A Study of the English Reading Strategies of Hungarian University Students with Implications for Reading Instruction in an Academic Context

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Abstract

The aim of this study is to provide a picture of the metacognitive awareness of reading strategies of a group of Hungarian university students majoring in English, with a view to offering suggestions for developing reading skills improvement programmes. Participants were 86 students in the first or second year of their studies, who completed the Survey of Reading Strategies of Hungarian College Students, which aims to reveal the type of reading strategies respondents report using when reading academic materials in English. The results of the study reveal that on the whole there is a fairly high awareness of all the strategies included in the survey, with a preference among the respondents for problem solving strategies, followed by global and support strategies. Not unexpectedly, the factors that correlate with strategy use awareness are gender, self-rated reading ability, and time spent on reading: females, students who rated themselves higher on the reading ability scale and those who reported spending 7-9 or more hours a week reading study-related materials showed significantly higher levels of strategy usage concerning one or more subscales of the instrument or overall strategy use. These findings confirm the gender effect and patterns of strategy use identified by studies carried out in a variety of contexts. However, when reading ability was measured by a different instrument, an objective reading test, about 30% of the respondents with a high metacognitive awareness and with correlating high self-rated reading ability proved to be poor readers. The paper also examines what the latter finding suggests for reading instruction.

Introduction

There is no overemphasizing the importance of proficient reading today. The ability to read efficiently is particularly important in educational contexts, but maybe most of all in post-

secondary education, where reading for study purposes, often in the L2, is exercised on a daily basis.

Hungarian university students majoring in English study all their subjects in English, which is probably a demanding task for many of them. This paper examines how a group of English majors cope with this task. Specifically, it highlights the reading strategies that the students under study report using while reading academic, rather than leisure-related texts in English. Reading strategies are defined here as "deliberate, conscious procedures used by readers to enhance text comprehension" (Sheorey & Mokhtari 2001:433), and their application is believed to contribute to efficient reading (cf. Auerbach & Paxton 1997: 240-241).

There is a considerable body of literature on the awareness of the reading process and reading strategy use of readers with a variety of proficiency levels, L1, cultural backgrounds, school contexts, etc. (for a review, see Barnett 1989, Grabe 1991, Auerbach & Paxton 1997). Apart from Sheorey & Szőke's findings (2003), however, we know virtually nothing about how Hungarians read, worse still, how they read in English in academic contexts.

As for L1 reading ability though, our understanding is less deficient - recent tests of secondary students from 41 countries have revealed that Hungarians perform rather poorly, reaching only the bottom of the moderate reading ability category (cf. Learning for Tomorrow's World – First Results from PISA 2003). Although no one-to-one correspondence between L1 and L2 reading ability has been identified, it seems reasonable to assume that L1 reading deficiencies at the secondary level hardly allow for proficient L2 reading at post-secondary levels. Since college and university students need to cope with a large amount of academic reading tasks, the importance of finding out about their reading strategy awareness with a view to providing improved L2 reading instruction cannot be questioned.

Theoretical background and objectives of the study

Recent accounts of the reading process emphasise that fluent, proficient reading is rapid, purposeful, motivated, interactive, comprehending and flexible, and that it develops gradually (Alderson 2000:149). Interactivity refers, among others, to the "interaction of many component skills potentially in simultaneous operation" (Grabe 1991:383). Maybe it is impossible to rank order the component skills (automatic recognition skills, vocabulary and structural knowledge, formal discourse structure knowledge, content/world knowledge, synthesis and evaluation skills/strategies, metacognitive knowledge and skills monitoring) that are proposed to make fluent reading (Grabe 1991:379). Yet metacognitive knowledge and skills are considered to be critically important components of skilled reading (Auerbach & Paxton 1997). Metacognitive knowledge is knowledge about cognition, including knowledge of language, which involves, in the context of reading, metacognitive skills activated to enhance comprehension (Grabe 1991:382). A number of studies have found a positive correlation between effective use of metacognitive skills and fluent reading, underlining the fact that metacognitive skills, e.g.: adjusting reading rate, skimming, previewing, monitoring cognition, as well as self-regulation strategies such as planning ahead, or being aware of and revising the strategies being used, are typical of good readers. Put another way, the main difference between skilled and unskilled readers is believed to lie in the ability of the former to "engage in deliberate activities that require planful thinking, flexible strategies and periodic self-monitoring" (Paris & Jacobs 1984, in Sheorey & Mokhtari 2001:433).

Research findings agree that in order to improve reading proficiency, and so to design reading skills development programmes in an informed manner, educators' understanding of their students' metacognitive knowledge about reading and reading strategies must be increased (cf. Sheorey & Mokhtari 2001:433). It is on this ground that the idea of the present paper evolved.

The objective of the study is to provide a picture of the metacognitive awareness of the reading process, or "perceptions about the reading strategies" (Barnett 1989:75) of a group of native Hungarian English majors when involved with the task of reading academic materials (textbooks, journal articles, class handouts, etc.) in English. The subject has been explored in the process of answering the following four questions:

1. What type and frequency of reading strategies do the students under study report applying while reading academic texts?
2. Is there a significant difference between the perceived strategy use of female and male students; that is, are females significantly more aware of their reading strategies than males?
3. Is there a relationship between reported strategy use and reading ability reflected in participants' self-ratings and reading test results?
4. Does time spent on reading academic materials promote strategic reading; that is, do students who spend more time reading develop into better readers?

It is hypothesized that the respondents, being university English majors, thus supposedly having attained in their secondary education a relatively high overall proficiency and well-developed reading ability in English, exhibit high metacognitive awareness of the strategies they use while reading academic materials. A second hypothesis, based partly on the literature (cf. Green & Oxford 1995, Nyikos 1990, Young & Oxford 1997, Sheorey & Szőke 2003) and partly on personal experiences and findings (Mónos 2004), is that female students report higher levels of strategy usage than males. A further hypothesis is that strategy use positively affects reading ability, that is, students who report higher strategy use are more proficient readers, which is reflected in their self ratings as well as reading test results. Finally, it is assumed that the more time readers spend on reading study-related materials, the more reading strategies they apply, consequently, the more proficient readers they become.

Method

Subjects

The participants of this study were 86 native Hungarians majoring in English at the Faculty of Humanities and Arts, University of Debrecen, Hungary. They were in the first or second year of their studies, a five-year programme, but prior to them taking the English Yardstick Exam (see in more detail under the Instrument section), a skills-based proficiency exam compulsory for all the students, taken normally at the end of the first year. Of the 86 students, 59 (68.6%) were female, and 27 (31,4%) were male. As regards age, they were between 18-28, but the majority, 70 students, were between 18-20 years of age. In a background questionnaire attached to the main research instrument (see following section), they were asked to describe their overall proficiency and reading ability in English on a 1-6 scale. 1 indicated low proficiency / a poor reader, while 6 indicated high proficiency / an excellent reader, respectively. When one regards 1-2 to indicate poor, 3-4 to indicate moderate, and 5-6 to indicate excellent self-rated proficiency / reading ability, 1 (1,1%) student ended up in the poor, 67 (77,9%) in the moderate, and 18 (20,9%) in the excellent overall proficiency group. As for reading ability in English, 3 (3.5%) students regarded themselves as poor, 60 (69,7%) as moderate, and 23 (26,8%) as excellent readers. Put another way, the vast majority of the respondents regard themselves to be in the medium category for both overall and reading proficiency, while about a fifth or a quarter think of themselves as having high overall proficiency / excellent reading ability.

Participants were also asked to estimate the number of hours they spend per week during the school year (September to June) on reading study-related academic materials (such as textbooks, journal articles, class notes, handouts, etc.). 9 students (10.5%) estimated this amount of time to be between 1-3 hours per week; another 22 students (25.6%) indicated this to be in the range of 4-6 hours; 32 students (37.2%) indicated a time between 7-9 hours, and

23 (26.7%) respondents said they spent 10 or more hours on reading academic texts. Clearly, the majority of the students under study (64%) spend 7 or more hours a week reading study-related materials.

Instruments

Data on students' awareness and use of reading strategies while reading academic materials was collected through the *Survey of Reading Strategies of Hungarian College Students* (SORS-HU), an instrument developed specifically for the Hungarian context from Mokhtari & Sheorey's Survey of Reading Strategies (SORS) (2002:3-4). According to the authors, the SORS is "intended to measure the type and frequency of reading strategies that adolescent and adult ESL students perceive they use while reading academic materials in English" (2002:4). It consists of 30 items, each accompanied with a 6-point, Likert-type scale. As 1 means 'I never do this', and 6 means 'I always do this', the higher the number that respondents indicate applies to them, the more frequent the use of the particular strategy is reflected. The 30 items listed in the SORS belong to 3 categories, or subscales, which are: global, problem solving, and support strategies. *Global reading strategies* (13 items) are "intentional, carefully planned techniques" (Mokhtari & Sheorey 2002:4) which readers apply in order to monitor or manage their reading. Examples are: using pre-existing knowledge about the subject to aid text comprehension; taking an overall look at the text to see what it is about before reading in detail. *Problem solving strategies* (8 items) are used when readers "work directly with texts" (Mokhtari & Sheorey 2002:4) and comprehension problems occur. In order to solve these, strategies such as adjusting the speed of reading to text difficulty, picturing/visualising information to aid comprehension, etc. may help. *Support strategies* (9 items) are "basic support mechanisms intended to aid the reader in comprehending the text" (Mokhtari & Sheorey 2002:4), for example: translating from English into Hungarian while reading; highlighting information in text; paraphrasing ideas; etc.

As pointed out above, information concerning respondents' age, gender, self-rated overall proficiency in English, self-rated reading ability in English, and approximate hours per week spent on reading study-related materials during the academic year was collected through a background questionnaire, which formed part of the SORS-HU.

In order to see how perceived reading strategy use and reading ability correlate, respondents' reading ability was measured through a reading comprehension test, as well. In the five-year English degree programme of the University of Debrecen, students need to sit for a proficiency test, the English Yardstick Exam (EYE), administered at the end of the first year. The EYE, supposedly a test on level C1 in terms of the Common European Framework of Reference for Languages (Council of Europe 2002), consists of five components: the four major skills and a summary writing paper. Its aim is to measure whether the test-takers are competent enough in general and academic English to pursue university studies in that language. The reading paper usually consists of two or three texts, ranging from 300 to 500 words in length each, and altogether 15-20 test items (detailed specifications at http://ieas.arts.unideb.hu/eye.htm).

The reading paper in the 2004 EYE consisted of two parts: a multiple choice test, aiming to measure comprehension of detailed information; and a gapped text, where the main objective was to test students' knowledge of sentence structure and text organisation, and understanding of reference and discourse markers. Students were given altogether 30 minutes for the two texts.

In the Hungarian educational system, university level included, there is a 1-5 grading scheme, where 1 stands for failure, while a 5 is accorded to excellent performance. As the pass mark for reading in the 2004 EYE was below 50%, the results up to 45% of the respondents of the current study were regarded as poor, between 46-75% as medium, and above 76% as good achievement. In this framework, 18 (30%) participants proved to be poor

readers; 27 (45%) ended up in the medium, and another 15 (25%) in the good reader category. Unfortunately, data on reading test results was only available from 60 participants. This is either because some of them failed to indicate their Neptune code (see below) on the survey sheet, thus making the matching of survey and EYE test paper results impossible, or because they were not allowed to sit for the EYE, not having completed prerequisite courses. Still, it is remarkable that 30% of the participants are in the poor reader category in this light; while as regards self-rated reading ability (see previous section), a mere 3,5% fell in this category.

Procedures for collecting and analysing data

All the data on respondents' perceived reading strategy use and background information were collected in the fall term of 2003 and in the spring of 2004. The SORS-HU was administered at the beginning of reading skills development classes for first and second year students by the researcher or individual class instructors. The instructors who helped in administering the surveys and the participating students were informed about the purpose of the study. Respondents were asked to fill in the survey carefully and honestly, bearing in mind that there were no right or wrong answers. As the data on strategy use and the EYE reading test results had to be matched, students were asked to put their Neptune code on the answer sheet. (In higher education institutions in Hungary the software called Neptune is used for administering study matters, identification of students, etc.) Collecting data in this manner took up about 15 minutes of each class period. Reading test results became available in June 2004, after all the students concerned had sat for the EYE.

All the data were entered into SPSS 12.0 for Windows for statistical analyses, where descriptive statistical procedures and further calculations were carried out. To see if there was significant difference between the reported strategy use of participants by gender, an independent samples *t* test was applied. Analyses of variance (ANOVA) were run to decide if reported strategy use had a significant effect on reading test results and self-rated reading

ability; if there was a significant correlation between time spent on reading study-related materials and reading strategy use; and if time spent on reading study-related materials significantly affected self-rated reading ability or reading test results. To determine significance throughout the study, the standard $p<.05$ was used. For the reading strategy use as reported in the SORS-HU, three categories have been identified: low (mean of 2.49 or below), medium (means between 2.5-4.00), and high (mean of 4.1 or higher). In specifying usage levels, Oxford's suggestions for the Strategy Inventory for Language Learning (in Oxford & Burry-Stock 1995:12) and personal communication with Ravi Sheorey were considered. These levels provided a convenient benchmark to measure the strategies or categories of strategies concerned.

Results

The results obtained from the reading strategy survey are presented in the tables below.

Table 1 Reported use of individual reading strategies

Name	*Strategy*	*M*	*S.D.*
GLOB1	Setting a purpose for reading	4.65	1.307
GLOB2	Using prior knowledge	4.55	1.243
GLOB3	Previewing text before reading in detail	3.85	1.509
GLOB4	Evaluating how text content fits reading purpose	3.49	1.365
GLOB5	Looking through text before reading to see length and organisation	4.28	1.554
GLOB6	**Skipping parts of text thought unimportant**	**2.21**	1.189
GLOB7	Using text features, e.g.: tables, figures for better understanding	3.42	1.598
GLOB8	Using word clues, e.g. "first"; "but" for better understanding	2.73	1.358
GLOB9	Using typographical aids, e.g.: bold face**,** italics	4.47	1.234
GLOB10	Evaluating text read	5.01	1.006
GLOB11	Stopping and thinking when ideas/information in text does not make sense.	4.44	1.164
GLOB12	Checking if one's guesses about text are right or wrong	2.98	1.265
GLOB13	**Looking at the title before reading to get a hint about text content**	**5.38**	1.108
SUP1	Taking notes while reading	3.09	1.562
SUP2	Reading aloud when text becomes difficult	2.62	1.520
SUP3	Thinking about main ideas in text for better understanding	4.19	1.112
SUP4	Translating from English into Hungarian	2.61	1.448
SUP5	Underlining, highlighting information in text	3.93	1.665
SUP6	Using reference materials, e.g.: dictionaries	4.08	1.285
SUP7	Paraphrasing for better understanding	3.45	1.411
SUP8	**Going back and forth in text**	**4.24**	1.105
SUP9	**Setting oneself questions about text and trying to answer them**	**2.50**	1.156
PROB1	Reading slowly but carefully for better understanding	4.47	1.175
PROB2	Trying to stay focussed on text	4.76	1.098
PROB3	Adjusting reading speed to difficulty level of text	4.74	1.200
PROB4	Reading carefully when text becomes difficult	5.09	1.013

PROB5	**Pausing and thinking about text read**	**3.47**	1.224
PROB6	Visualizing information to help remember text	3.95	1.527
PROB7	**Re-reading for better understanding**	**5.37**	0.855
PROB8	Guessing meaning of unknown words or phrases	4.56	1.144
GRS	Global Reading Strategies	3.95	0.59
SRS	Support Reading Strategies	3.41	0.75
PRS	Problem Solving Reading Strategies	4.55	0.60
ORS	Overall Reading Strategies	3.97	0.53

Table 1 shows the perceived reading strategy use of the respondents while reading study-related materials, in terms of individual strategies, as well as strategy groups (that is, global [GLOB], support [SUP], and problem solving [PROB] strategies). As one can see, the means of the individual items range from the high 5.38 (GLOB13) to the low 2.21 (GLOB6) mean (in bold). There are 16 individual items, that is, more than half of the 30, in the high usage category (mean of 4.1 or above). For another 13 items, medium usage (mean between 2.50-4.00) was reported, and just one item fell in the low usage (mean of 2.49 or below) category. As regards the subscales, item means for global strategies range from 5.38 to 2.21. The range for support strategies is between 4.24 and 2.50, while for problem solving strategies this is between 5.37 and 3.47 (in bold).

Table 2 Reading strategies used most and least often by respondents

Name	*Strategy most often used*	*Mean*
GLOB13	Looking at the title before reading to get a hint about text content	5.38
PROB7	Re-reading for better understanding	5.37
PROB4	Reading carefully when text becomes difficult	5.09
GLOB10	Evaluating text read	5.01
PROB2	Trying to stay focussed on text	4.76
Name	*Strategy least often used*	*Mean*
GLOB8	Using word clues, e.g. “first”; “but” for better understanding	2.73

SUP2	Reading aloud when text becomes difficult	2.62
SUP4	Translating from English into Hungarian	2.61
SUP9	Setting oneself questions about text and trying to answer them	2.50
GLOB6	Skipping parts of text thought unimportant	2.21

Table 2 shows the 5 most often and 5 least often used strategies, as reported by the respondents. Interestingly, global reading strategies appear among both the most and least often used items. While there are three problem solving strategies in the most often used category, there are none among the least often used ones, where one can find three support strategies besides two global strategies.

A further analysis of the data according to the three subscales of the survey reveal a range of uses from moderate to high.

Table 3 Reported use of strategy groups and overall use

Name	*N*	*Minimum*	*Maximum*	*M*	*S.D.*
Global Reading Strategies	86	2.31	5.31	3.95	0.59
Support Reading Strategies	86	1.89	4.78	3.41	0.75
Problem Solving Reading Strategies	86	3.25	5.88	**4.55**	0.60
Overall Reading Strategies	86	2.48	4.96	3.97	0.53

Table 3 shows that means for global and support strategies, as well as the overall mean, fall in the medium usage category, whereas the mean of problem solving strategies is high (in bold).

Table 4 Frequencies of reported strategy use

Use	*Global RS*	*Support RS*	*Problem Solving RS*	*Overall RS*
High	42 (48.8%)	19 (22.1%)	70 (81.4%)	37 (43.0%)
Moderate	43 (50.0%)	54 (62.8%)	16 (18.6%)	48 (55.8%)
Low	1 (1.2%)	13 (15.1%)	-	1 (1.2%)
N total	86 (100%)	86 (100%)	86 (100%)	86 (100%)

The frequencies of high, moderate and low use of strategy groups and overall use across the sample can be seen in Table 4. It clearly reveals that there is an overwhelming preference for problem solving strategies, followed by global and support strategies, where one can find the largest amount of low usage.

To find out whether gender significantly affected reported strategy use, the number and percentage of female and male students falling into the categories of high, moderate or low usage in terms of the subscales and overall strategy use was examined. The results in Table 5 indicate a tendency similar to the one we saw for reported strategy use across the sample (Table 4). That is, there is a preference with both sexes for problem solving strategies, followed by global, and then support strategies, where again the largest amount of low usage is reported.

Table 5 Frequencies of reported strategy use by female and male respondents

Use	*Global RS*		*Support RS*		*Problem Solving RS*		*Overall RS*	
	Female	Male	Female	Male	Female	Male	Female	Male
High	30 (51%)	12 (44%)	16 (27%)	3 (12%)	51 (86%)	19 (70%)	30 (51%)	7 (26%)
Moderate	29 (49%)	14 (52%)	38 (64%)	16 (59%)	8 (14%)	8 (30%)	29 (49%)	19 (70%)
Low	-	1 (4%)	5 (9%)	8 (29%)	-	-	-	1 (4%)
N	59	27	59	27	59	27	59	27

However, differences can also be detected. As the findings appearing in Table 6 show, the mean of females is higher than that of males in all the categories examined, with the difference being significant ($p<.05$) in the use of support and problem solving reading strategies, and in overall strategy use (in bold).

Table 6 Differences in reported reading strategy use by gender

Name	*Gender*	*N*	*M*	*S.D.*	*Sig.*
GLOB	F	59	4.03	0.571	.090
	M	27	3.78	0.616	
SUP	F	59	3.55	0.708	**.012**
	M	27	3.10	0.759	
PROB	F	59	4.65	0.580	**.023**
	M	27	4.33	0.611	
OVERALL	F	59	4.08	0.504	**.006**
	M	27	3.74	0.546	

As an answer to question 3, it was hypothesized that awareness of reading strategy use affected reading ability, in that students who report higher strategy use perform better on the EYE reading test. Moreover, they also assess themselves to be more proficient readers. Interestingly, no significant correlation was found between reported strategy use and reading

test result. What is more, while the vast majority of the students fell in the moderate or high strategy usage category in all respects, 30% still performed rather poorly on the EYE test. As for the correlation between reported strategy use and self-rated reading proficiency, several significant effects have been identified.

Table 7 Differences in reported reading strategy use by self-rated reading proficiency

Strategy use	*Reading proficiency*	*N*	*M*	*S.D.*	*Sig.*
GLOB	Poor	3	**3.04**	0.325	**.016**
	Medium	60	**3.95**	0.617	
	Excellent	23	**4.08**	0.444	
	Total	*86*			
SUP	Poor	3	2.88	0.777	.160
	Medium	60	3.50	0.743	
	Excellent	23	3.23	0.738	
	Total	*86*		.	
PROB	Poor	3	4.16	0.260	.527
	Medium	60	4.57	0.601	
	Excellent	23	4.55	0.644	
	Total	*86*			
OVERALL	Poor	3	3.36	0.453	.125
	Medium	60	4.01	0.554	
	Excellent	23	3.95	0.470	
	Total	*86*			

The results in Table 7 show that in all categories, poor readers have the lowest means. The highest means are scored by the moderate readers in the categories of support, problem solving and overall strategy use, and by excellent readers in global strategy use, though the means of medium and excellent readers are very close indeed in all categories. The differences are significant in the use of global reading strategies only, though (in bold). In this category, both excellent and medium ability readers report significantly higher usage than their poor counterparts, according to the post-hoc Tukey test.

Whether time spent on reading study-related materials significantly affected self-rated reading ability, reading test results and reading strategy use (question 4) was also examined. It was found that respondents' reading proficiency or performance on the EYE test were not at

all the function of the amount of time spent on reading academic material. However, reading time did significantly affect strategy use, in more than one category.

Table 8 Differences in reported reading strategy use by reading time

Strategy use	*Reading time*	*N*	*M*	*S.D.*	*Sig.*
GLOB	1-3 hrs	9	3.49	0.715	**.018**
	4-6 hrs	22	3.84	0.405	
	7-9 hrs	32	**4.15**	0.657	
	10 or more hrs	23	3.96	0.501	
	Total	*86*			
SUP	1-3 hrs	9	3.35	1.072	.603
	4-6 hrs	22	3.26	0.758	
	7-9 hrs	32	**3.54**	0.675	
	10 or more hrs	23	3.38	0.718	
	Total	*86*			
PROB	1-3 hrs	9	4.04	0.736	**.002**
	4-6 hrs	22	4.32	0.446	
	7-9 hrs	32	**4.75**	0.599	
	10 or more hrs	23	4.68	0.535	
	Total	*86*			
OVERALL	1-3 hrs	9	3.63	0.759	**.025**
	4-6 hrs	22	3.81	0.417	
	7-9 hrs	32	**4.15**	0.526	
	10 or more hrs	23	4.01	0.482	
	Total	*86*			

As is clear from Table 8, in all the subscales it is students whose reading time is between 7-9 hours that have the highest means (in bold). The difference is significant in global, problem solving and overall strategy usage (in bold), in that respondents in the 7-9 hours/week reading time category report significantly higher use than those in the 1-3 hours/week bracket. In terms of problem solving strategies, the difference is significant even between the students reporting 7-9 and those reporting 4-6 hours/week reading academic texts in English.

Discussion

The data collected through the SORS-HU answers question 1 of the current study concerning the type and frequency of reading strategies that university students majoring in English

report using while coping with academic texts. As pointed out above, with the exception of Sheorey & Szőke's study (2003), hardly any research has been conducted into reading strategy awareness in the Hungarian context before. The college students that Sheorey & Szőke studied, enrolled in the Faculties of Engineering and Teacher training, reported using reading strategies with moderate frequency, and particularly favoured problem solving strategies.

Not unexpectedly, the participants of the current study, all English majors and in the earliest phase of their university career reported high or moderate usage concerning the subscales of the instrument as well as overall use. Of the 30 items included in the survey, only one falls in the low usage category, which is *skipping parts of the text thought unimportant.* The most important strategies for the respondents are global strategies, that is, the ones that they intentionally apply in order to monitor or manage their reading; and problem solving strategies, which are used when readers encounter comprehension problems. This reflects a high degree of awareness by the respondents while reading in English for study purposes, as well as the availability of a nice repertoire of solutions to comprehension problems which are bound to occur. The fact that support strategies as a category and individual items (SUP2, 4, 9) are among the least often used ones reveals that these students do not value basic support mechanisms that aid comprehension to the extent that might be desirable. At the same time, the low values attached to the support strategies of *reading aloud, translating from English into Hungarian* and *setting oneself questions about the text* probably show that they would rather avoid using time consuming strategies; furthermore, during their secondary education they were probably warned against reading aloud and translating as answers to comprehension problems. The only item with a low mean, s*kipping parts of text thought unimportant*, though seemingly useful and easy to apply, is likely to be unused because of the nature of reading in this particular context. When students read academic texts, they probably

think that all the text is important, or concentrate on the text itself instead of evaluating whether various parts of it are important or not.

The usage patterns among students reveal (Table 4) that the majority are high or moderate users, in all strategy categories. This indicates a high degree of awareness of the importance of applying mechanisms that aid reading comprehension. This probably derives, on the one hand, from their earlier studies, and from the fact that they are not simply ESL learners but English majors, on the other. Students majoring in foreign languages are supposed to develop a high awareness of language, language learning and of the means that make it easier, that is, strategies.

As far as the gender pattern is concerned (question 2), there is nothing unexpected about the findings. This study provides further support for the gender pattern identified by research in a wide variety of contexts (Oxford et al., 1988, Nyikos1990, Green & Oxford 1995, Young & Oxford 1997, Sheorey & Szőke 2003, Mónos 2004), which show that females report higher levels of strategy application than males. The female students under study here report higher usage than males in all categories, with the difference being significant in three (Tables 5, 6). Besides the fact that females usually seem to be more conscious strategy users, in the Hungarian context it also means, in my interpretation, that they are more conscientious, having a strong desire to fulfil expectations at the same time. Besides really using more strategies, they probably report using a lot of strategies because they think this is what an authority, the school – embodied by the researcher in the present case - expects them to do. This "good girl" phenomenon appears in the data on the time spent on reading study-related materials, as well. While 60% of the male respondents say they spend 1-3, or 4-6 hours a week reading study-related texts, and only 40% claim to spend 7-9, or 10 or more hours, the proportion is 25% (1-3, 4-6 hours) to 75% (7-9, 10 or more hours) in the case of females. This

difference is striking, and provides further support for the claim that girls tend to give answers that they think will please the authorities.

As for the relationship between perceived strategy use and reading ability as reflected in self-ratings and reading test results (question 3), it has been found that strategy use does positively affect reading ability: the students who rated themselves to be moderate or excellent readers reported higher strategy usage levels (Table 7). This finding meets expectations and provides support for earlier findings (Alderson 1984; Carrell, Pharis & Liberto 1989, Sheorey & Mokhtari 2001) on the positive relationship between strategic reading and improved reading comprehension. However, no correlation was found between strategic reading and performance on the EYE reading test, where 30% of the students proved to be poor readers. It is to be noted at this point that the reading test score was only available for 60 students, which may have affected the statistical analysis. Another point to note is the considerable difference between the variables: self-rated ability vs. test result, the former being a subjective, the latter an objective one. Furthermore, even students who regard themselves as moderate or high ability readers tend to perform poorly in a stressful testing situation. The reading test, supposedly on level C1 by Council of Europe standards, was probably too difficult in lexical and structural terms for a lot of the students who had just finished secondary school, had limited test-taking experience, and also found the available time, 30 minutes, insufficient for the tasks. The poor performance of a number of students on this test, in my view, has wider implications for test design, testing and language development practices than reading instruction.

Finally, it remains to reflect on the finding concerning the relationship between time spent on reading academic materials and reading efficiency (question 4). Though students who spend a lot of time reading did not at the same time rate themselves as more proficient readers or performed better on the EYE test, it was no surprise to find that the more time is

spent on reading academic texts, the significantly higher levels of strategy use is reported (Table 8). This finding confirms the view that skilled reading can be developed through a lot of reading; that is, the more someone reads, the more strategic, consequently, a better reader he/she becomes.

Summary and Conclusions

The current study shows a group of Hungarian students with a high metacognitive awareness of their reading processes when involved with the task of reading academic materials in English. This is no surprise, as they are students of English, an L2, who are normally more aware of the features of language, language learning and language use. Similar to other Hungarian academic contexts (Sheorey & Szőke 203), there is a preference for problem solving strategies, followed by global and support strategies. Not unexpectedly, the factors that significantly correlate with strategy use awareness are gender, self-rated reading ability and time spent on reading. To the puzzle of why students with a high metacognitive awareness and with correlating high reading ability prove to be poor readers when investigated by an objective instrument, the EYE test, several probable answers suggest themselves. One is that reported strategy use does not equal actual use, that is, respondents *believe* they use strategies or *report* using strategies, because they think this is the way to please the researcher. This may apply particularly to Hungarian female students, as discussed above. Another answer is that high strategy use in itself is not sufficient for fluent reading; strategies must be chosen appropriately to the task and to the needs of the reader, and+ in a concerted fashion (cf. Oxford 1990). The poor performance on the EYE test of a high percentage of the respondents who report to be strategic readers at the same time underlines the importance of other components that contribute to fluent reading: automatic recognition skills, and vocabulary and structural knowledge, in addition to highlighting the intricate relationship between linguistic proficiency, strategic reading, and reading ability. The students

who performed poorly on the EYE test are likely to have done so because of their deficient vocabulary and structural knowledge. This made the activation of their automatic recognition skills hard if not impossible, and the use of problem solving strategies, such as guessing meaning from context, time-consuming, thus ineffective.

What do the findings suggest for instruction in our academic context? According to the data collected through the SORS-HU, the respondents arrive at college level with a high metacognitive awareness. Does this suggest that we should lay emphasis mainly on developing their language proficiency, in order to compensate for deficiencies in vocabulary, structural and world knowledge? On the basis of the current findings and the literature, a possible conclusion is that a fair balance should be created in skills development programmes between strategic and linguistic training. Teachers in charge of developing the reading skills should 1) assess students' awareness of strategy use (for example, by using an instrument such as the SORS-HU); 2) raise awareness of the importance of strategic reading; 3) raise awareness of the array of strategies available to aid reading comprehension; and then 4) provide strategy training integrated with normal language work (to boost linguistic proficiency at the same time). Thereby students could be taught how to choose and apply strategies appropriate to their reading purpose, styles and personalities, in a concerted manner. In this way awareness of reading strategies and *perceived use* could be turned into *actual use.* Entwined with enhanced knowledge of language, this would result in more proficient reading and better performance on reading tests.

Finally, the finding about how time spent on reading affects reading efficiency underlines what we have known before, that students learn to read best by reading. This implies that a lot of reading assignments must be set for in- and out-class-work. By this means students' automatic recognition and comprehension skills develop; while their world, vocabulary and structural knowledge stores are also expanded, which enhances linguistic

proficiency. This approach promises the linguistically advanced, strategically aware, skilful readers, desirable in an academic context.

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