This paper summarizes research findings on academic reading obtained from a questionnaire, two reading tests, and a textbook analysis and discusses essential reading skills required of foreign language (FL) learners in carrying out their academic studies as well as the skills with which they have problems. Results revealed that the essential reading skills required and the skills with which students have the most problems are: skimming; understanding unknown words; and reading a text or parts of a text more slowly and carefully to extract relevant information for a written assignment, such as an essay, dissertation, or examination. Correlations between reading tests testing global skills and discrete skills indicate that these learners tend to do better on global skills; poor and highly competent learners seem to use their skills eclectically or holistically whereas testing of global and discrete skills would produce quite different results for learners of average competence. Findings also suggest that too much emphasis in English for Academic Purposes (EAP) reading has been given to careful and detailed reading at the cost of faster reading skills, required of learners and with which they have the most problems. It is concluded that separate, divisible, and identifiable reading skills exist from the point of teaching, learning, and materials writing. (Contains 47 references.)

(Author/NAV)
WHAT FOREIGN LANGUAGE LEARNERS DO IN THEIR ACADEMIC READING?

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What Foreign Language Learners Do in Their Academic Reading?

ABSTRACT

Competence in academic reading is a key component in obtaining higher degrees for foreign language learners in English medium universities. This paper summarises research findings on academic reading obtained from a questionnaire, two reading tests and a textbook analysis. It further discusses essential reading skills required of FL learners in carrying out their academic studies and the skills they have problems with while pursuing their higher degrees.

Results revealed that the essential reading skills required in FL learners' academic studies and the skills they have most problems with are 1) skimming and 2) reading a text or parts of a text more slowly and carefully to extract all the relevant information for a written assignment such as an essay, dissertation or examination and 3) understanding unknown words. Correlation between reading tests testing global skills and discrete skills indicated that these learners tend to do better on global skills. Poor and highly competent learners seemed to use their skills eclectically or holistically whereas testing of global and discrete skills would produce quite different results for learners of average competence. The results further suggested that too much emphasis in EAP (English for Academic Purposes) reading has been given to careful and detailed reading at the cost of faster reading skills which are required of learners and which they find most problems with.

INTRODUCTION

Background of the research

Of all the varied activities of foreign language teaching and learning, reading is one of the most pervasive and important skills for most learners. Getting higher degrees in English medium universities especially involves reading extensively academic materials written in English. Without good reading proficiency, learners are unable to carry out their academic studies and compete with their native English-speaking counterparts. Thus, for all the foreign students who aim to carry out such studies in English medium universities, effective reading in English is crucial.

This study was carried out in the Centre for Applied Language Studies at the University of Reading in 1993. Each year an immense number of multilingual students from all the world who use English as a foreign language come to the university mainly to study for higher degrees. A pre-sessional course was offered to them for four, eight and eleven weeks respectively according to their IELTS scores (International English Language Testing System). This course aimed to get them prepared before the commencing of their academic studies. Once in the real academic setting, they were expected to read as much and be as capable as their native counterparts. They were expected to continue to develop as language
learners, yet with little or no instructional support in the use of the language. They were also required to read selectively and intensively and at a relatively high speed which is crucial for their academic success.

Theoretical Background

In recent years, lots of research studies have concentrated either on the product of reading or the process of reading. However, more data should be collected as to what reading skills are required of these learners in order to carry out their academic studies and the skills they have problems with in their academic studies. A thorough understanding of the complex nature of academic reading skills based on data collection is essential for guiding teaching and testing of EAP reading.

1. Reading models
Reading involves employing various kinds of knowledge that a reader brings to the text that he or she is reading. These knowledge fall roughly into three categories: linguistics knowledge, knowledge about the rhetorical structure of the text, and background knowledge concerning the content area assumed by the text passage. It is generally agreed that all these three kinds of knowledge play a role in the process of understanding a text. Reading theorists have hypothesised different reading models to emphasise the roles of different factors in the reading process. Several reading models of the reading process play important roles in second and foreign language acquisition and pedagogy. They are as follows.

1) Bottom-up model (Carver, 1978; Cziko, 1978, 1980, 1981) assumes a greater role of linguistic factors in the process of reading;

2) Psycholinguistic model (Coady, 1979) which is developed correlating with top-down model (Goodman, 1988, 1973, 1967) in L1 reading and schema theory (Anderson & Pearson, 1988; Anderson, 1978; Pritchard, 1990; Rumelhart, 1980) er phases on the content concepts of a passage. Readers first supply semantic concepts to a text and then test whether these concepts match with the text content by examining what are on the printed page.

3) Interactive model (Carrell, 1988; Carrell, Devine & Eskey, 1988 and Rumelhart, 1977) posits constant interaction between bottom-up and top-down processing. A good reader, according to this model, makes effective use of both his linguistic knowledge and his knowledge of the world in decoding and interpreting the information in a text.

2. Recent reading research
Many of the contemporary studies have been done according to the framework of the above three models. There are two research studies that are directly related to this study;


Research studies have attempted to discover whether reading is composed of different subskills that might relate to one another within a taxonomy or hierarchy of skills. There are many taxonomies that have been drawn up varying in length from three or four skills to long lists comprising thirty or forty distinct ones as discussed in Alderson (1984a, 1984b); Matthews (1990); Munby (1978); Rosenshine (1980); Seddon (1978).

Typical of such taxonomies is that of Barrett (1968) in William and Moran (1989). Barrett distinguishes five skills: literal comprehension, reorganisation of the ideas in the text, inferential ability, evaluation, and appreciation. Davies and Widdowson (1974) come up with a similar list of skill types of reading comprehension questions relevant to the testing of reading ability; direct reference questions; inference; supposition and evaluation questions. Spearritt (1972:109) working on Davies data changed 'identifiable separate skills' to: 1) recalling word meaning; 2) drawing inference from the content; 3) recognition a writer's purpose, attitude, mood and tone; and 4) following the structure of a passage.

However, there is little consensus as to the content of these taxonomies or the terminology used to describe them (William and Moran 1989). William and Moran (1989:223-224), in discussion of the work of Barrett (1968), Davies (1968), Spearritt (1972) and others, observe that it may not be psychologically valid to list discrete reading skills. This is supported by Alderson and Urquhart (1984:xvii-xviii), who referring to Lunzer and Gardner (1979), point out that attempts to identify skills are typically carried out through comprehension type exercises. Doing such exercises does not necessarily amount to reading. They go on to mention other drawbacks to and concern over the notion of skills: 1) the concern with the product of reading rather than the process 2) the nature of the reader himself (e.g. background knowledge or culture) and 3) variables such as the reader's purpose and motivation.

However, as is pointed out by Williams and Moran (1989) that "Educators and material writers in the EFL world nevertheless have faith in the existence of such skills, and produce materials accordingly." Similarly, it has been suggested by some teachers in the USA (Williams and Moran refer to Carrel et al 1988) that ESL and EFL reading programmes should include training in skills and strategies. It is possible to talk about distinct reading skills. It is feasible to help students to improve them as well. Furthermore, if knowledge is required as to what FL learners are doing when they actually read in their academic studies, we might have to consider the reading process of transferring L1 reading ability into L2 or FL reading ability. Reading a second or foreign language involves a transfer of first language reading abilities and proficiency into the second or foreign language (Clarke and Silberstein, 1979; Carrell, 1988; Alderson, 1984a; Hudson,1938).

This above issue has been a matter of debate for some time. Some researchers (Jolly 1978, as referred to in Alderson 1984a; Coady, 1979) have argued that reading in a second language depends crucially upon reading ability in one's first language rather than upon their level of
ability in the second language. According to this view, students who read poorly in the second language do so either because they do not possess good reading skills in their L1, or because they fail to transfer them. Once learners have matured in their ability to read in the first language, it does not need to be relearned (Rigg 1977; Gamez 1979). However, other researchers have argued that reading ability in a second language appears to be largely a function of proficiency in that language, or at least some minimal threshold of proficiency needs to be attained in that language before good readers' first language reading strategies can be transferred to reading in L2 or FL (Clark and Silberstein, 1979; Carrell, 1988, 1986; Cziko 1980 and Devine et al, 1987). This is the well-known 'language threshold' or 'language ceiling' or 'short-circuit hypothesis' of second language reading.

According to Carrell (1991), through his research hypothesis (L2 reading = L1 reading ability + L2 language proficiency), both first language reading ability and second language proficiency have significant effects on second language reading ability. According to his research, first language ability and second language proficiency play different roles in learners' second language reading ability depending on their different language backgrounds. L2 and FL reading ability is not a simple concept to be defined. It is still difficult to tell when the threshold could be reached and what would the valid content of the threshold for particular groups of language learners consist of.

3. Present study

This present study was based on the existence of those reading skills mentioned above. It aimed to find out what reading skills are highly required of learners in their academic studies and what reading problems learners have when pursuing their higher degree studies. If it is a reading problem, what essential skills are involved? If it is a language problem, what major problems they have? Or if it is a combined problem of L1 reading problem and L2 or FL proficiency problem (Carrell 1991), we would like to know what the most essential reading problems are in learners' academic studies and what their existing language problems in L2 proficiency are. This study aimed at answering the following research questions.

1. What reading skills do learners feel are essential and what reading skills do learners feel they have most problems with in their academic studies?

2. How is test performance on global reading skills related to that on discrete skills?

3. What is the relative balance of reading tasks and skills trained in the pre-sessional reading textbook designed to help learners to cope with their academic studies?

METHOD

This study was designed as a multi-method descriptive and analytic study which employed a variety of quantitative and qualitative research methods, including a questionnaire, two tests and a reading task analysis. This study was carried out from March to September 1993 at the University of Reading, UK.
Subjects

The subjects for the survey study are multilingual postgraduates from a range of cultural, educational and specialist backgrounds who had been pursuing higher degrees in the University of Reading since 1992. They were required to attend a pre-sessional course for four, eight and eleven weeks according to their IELTS scores. Questionnaires were issued to 120 those students. These 120 learners consisted of all the students enrolled in the pre-sessional course in 1992 who were still studying at the University of Reading by the time of the research. By then, they had already finished the pre-sessional course and had already been in their academic studies for more than seven months. They knew exactly what reading skills had been required of them through their own experiences and the difficulties they had in their academic reading.

48 such subjects who came to Reading for the pre-sessional course in July, 1993 were issued two sets of reading tests testing global and discrete skills. The nature of their reading needs was the same as the above group of students. However, they hardly knew what was expected of them in their academic reading. Test results showed their general entrance level of reading proficiency and their performance on different levels of reading skills.

Four EFL teachers teaching the pre-sessional course were asked to analyse each reading task in the textbook and identify its main focus in terms of the reading skills that task is practising. The purpose of the analysis was to get a clear picture of the overall balance of skills trained through reading tasks designed in the textbook.

Data Collection Procedures

1. Questionnaire

A questionnaire¹ (See Appendix I) was designed to follow up the pre-sessional reading course at the University of Reading to provide an indication for further needs analysis and evaluation for future adaptation. The questionnaire aimed at collecting data from the learners' point of view of the essential skills which are required of them in their academic studies and the problems they have encountered in their academic studies.

The questionnaire consists of both closed and open-ended questions. The first part of the questionnaire consists of four major reading skills which were highly specified from theoretical and research sources with 4 likert scales on both sides. The two kinds of rating scales are the importance rating scale and the difficulty rating scale. Both parts of the rating are related with the learners' academic studies. The second part of the questionnaire consists of two open-ended questions regarding academic reading. In this part, learners were invited to write about their experience of academic reading.

¹ This questionnaire can also be found in Weir And Roberts 1994 Evaluation in ELT Blackwell Publishers
The initial stage of the questionnaire design was to analyse the reading process and identify the enabling skills which are necessary for successful performance in the target situation in order to establish a taxonomy of reading skills in the academic context drawn from the work of Munby (1978), Weir (1983, 1988 and 1993) and Hughes (1988). The second stage was to choose the types of texts learners read in their subject areas chosen from informal interview with those learners and their subject lecturers. However, as the preliminary results were in accordance with previous work done by Weir (1993) and Hughes (1988), this part of text type analysis was eliminated from the questionnaire. The final stage was to decide on the importance and difficulty category scales on a 4 likert scale. Specified reading skills and text types would then form the basis for the investigation into EAP reading and the subsequent criteria for the evaluation of the content and construct validation of the teaching and testing of reading.

2. Reading Tests
Reading tests used in this study consisted of one TEEP test (Testing for Educational Purposes) and two gap filling tests. All of them were designed and validated over years in CALS at the University of Reading under the supervision of Dr. Weir. The TEEP test consisted of two parts. Part A tested learners' abilities to get main ideas and major supporting details in a reasonably short time. Part B tested reading thoroughly to understand specific structure and lexical items. The other two gap filling tests tested similar skills as Part B of the TEEP test.

3. Reading Task Analysis
A pro forma of reading task analysis of the pre-sessional textbook was designed on the basis of the questionnaire. However, three other reading skills have been added to the analysis to avoid oversimplifying the teaching situation. These three added reading skills were also included in the earlier pilot study. They are as follows and are labelled after the first four skills.

5. Pre-reading activities: Predicting and surveying which involve looking quickly through a book, a chapter of a book, article from a journal, etc., to decide whether or not it is suitable for your purpose.
6. Follow-up activities leading to writing.
7. Understanding structure at the sentence level (within and between)

Table 1 Three added reading skills on the basis of the questionnaire ((See Appendix I)

Data Analysis Procedure
The questionnaire was analysed to obtain a clear picture of the skills which learners feel essential and the skills which learners found problems with in their academic studies. Cross tabulations were done to find out the implicational relationships between skills learners regarded as important and as difficult. Qualitative data of the two open-ended questions in the
questionnaire were classified and categorised into major areas of problems learners have encountered in their EAP reading.

Test results were analysed by using SAS to find out whether or not there was a relationship among tests testing different skills. Linear regression were done among different sub-tests to find out the correlation 1) between Part A and Part B of the TEEP test and 2) Part A of the TEEP test with the other two gap filling tests. The Pro forma for textbook analyses was analysed to discover the relative balance between reading tasks and reading skills designed in the pre-sessional textbook.

RESULT

Questionnaire

Of the 120 questionnaires issued by internal mail within the University of Reading, 63 respondents were included in the study. They covered a wide range of learners' subjects and were representative of the international students in the university. Quantitative data were coded and analysed according to the importance and difficulty scale on the reading skills perceived by learners. Qualitative data of the two open-ended questions in the questionnaire were classified and categorised into major areas of problems learners perceived in their academic reading. Both quantitative and qualitative data from the survey facilitated an understanding of the substance and meaning of EAP reading.

1. Quantitative data

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>Std Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>STUDENT</td>
<td>63</td>
<td>32.00</td>
<td>18.33</td>
</tr>
<tr>
<td>IMPORT1-skimming</td>
<td>62</td>
<td>1.51</td>
<td>0.56</td>
</tr>
<tr>
<td>IMPORT2-scanning</td>
<td>62</td>
<td>1.75</td>
<td>0.80</td>
</tr>
<tr>
<td>IMPORT3-main ideas</td>
<td>60</td>
<td>1.41</td>
<td>0.59</td>
</tr>
<tr>
<td>IMPORT4-vocabulary</td>
<td>60</td>
<td>2.12</td>
<td>0.72</td>
</tr>
<tr>
<td>DIFF1-skimming</td>
<td>58</td>
<td>2.57</td>
<td>0.62</td>
</tr>
<tr>
<td>DIFF2-scanning</td>
<td>58</td>
<td>2.62</td>
<td>0.58</td>
</tr>
<tr>
<td>DIFF3-main ideas</td>
<td>57</td>
<td>2.35</td>
<td>0.79</td>
</tr>
<tr>
<td>DIFF4-vocabulary</td>
<td>54</td>
<td>2.56</td>
<td>0.79</td>
</tr>
</tbody>
</table>

Table 2 The general tendencies from the questionnaire respondents.
Figure 1 below showed how learners perceived those reading skills in their academic reading according to both importance and difficulty scales. It further showed the cross relationship learners perceived on both scales against the major reading skills in their academic studies. This part of the results gave a clear picture of whether the reading skills learners perceived as important in their academic studies would necessarily be difficult for them.

2. Qualitative data

The following qualitative results were obtained from the two open-ended questions in the questionnaire. Learners of different disciplines wrote about the skills they found essential and the skills they found problems with in their own words. The results were summarised into the following four categories. Learners’ quoted words were in verbatim form.

1) Understanding unknown words

Of all the responses, slight more than a third of the subjects mentioned that understanding unknown words was the skill they had most problem with and were crucial in their studies.

"In the last exam, I found unknown words in an exam question and hence I could not choose the question."

"My main problem is when I find an important word in a text and I don't know the meaning, and probably without that word you can not understand the text."

"I still have a problem in the point of technical terms which sometimes do not have any referring term in the context."
2) Reading speed

Another one third of the subjects regarded reading speed as something that brought difficulties to their academic reading, which was in conflict with thorough understanding. Learners complained that they simply could not read fast enough, yet there was an urgent need to get a large amount of information through reading. The fact is that most of the non-native students could not read in English as fast as they did in their own languages. And when they read fast, they could not understand fully. This created anxiety in academic reading which frustrated students at all levels of their academic studies.

One learner mentioned his experience in the following way.

"The most important i. to read in depth which is crucially required in my discipline. The problem is I still have a problem in reading speed. I normally take an incredible long time to read through a long passage that the speed in reading sociological text is not relevant to good reading. It is sure that I can get much information by skimming and scanning, but it is unlikely to help me to understand."

3) Reading academic texts

One quarter of the subjects thought that their problems in reading were due to the lack of training in reading in their specialised areas. They commented that pre-sessional course should have provided them with extra help to read academic texts in their own areas.

"If they (CALS) provide such reading materials that are very close to each student's field of future study, it could be more helpful. The pre-sessional reading course is helpful for improving one's general reading skill, but in the case of academic reading, it seems to me that to learn as many words related to one's own study field as possible would be more important than to learn skimming and scanning skills."

"There is, therefore the need for an individual pursuing the pre-sessional reading course to be exposed to some technical text relevant to his/her area of specialisation. Material for reading practice should be relevant to an individual course of specialisation."

4) Reading at sentence levels

About another quarter of the subjects mentioned that they had difficulties in understanding text organisation and writer's attitude. They commented that

"Difficulty in understanding the writer's attitude towards the argument she or he makes. Whether the writer is agreeing, disagreeing, supporting or convincing the reader with his or her view."
"It is difficult to grasp the context and the author's thought, because not many of them put the subtitle of a section or a group of paragraphs."

The above reading skill was originally specified as "ability to use specific knowledge of structure at the sentence level (within and between)" in the questionnaire. It was later removed from the questionnaire since earlier piloting study showed that most of the students did not have major problem with this skill. However, the qualitative results did show that certain learners had problems with the structure of the language. It further showed that understanding the complex nature of academic text required not only the knowledge of grammar but also an understanding of the ideas embedded under the reasoning in the academic texts.

Reading test

Two kinds of reading tests were issued to 48 students who came to the University of Reading in July, 1993 for the pre-sessional course. The aim of these tests was to find out the level of their proficiency in reading on different skills and the possible relationships of testing of different skills. Statistical analysis was done by using SAS to obtain all possible testing data. Linear regression was carried out to find out the correlation between these tests. Results presented in Figure 2-3 (See Appendix II-III) showed the relationship between testing of global and discrete skills.

Results from different parts of the tests testing global and discrete reading skills correlated on the 0.707, 0.574, 0.743 level. Plotting of the linear regression of Part A and Part B of the TEEP test showed that there was no correlation between testing of global skills and testing of discrete skills for learners of average competence. No systematic relationship of their performance was found. Whereas for the top and poorly performed learners, there seemed to be a tendency of correlation. If they did well on testing of global skills, they also tended to do well on testing of discrete skills and vice versa.

Reading task analysis

A reading task analysis was done of the textbook INTEGRATED READING & WRITING COURSE (MacGovern, forthcoming) for the pre-sessional course at the University of
Reading. The analysis was carried out by four ELT teachers through a pro forma. The pro forma analysis consists of two parts:

1) descriptive analysis of frequency of reading skills trained through all 103 reading tasks designed in the textbook and

2) teachers' degree of agreement on the analysis.

Figure 4 Skills Trained through Tasks in the Textbook

The above frequency table showed that the third skill - *reading text or parts of a text more slowly and carefully to extract all the relevant information*, was trained in more than 30% of all the tasks in the textbook. The other three main reading skills were practised in about similar number of tasks. Skills of numbers five and six were practised in relatively fewer tasks. As can be seen from the above table, pre-reading activities were practised the least though these activities were essential in reading activities.

The second part of the analysis showed there was a general consensus among the teachers who did the textbook analysis regarding discrimination of separate skills practised via each task. The results showed that among the 103 reading tasks in the textbook, four teachers reached total agreement on the analysis of 45% of the tasks. On 21% of the tasks analysis, only three teachers agreed with each other. Teachers' opinions differed over the rest of the tasks as to which task was training which reading skills.
DISCUSSION

Learners' perceptions of the essential reading skills required of them and the skills they find most problems with in their academic studies

According to the questionnaire results (See Figure 1), we found out that the essential reading skills learners graded on the importance and difficulty scales were not in the same order. Skimming comes highest on the importance scale, yet the third lowest on the difficulty scale. Whereas the least important skill - understanding unknown words comes highest on the difficulty scale.

The typical reading requirement for learners in their academic studies is skimming: reading a text quickly in order to establish a general idea of the content e.g. to determine what part, or whether part or whole, is relevant to an established purpose and then followed by reading more carefully and critically. These learners facing a massive amount of information to process in their academic studies are required to read selectively by applying the skill of skimming. It is crucial for both native speaking learners and non-native speaking learners to read massively to get information about their subjects in order to carry out their research. However, there is always a conflict of time and the ability to search for needed information. Learners are often at a loss with a large amount of written information to read in order to find the information they need. In this sense, skimming is a reading skill as well as a study skill for learners in the EAP context.

Although the skill of understanding unknown words was perceived as the least important among other skills by the learners, 56% of the subjects claimed that vocabulary caused difficulty in their academic reading. This might suggest the following two reasons:

Firstly, for non-native learners who learned English as a foreign or second language, English is not their medium of instruction in most cases. Their proficiency level is not good enough for them to cope with their academic studies in English as comfortably as they can do in their native languages. It takes them much longer time to achieve that proficiency level as in their native languages. Therefore, reading at this stage is a language problem especially in terms of a large stock of vocabulary.

Secondly, the difficulty with terminology is another big problem for these learners pursuing higher degrees at the University of Reading. Thus, terminology would not be simply a language problem. It is also a problem of their subject studies. The nature of their academic studies required them not only to know the words with common meaning but also with specialised meaning in their particular areas. In some extent, the more they know about their subject area, the less difficulties they would have with their subject terminology. However, it...
is not clear from the survey results how far it is a language problem and how far it is a problem of their subject studies. The degree of difficulties in reading certainly differs among learners of different proficiency. According to the qualitative data of the questionnaire, more than a quarter of the learners mentioned that they would like to have been grouped according to their subject areas in the pre-sessional course. In this way, they could have read more specialised texts in order to get familiar with the terminology of their future courses. They could have hold discussion on those texts closer to their subjects as well.

The problem of vocabulary is typical for foreign language learners. Although they have already reached a certain level of language proficiency in their foreign language, the exposure to the language is still not as much as it is to their first language. Gaining language proficiency is a slow process. It takes time for those foreign language learners to acquire a large stock of words to cope with academic reading. The fact is that most of the foreign language learners learned English as a language subject in schools or in tertiary institutions. The vocabulary they have learned is related to general meaning. When they pursue a further degree with English as the medium of instruction, they have to cope with unknown words and existing words yet with completely new meanings.

Learners stated that vocabulary was extremely difficult and annoying at the beginning of their academic study. The problem has brought a lot of stress and difficulties in their academic studies. It is not only a problem of vocabulary but also a problem of their subject studies, which requires the understanding of particular concepts in particular discourses.

*Learners' performance on tests testing different reading skills*

Test results (See Appendix II-III) showed that the overall students' performance on testing of global skills is 2.648 higher than that of testing of discrete skills. That might be attributed to many factors. One important controlling factor might be the choice of text. The content seemed to be easier for the students to handle than the language itself. A possible reason might be that all three texts are on general topics, e.g. population and rural development which are within the learners' schemata. As mentioned above, these learners were pursuing higher degrees. Thus we assumed that they were capable L1 readers. However, their language proficiency was not satisfactory enough even though they had taken certain entrance tests before they could be accepted by the university. At this stage, they seemed to be more confident in handling the content schemata of the text than the formal schemata of the text.

The result might also suggest that test items relating to large stretches of text (global items) are likely to be easier to handle than items relating to small stretches of text. This is exactly true of most of the foreign learners as by the time they started learning the foreign language, they were already adults. It is often suggested that testing of global skills is testing of cognitive and reasoning ability. Therefore, most of the learners would be able to handle to a
large extent the content unless their specific linguistic proficiency is too low, that is, below the threshold level. Or the content is completely beyond their knowledge. Other factors such as the application of culturally inappropriate schemata or a lack of content knowledge might cause readers to make false assumption and respond incorrectly as well. Yet that was not the case in this study.

**Textbook analysis of the relationship of reading tasks and skills**

It can be seen from Figure 4, 33% of all the tasks in the pre-sessional textbook are designed to train the skill of reading text or parts of text more slowly and careful to extract all the relevant information. That was about as many tasks as those tasks to train the skills of skimming and scanning put together. This showed that there might be a gap between what the material writers and teachers provide students with and what the students are really in need of. As can be seen from the above results, learners perceived skimming and selective reading as the most important part of their academic reading.

The skill of understanding unknown words was also practised in less than half of the reading tasks (15% of the tasks) than those of careful reading. Yet understanding unknown words was perceived by learners as the most difficult part of their academic reading. Therefore, the balance of skill training might be better shifted more toward the training of fast and selective reading such as skimming. Attention should also be paid to more specialised texts to help learners to get familiar with the terminology of their subject studies.

As mentioned above, total agreement was reached as to which skill is being practised through a given reading task by all four teachers on 47% of the reading tasks among the 103 reading tasks analysed. Among 21% of the reading tasks, agreement was reached by three teachers. Therefore, agreement was reached about 68% of the reading tasks analysed in the textbook. There appeared to be a general agreement upon which reading task was designed to practice which particular skills. From the teachers' point of view, these reading skills are separate, divisible and identifiable and can be taught through different kinds of reading tasks. Learners then can benefit from practising certain skills by doing relevant tasks.

It should be pointed out as well that reading tasks in the textbook are not necessarily carried out as they are designed. It is common that teachers find a particular task unsuitable for the learners to do either because it is too difficult or too easy for them or irrelevant to the classroom activities. This tends to be among the tasks for skimming and careful reading. One teacher mentioned during the analysis that

"We, the teachers should have the right to adjust reading tasks designed in the textbook according to our own teaching."
CONCLUSION

The importance of the identifiability of reading skills in teaching materials and test design in EAP context has been considered in this study. Synthesising all three sources of data, we could conclude that separate, divisible and identifiable reading skills exist from the point of teaching, learning and materials writing. It is not suggested that these sub-skills "exist" in any tangible way, but rather that they represent a useful construct with which teachers and test constructors may work.

Teachers and testers, and other people involved in EAP teaching for academic purposes would certainly need something concrete in the concept of reading skills to rely on where they could embark on syllabus design, teaching, material writing and test construction. Results from this study showed that separate skills did exist in learners' minds. However, teachers involved in this study were much more cautious in giving a definition of any particular skills related to certain reading tasks. They tended to suggest that different learners might use different skills to approach different tasks. The same was true of the teaching situation. However, general consensus (68%) was still reached as to which skill was being practised which task in the textbook analysis.

It was not that clear from the test results that these skills exist since the correlation between testing of global skills and specific linguistic skills was not high enough. What we know from the results is that 50% of the tests in this study tested overlapping reading skills. As is true in most testing situations, learners tend to refer to any skills and employ any available test taking strategies to achieve high scores. This might be different from their everyday academic reading. However, it was found out from the results that different learners did achieve quite different scores on testing of different skills. One small group of learners did quite well on global skills but not on linguistic items. For them, taking tests testing different reading skills might be very crucial. If they take a particular test testing only discrete skills as an entrance test into the university, they might be well rejected. Another 30% of the students got high marks on discrete skills yet not on global skills. Their performance on testing different skill has no relation at all. It might also suggest that learners' reading proficiency among reading skills does not develop neatly according to any perceivable order. Reading in this sense would not be unitary.

However, the first step in designing a reading comprehension test and a reading course in such EAP context should involve the construct we would like to test and teach. It then requires a reference not only to reading theories but to the needs analysis done from all possible sources. These sources should include opinions from the learners, language teachers and subject lecturers in the related academic areas. It then requires sampling to make it a priority that the skill specifications prepared at the design stage adequately reflect the domain of reading that would be required of learners in their academic studies and the domain that we should teach and test.
References:

Alderson, J.C. (1990). "Testing Reading Comprehension Skills: Getting Students to Talk about Taking a Reading Test (part Two)". Reading in a Foreign Language, 7 (1).


18


Appendix I  Reading Skills Questionnaire

Dear colleague,

We want to establish (1) what the most important reading skills for your course are and (2) the difficulties you still have in reading. To help us, please fill out this short questionnaire according to your own experience after the pre-sessional reading course last year. *All information will be treated in the strictest confidence*. Please send the questionnaire back through the internal mail in the envelope provided *as soon as possible*. Thank you very much for your help.

Your department ___________________________  Your course ___________________________

**Part I** Please think about the reading skills required in the course you study.

1. Please tick in the boxes below how important it was for you to perform each skill

   1= Very Important
   2= Important
   3= Not Important
   N= Not Sure

2. Please tick in the boxes below how difficult it was for you to perform each skill

   1= Very Difficult
   2= Difficult
   3= Not difficult
   N= Not Sure

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading skills</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>1. Skimming: reading a text <em>quickly</em> in order to <em>establish</em> a general idea of the content e.g. to determine what part, or whether part or whole, is relevant to an established purpose and should be read again more carefully</td>
<td></td>
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<tr>
<td>2. Scanning: looking through a text <em>quickly</em> in order to <em>locate</em> specific information e.g. to check a date, a figure in a graph or a key word in the text</td>
<td></td>
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<tr>
<td>3. Reading a text or parts of a text more <em>slowly</em> and <em>carefully</em> to <em>extract</em> all the relevant information e.g. to carry out a written assignment such as an essay, dissertation or examination</td>
<td></td>
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<td>4. Understanding unknown words in the text</td>
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<td>Please specify any other important reading skills you use.</td>
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<tr>
<td>5.</td>
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<td>6.</td>
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</tbody>
</table>

Please turn over the page.
Part II
Please answer the following questions according to your own experience.

1. Please describe the main problems you still have in your academic reading.

2. Do you think the pre-sessional reading course can be improved to prepare you better for your academic reading? Please tick. Yes  No
If Yes, please explain how.

Appendix II  Figure 2

Relationship between Testing of Part A and Part B
Appendix III

Relationship between Part A of TEEP Test and Gap Filling One

\[ \text{PartA} = 2.1199 + 0.5234 \times \text{gap-filling-one} \]

\[ R = 0.5743 \quad p < 0.01 \]

Relationship between Part A of TEEP Test and Gap Filling Two

\[ \text{PartA} = 2.5563 + 0.7426 \times \text{gap-filling-two} \]

\[ R = 0.7426 \quad p < 0.01 \]