</td>
</tr>
</tbody>
</table>

It can be said that learners did well in the test, despite their unsatisfactory results. This statement is not contradictory, because these results are viewed from the point of the pressurising situation in which the subjects
are set. Those who had a good command of the language showed both an increase in speed of reading and in comprehension. We concluded that (i) learners can be trained to read 200 wpm with an increase in comprehension up to 70% and that (ii) reading speed positively influences comprehension when readers achieve a certain level of language competence. We assume this competence to be in the middle of the 9-point scale of IELTS\(^2\).

Clarke (1988), who shares Alderson's view speaks of a language ceiling, which if it is too low, will restrict a reader's ability to interact with the text. Alderson (1984) talks of a threshold level of linguistic competence, which will vary according to the text demands, but below which the reader cannot engage meaningfully with the text. (See also Williams & Moran (1989) and Devine (1986).

In the paragraphs above we discussed the relation of language ability to reading comprehension and to speed of reading. These variables are statistically tested in our study and discussed in detail in chapter four. A summary of the results of our study in terms of statistical correlation between the three variables (language ability, comprehension and speed of reading) across the two kinds of groups (Arts vs Education, and Male vs Female) are summarized below in table 5.2.

---

1. One can refer to the specifications in the IELTS code of evaluation.
Table 5.2: Correlation between the results of reading speed (RS), language ability (LAT) and reading comprehension (RC).

<table>
<thead>
<tr>
<th>CORRELATION</th>
<th>Groups</th>
<th>(1) RS and RC</th>
<th>(2) RS and LAT</th>
<th>(3) RC and LAT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Arts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>0.4053</td>
<td>0.4733</td>
<td>0.3709</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>0.1875</td>
<td>0.1235</td>
<td>0.4901</td>
</tr>
<tr>
<td></td>
<td>All</td>
<td>0.2675</td>
<td>0.2669</td>
<td>0.5504</td>
</tr>
<tr>
<td></td>
<td>Education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>-0.0472</td>
<td>0.3803</td>
<td>0.5981</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>0.0770</td>
<td>0.0711</td>
<td>0.2063</td>
</tr>
<tr>
<td></td>
<td>All</td>
<td>-0.0183</td>
<td>0.1555</td>
<td>0.2724</td>
</tr>
</tbody>
</table>

**Reading Speed and Reading Comprehension:** (Please refer to column 1 in Table 5.2 above). Arts group shows 0.2675 in contrast with the education group i.e. which is negative -0.0183, which indicates that *reading speed affects comprehension or vice versa, only after readers achieve a certain level of language competence*. By the same token, we may say that it is not necessarily correct that a slow reader (as in careful reading) will understand better than a fast reader. In such situations, other variables might well have a role to play such as intelligence, and familiarity/ unfamiliarity of material in terms of structure, content and vocabulary.
By looking closely into the statistics between reading speed and reading comprehension in the table above, we observe that the male-arts group shows a positive and higher correlation (0.4053), whereas it is the opposite for the male-education group, i.e. low and negative (-0.0472). On the other hand, the female-arts group shows, too, a correlation higher than that of the female-education group.

The female-education group shows a positive correlation contrary to that of male-education group, which is negative. Since the correlation is only 0.0770 for females as against -0.0472, it is statistically insignificant. For arts group, the relationship between reading speed and reading comprehension is positive. This relationship is stronger with males than it is with females.

**Reading Speed and Language Ability:** The correlation between reading speed and language ability is positive and apparent across all groups. (See column 2 in Table 5.2 above). It is 0.2669 for Arts and 0.1555 for Education. This means that language competence also plays a role in
reading speed, i.e. the rate at which one reads. This relationship endorses our conclusion above regarding the relationship between reading speed and reading comprehension, that the more linguistically competent a learner is the higher the rate at which he/she reads, and subsequently a slight increase in comprehension as well.

<table>
<thead>
<tr>
<th></th>
<th>Arts</th>
<th>Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>0.4733</td>
<td>0.3803</td>
</tr>
<tr>
<td>Female</td>
<td>0.1235</td>
<td>0.0711</td>
</tr>
<tr>
<td>All</td>
<td>0.2669</td>
<td>0.1555</td>
</tr>
</tbody>
</table>

(Reference to column 2 in Table 5.2, p.180)

If these statistics are compared from a gender point of view, we observe that male groups in both groups scored higher correlation than female groups. Male-arts group shows a correlation of 0.4733 as compared to that of male-education group 0.3803, with a difference of 0.0930. On the other hand, the female groups show a lower correlation of 0.1235 and 0.0711 for both arts and education respectively and a difference of 0.0524. These differences -male groups being higher than female groups- may be explained by extreme differences among individual male subjects. (See Appendix G, Reading Comprehension from G1 to G4). Another reason might be the larger number of subjects in the female group. Anyhow, the conclusion is that both male groups in either group show a significant relationship between language ability and reading speed. However, the
overall result shows that Arts and Education revealed a strong relationship between reading speed and language comprehension and that males here performed better than females.

**Reading Comprehension and Language Ability:** (See column 3 in Table 5.2 above). The relationship between language ability and reading comprehension is obvious across all groups. The results only support the conclusion that language ability has a direct impact on reading comprehension. Arts performed better in comprehension simply because they performed better in language ability. The high correlation coefficient they got here (0.5504) is an indication, whereas it is 0.2724 for education. As all groups show a positive and significant correlation, then the influence of language competence over reading comprehension cannot be ignored, and can be *generalised*.

<table>
<thead>
<tr>
<th></th>
<th>Arts</th>
<th>Education</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Male</strong></td>
<td>0.3709</td>
<td>0.5981</td>
</tr>
<tr>
<td><strong>Female</strong></td>
<td>0.4901</td>
<td>0.2063</td>
</tr>
<tr>
<td><strong>All</strong></td>
<td>0.5504</td>
<td>0.2724</td>
</tr>
</tbody>
</table>

(Reference to column 3 in Table 5.2, p. 180)

From a gender point of view male-education group shows a higher correlation (0.5981) than that of their male arts group (0.3709). The difference is 0.2272. For females, it is the opposite; the figures are 0.4901 and 0.2063 for Arts and Education respectively, with a difference of
In brief, male-education group and female-arts group exploited their language for comprehension better than their counterparts in both groups, i.e. female-education group and male-arts group. However, when the comparison is set within the group, i.e. male vs female in Arts and Education, the situation differs slightly. Male-arts group, as compared to the male-education group, does not show a significant difference (0.0193), whereas female-arts shows a statistically significant difference to their female-education counterpart (0.3918). It seems that the female-education group did not concentrate on the global comprehension, and that they focused on the local comprehension at the sentence and word level.

4. Text and Purpose

For pedagogical reasons we tried to identify the type of text/texts that most students preferred to read. This will help in selecting the type of material students prefer to read, therefore, encouraging them to read more. Four types of reading genre were of great interest to our subjects. Table 5.3 below shows the total percentage each text type got out of 126 respondents. The significance of this result indicates that students like to read for pleasure not for study and memorisation. They prefer to read what is not enforced on them, like news articles. They can be encouraged to do so for the sake of reading, but also should be encouraged to read for study through specific classes designed for study skills.
5.3 The most favourite text types among all groups taken collectively.

<table>
<thead>
<tr>
<th>Rank</th>
<th>Text Type</th>
<th>% All groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Short Stories</td>
<td>77</td>
</tr>
<tr>
<td>2.</td>
<td>Novels</td>
<td>67</td>
</tr>
<tr>
<td>3.</td>
<td>Newspapers</td>
<td>62</td>
</tr>
<tr>
<td>4.</td>
<td>Magazines</td>
<td>58</td>
</tr>
</tbody>
</table>

The purpose of scanning and skimming was also investigated through the questionnaire part II, and to sum up four major purposes identified are given below. Scanning and skimming are used almost everyday by students. While the purpose of scanning is almost established, that is locating a piece of information in the text, there is still fluctuation in the use of skimming. We therefore decided to examine closely and find out the most common purposes of skimming. Four major purposes were prevailing as shown in the Table 5.4 below.

5.4 Most common purposes of skimming. There is a general agreement across all groups.

<table>
<thead>
<tr>
<th>Rank</th>
<th>Purpose</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>To get the main idea</td>
<td>74</td>
</tr>
<tr>
<td>2.</td>
<td>To get a general impression about the text.</td>
<td>60</td>
</tr>
<tr>
<td>3.</td>
<td>To find a certain fact within the text.</td>
<td>48</td>
</tr>
<tr>
<td>4.</td>
<td>To get an answer for a certain question</td>
<td>35</td>
</tr>
</tbody>
</table>

185
5. Recommendations

5.1 Academic Recommendations

Text analysis shows that a written text has a function. This function is realised in a sentence or a number of sentences, i.e. a paragraph. We, therefore, suggest that some practice on the following functions of a text, whether these functions are realised in a paragraph or a sentence of a paragraph. These types of functions are usually taught at the intermediate and advanced levels, because students encounter them in their reading for study. Specialised reading materials can be prepared in order to achieve such goals. The most common functions are listed below:

- Generalisation, or the topic sentence.
- Exemplification
- Comparison and contrast
- Consequence, or cause and effect
- Explicitation, or narrowing down of information
- Elaboration
- Justification, giving seasons
- Explanation
- Classification
- Description
- Definition
- Characterization, or partial definition.
• Statement
• Reformulation, or restating a preceding proposition.
• Evaluation, or knowing writer's opinion

For teaching skills and strategies we recommend the following steps to break the skills and strategies into sub-components, from macro level to micro level:

1. **Comprehension**
   - Find main idea and related details when looking for gist of meaning.
   - Organize and classify facts particularly when reading critically, distinguishing facts from opinion.
   - Perceive sequence of ideas in order to facilitate comprehension and understanding.
   - Draw inference and conclusions by relating what is understood to previous knowledge.
   - Predict outcomes
   - Understand relationships whether between ideas, paragraphs or sentences.
   - Read for appreciation
   - Form judgments and evaluate comprehension.

2. **Inferencing**
   - Read the idea and understand it well.
• Discover its main characteristics (what is it about?)

• Go through the text to find the relevant part; connect together to assist in inferencing.

• Examine the contents of other parts to see whether it supports or stands against the idea.

• Apply logic and argument.

3. **Looking for specific information**

• Know the idea you want to know more about

• Skim the text and scan paragraphs

• Stop at the relevant part

• Read the relevant part carefully, but not too slowly

• Examine the contents of that particular part, and relate to what has been read earlier.

• Continue skimming till you are fully satisfied, and continue in the same way as mentioned above.

4. **Word recognition**

• Recognize basic sight words.

• Use phonetic analysis

• Use structural analysis

• Use contextual clues for word meaning
• Use dictionary to check meaning

5. *Syntactic Information*

• Verb structure

• Word formation

• Relative clauses

• Word to word relation

• Punctuation

Finally we would like to suggest that students can also be given extensive classes on study skills, particularly the following:

• Understand parts of a book

• Understand the index of a text

• Use of the dictionary

• Use of the encyclopedia

One should observe that each sub-component can be further analysed, but that is left to the teachers to train their students on these skills and strategies. Nevertheless, these skills and strategies overlap and complement one another so that practice on one *skill*, or strategy, will improve other skills, and may probably need to practice other lower skills in the hierarchy in order to achieve that *skill* or strategy.
5.2. Organisational Recommendations

Since the teaching of reading at the departments of English at Sana’a University lasts for four full semesters, starting from the first year of study at those departments, we recommend the following:

1. Stating clearly the general goals of the reading programme throughout the years of study, including the relation of reading (as a subject) to the other subjects, such as drama, novels, other language skills, etc. These goals can be built on what has been discussed in chapter one, particularly sections 7, 8, 9 and 10 and chapter two, section 4.

2. Outlining the aims of each reading course in every semester. This is achieved through breaking the major goals into sub-goals (their components) so as to provide the basis for detailing the syllabus.

3. Detailing a reading syllabus for every semester in which aims can be further broken into objectives. The syllabus should include the time devoted for teaching specific materials designed to realise a predetermined objectives. It should hint at the suitable activities, and if necessary how the teacher should go through them in the classroom. Students should be given an outline of the reading course from the beginning of every semester in order to know the objectives, skills and strategies that are emphasised upon.
4. The graded textbook may be carefully prepared keeping in mind the aims and objectives and should also include a list of the supplementary reading material.

These steps should be taken to replace Arabic as the medium of instruction by English in due course of time, to begin with, for social sciences, humanities and later on for science and technology as well. We also recommend that each English department should –through inter-departmental cooperation– create its own ‘Manual of Reading Comprehension’. This ‘manual’ may include sample material for practising the major reading skills and strategies, and suggested methods of teaching. Finally, depending on the revised reading programme, new guidelines of testing and evaluation, both progressive and summative assessment can also be suggested, which could lead to the standardisation of reading at Sana’a University.

We hope that we have succeeded in adding a building block in the vast human knowledge, particularly in our field, applied linguistics.