



## Effect of Explicit Language Learning Strategy Instruction on Language-test and Self-assessment Scores

Violeta Jurkovič

Faculty of Maritime Studies and Transport, University of Ljubljana, Slovenia

Pot pomorščakov 4, 6320 Portorož, Slovenia

Tel: 386-31-742-342 E-mail: violeta.jurkovic@guest.arnes.si

### Abstract

The present article reports on the findings of a study that explored the effect of explicit language learning strategy instruction on the development of English as a foreign language within a higher education setting in mixed language ability groups. The research results indicate that explicit language learning strategy instruction that aimed at enhancing language progress in groups of students that were heterogeneous in terms of initial language ability did not have any statistically significant effect on the development of language knowledge. These results indicate that under certain circumstances (limited course time and heterogeneous language competence levels within groups in particular) the organization of strategy training in the form of a separate module or implicit training in the use of language learning strategies seem to be more appropriate.

**Keywords:** Explicit language learning strategy instruction, English as a foreign language, Higher education, Mixed ability groups, Language competence

### 1. Introduction

In Slovenia students enter higher education after having learnt English as a foreign language in most cases for eight years. Despite language learning in the formal school setting and opportunities for the acquisition of English outside the language classroom, before entering higher education many students fail to reach satisfactory levels of language competence that would allow them to upgrade their knowledge of general as well as discipline-specific English. In addition, needs analysis conducted at our faculty (Jurkovič, 2002) has shown that in their probable future careers our graduates will need a high level of English language competence and also that language learning strategy use among students at our faculty ranges from low to medium. Many students do not experience difficulties in coping with language course requirements only but also with discipline-specific course content, which is shown by the extremely high drop-out rate.

In these circumstances we should look for classroom interventions that might allow less successful learners to catch up with their peers (Čeh, 2007) and provide students that have previously acquired a high level of English language competence with opportunities to explore their learning processes and become (more) successful lifelong learners. A possible classroom intervention aiming at these objectives is the explicit introduction of learning strategies into the teaching that rests upon the premise that language learning in a higher education setting will become more efficient if supported with language learning strategies (Jurkovič, 2007).

#### *1.1 Theoretical framework*

Studies in language learning strategies started more than three decades ago when the idea of successful language learners was put forward by Rubin (1975) and Stern (1975). Since then a multitude of definitions of language learning strategies has been developed. In a revision of the theoretical framework in this field, Macaro (2006) suggests that learning strategies should be described in terms of their essential features, which are their origins in working memory, conscious mental activity that learners employ to pursue a goal in a given learning situation, and transferability.

A series of different taxonomies of language learning strategies has also been produced. Some refer to learning strategies across all language skills (see Oxford 1990; Chamot & O'Malley, 1994) while others are limited to a single language skill or element, for example vocabulary (Schmitt, 1997). The decision which taxonomy to choose usually is subjective and dependent on a number of factors, for instance comparability of study results based on a measuring instrument (for example the Strategy Inventory for Language Learning, Oxford, 1990) and its reliability and validity. Hence, the strategies that were explicitly introduced into the teaching process were selected from Oxford's (1990) division into direct (memory, cognitive, and compensation) and indirect (metacognitive, affective, and social) strategies.

In turn, based on different taxonomies a variety of strategy instruction models have also been proposed (Chamot & O'Malley, 1994; Cohen, 1998; Grenfell & Harris, 1999). Despite differences that distinguish one instruction model

from another, they share a number of features (Harris, 2003; Chamot, 2004). As Chamot (2008) points out, all current strategy instruction models focus on the development of students' knowledge about their learning processes and encourage them to adopt strategies that will make their learning more efficient. According to Cohen et al. (1996), language learning strategy instruction has two components: regular class work and explicit training in learning strategies. In fact, research studies have shown that effective language learning strategy instruction should be explicit and integrated into regular class work activities (Chamot, 2004) although we should be aware that implicit instruction can also be powerful (Chamot, 2008).

The strategy instruction model used in the present research study was the Cognitive Academic Language Learning Approach or CALLA (Chamot & O'Malley, 1994). The main reason for the selection of this model was that it includes three components, which are study-discipline content (inherent to the teaching and learning of languages for specific purposes, which is – in addition to general English – one of the learning objectives of the language course at our faculty), academic language skills (which means that it is appropriate for higher education settings) and explicit scaffolded instruction in language learning strategies (Chamot & O'Malley, 1994).

The CALLA model is based on the cognitive theory of learning, which distinguishes between three types of functions in memory: long-term memory, short-term memory, and working memory. In long-term memory declarative (in memory frameworks) and procedural (as production systems) knowledge is stored, in short-term memory we only keep information for a few moments while information is manipulated in working memory (Anderson, 1985). Procedural and declarative knowledge in long-term memory is modified and upgraded based on information that is processed and manipulated in working memory. As mentioned earlier, one of the essential features of learning strategies is their origins in working memory (Macaro, 2006). Learners mostly do not have control over processes in long-term memory with which, however, working memory interacts. Foreign language learning “is brought about, in long-term memory, via strategic behaviour in working memory, through the development of declarative and procedural knowledge.” (Macaro, 2006, p. 332) Therefore, to understand learning strategies and language learning we need to understand what declarative knowledge and procedural knowledge in particular consist of and how they are stored and learned. In addition, the role of metacognitive knowledge in successfully learning and applying learning strategies is equally important.

Numerous studies have shown positive effects of language learning strategy instruction on language performance (Cohen et al., 1996; Lawson & Hogben, 1998; Kusiak, 2001; Rasekh & Ranjbary, 2003; Atay & Ozbulgan, 2007; Lau & Chan, 2007; Graham & Macaro, 2008). Nevertheless, several studies that have examined the effect of strategy training on language performance have shown inconclusive results or revealed that strategy training had no effect on language performance (O'Malley, 1987; Oxford et al., 1990; Rossiter, 2003). In addition, most of these studies have focused on the effect of training in the use of one strategy or one group of strategies on a single language skill or element (e.g., Kusiak (2001); Rossiter (2003); Lau & Chan (2007); Graham & Macaro (2008)). Moreover, several studies focused on strategy training in relation to vocabulary learning and retention (Lawson & Hogben, 1998; Rasekh & Ranjbary, 2003; Atay & Ozbulgan, 2007). Most importantly for this study, none of these studies reports results of strategy instruction in mixed language ability groups. In studies where the language competence level of participants is stated, it is described loosely (e.g., intermediate, lower intermediate, poor), which does not provide accurate data. Nevertheless, we can assume that language learning strategy instruction was conducted in relatively homogeneous language groups in terms of initial language ability.

Therefore, this article addresses the following question: “Does explicit language learning strategy instruction across all strategy groups contribute to better language-test and self-assessment scores in English as a foreign language in a higher education setting in mixed language ability groups?”

## **2. Method**

### *2.1 Setting*

The Faculty of Maritime Studies and Transport is a member of the University of Ljubljana, Slovenia. English is the only language taught at the faculty. The English course covered ninety hours organized in thirty three-hour weekly sessions in the first year of studies and ninety hours in the second year (unfortunately, after the full implementation of the higher education reform the number of hours will be reduced to a total of 120). The learning objectives of the language course in the first year of studies, which the present study is related to, included the development of general English in addition to language specific to the fields of traffic technology and transport logistics.

### *2.2 Participants*

The sample consisted of seventy-seven full-time first year students, aged between 18 and 24, attending classes of English as a foreign language for students of traffic technology and transport logistics from October, 2007, through May, 2008. The average age of the participants at the beginning of the language course was 19.94. Twenty-nine participants were female and forty-eight participants were male.

Twenty-two participants in the study were enrolled in the four-year programme of transport logistics, twenty-one participants in the four-year programme of traffic technology, and thirty-four participants in the three-year programme of traffic technology. While the number of students in both four-year study programme groups represented one hundred percent of the enrolled population, thirty-four participants in the three-year programme represented approximately one third of the enrolled population.

One of the four-year groups (transport logistics) was randomly assigned to make part of the treatment group together with the three-year traffic technology group. Therefore, the treatment group (group A) consisted of the three-year traffic technology group and the four-year transport logistics group (a total of fifty-six students). The contrast group (group B) consisted of the four-year traffic technology group (a total of twenty-one students).

It needs to be emphasized that even though the participants were enrolled in different programmes of study, for the purpose of this study the content and process of the English course were the same for all. No other courses at our faculty use English as the medium of instruction, which means that students were not exposed to any additional English input in the formal instructional setting and the fact that students attended different study programmes can be considered as having no effect on the results of this study.

A background questionnaire was used to determine differences and similarities between the treatment and contrast groups in relation to the following variables: age of participants, type of secondary school they had completed, secondary school cumulative grade point average, and secondary school English language grade. T-tests indicated no significant differences on any of these characteristics between groups.

One teacher of English as a foreign language participated in this study. She is a native speaker of the Slovene language. She has fifteen years of teaching experience at secondary school and higher education levels as well as with general and discipline-specific English language courses for adults. She has a PhD in language teaching methodology awarded by the Faculty of Arts of the University of Ljubljana, Slovenia.

### 2.3 Procedure

*Routes to Traffic English* (Jurkovič & Harsch, 2004) was the coursebook used in both groups. This coursebook represents core study material for first-year students of traffic technology and transport logistics at our faculty. It includes tasks aiming at the development of all general language skills as well as discipline-specific vocabulary and skills. The language level of most tasks in the coursebook is set at level B1/B2 of the Common European Framework of Reference (CEFR; Council of Europe, 2001). Additional handouts with authentic texts focusing on contemporary developments in the fields of traffic technology and transport logistics were also used.

In addition to usual language training the treatment group received explicit training in language learning strategies following the CALLA model whereas in the contrast group language learning strategies were implicitly embedded in instructions to language tasks but not explicitly discussed (see Figure 1). The explicit instruction of language learning strategies continued throughout the instructional period from October, 2007, to May, 2008. Language activities in the treatment group were interrupted twice to three times per session for approximately five to ten minutes to discuss the relevant strategies or clusters that were incorporated into the regular teaching process. The total time dedicated to scaffolded explicit strategy instruction can be estimated at approximately fifteen to twenty minutes per session (a total of approximately five hours or six percent of total course time). Therefore, the key difference between the teaching process in the contrast and treatment groups was that the treatment group was systematically and explicitly introduced to language learning strategies.

The training model focused on cognitive strategies (aiming to enhance language comprehension and production), metacognitive strategies (aiming to inform students on strategies that they can use to coordinate, regulate and evaluate their learning process), and memory strategies (aiming to facilitate vocabulary retention and recall). Using instructions for students to highlight differences in instruction in the treatment and contrast groups, the selected sample flow of explicit instruction in language learning strategies presents a strategy cluster consisting of metacognitive strategies, cognitive strategies, and one social strategy (see Figure 1) that was introduced in week 11 of the language course.

Insert Figure 1 here

### 2.4 Measures

Data for the present study were collected by means of the Oxford Placement Test (OPT; Allan, 2004) and the CEFR global self-assessment rating scale (Council of Europe 2001).

The OPT is usually used as a placement test. However, it can also be used as a diagnostic test to determine the differences in language ability between the beginning and end of a language course. The test is divided into two main sections. The first one mostly aims at testing reading, listening and vocabulary size while the second section is a test of grammar, vocabulary and reading skills. A significant advantage of the OPT is that it has been calibrated against a series of international language examinations and levels, including CEFR levels. In the present study the OPT was used

at the beginning and end of the language course to collect data on the language ability of students and determine progress.

The self-assessment global rating scale was used for the self-assessment of language competence at the beginning and end of the language course. It summarizes the set of proposed common reference levels in six single holistic paragraphs where each paragraph refers to one reference level (ranging from A1 – breakthrough level to C2 – mastery). In the present study the Slovene version of the global rating scale was used to collect data on the self-assessed language level of students and determine progress. Among other purposes, the use of the CEFR includes the raising of the awareness of students of their language knowledge (Council of Europe, 2001). In addition, using a common set of proficiency levels enables comparability of data across studies.

The results are based on data collected through the use of these two instruments. Therefore, it was essential to calculate the psychometric properties concerning their reliability and validity under the conditions described in 2.1 Setting and 2.2 Participants. The reliability of the results of both tests was confirmed using Pearson's coefficient of correlation (test-retest reliability), principal components analysis (internal consistency reliability), and Spearman's rank correlation coefficient (criterion-related validity). The predictive validity of the results of both tests was confirmed using regression analysis (the proportion of explained variance of achievement test scores as determined by the results of both instruments).

## 2.5 Procedure

### 2.5.1 Design and variables

This study aimed at exploring the *a priori* hypothesis that explicit introduction of language learning strategies into the teaching process would contribute to better language-test and self-assessment scores in mixed language ability groups. To explore whether this variable (strategy instruction) had an effect on these scores, regression analysis was used to find out if students from the treatment group had made more language progress than students from the contrast group.

In addition, in order to compare differences among students from both groups at similar levels of pre-existing language ability, sub-groups were formed: students at CEFR levels A1 and A2 were merged into a single group (A1/A2), students at B1 (representing the majority of all students) were retained as a single group, and students at levels B2 and C1 were merged into a B2/C1 group.

The statistical procedure of regression analysis was the major analysis used for the examination of the relationship between membership in group A (treatment group) and OPT and self-assessment scores. A sample required for testing regression coefficients should include at least twenty times as many cases as independent variables, or to have  $n \geq 50 + 8 \cdot m$  ( $m$  refers to the number of independent variables) for testing R-square (Tabachnick and Fidell, 2001). Despite being modest in size, the sample of seventy-seven participants meets both requirements. However, after all students had been divided into subgroups by their pre-existing language ability ("A1/A2", "B1", and "B2/C1"), the number of cases in each group significantly decreased and did not meet the requirements for testing regression or determination coefficients. As a result, in the second step of each analysis independent samples t test was used instead.

The two dependent variables that were included in two separate regression models (and independent samples t test in the second step of the analysis) are:

- scale variable "test difference", which reflects the difference in OPT scores at the beginning and end of the language course, assumed to indicate tested language progress, *or*
- scale variable "self-assessment difference", which reflects the difference in self-assessed levels of language competence at the beginning and end of the language course, assumed to indicate perceived language progress.

The independent variables that were included in the regression models are:

- dichotomized variable "membership in group A". Value 1 indicates that a student was a member of the treatment group (A), *and*
- scale variable "initial score – test", which reflects OPT scores at the beginning of the language course, assumed to have had an effect on language progress and acting as the moderating variable, *or*
- interval variable "initial score – self-assessment", which reflects self-assessed levels of language competence at the beginning of the language course, assumed to have had an effect on language progress and acting as the moderating variable.

The Statistical Package for the Social Sciences (SPSS 13.0 for Windows) was employed to process the data obtained in the study. The alpha level used in this study was 0.05.

## 3. Results

The OPT was given as a test to all students at the beginning (October, 2007) and end of the language course (May, 2008) to explore whether explicit instruction in learning strategies had an effect on the improvement of language ability as

tested by the OPT. Mean scores, confidence intervals, standard deviation values, and differences between OPT scores at the beginning and end of the language course in both groups are presented in Table 1.

Insert table 1 here

At the end of the language course mean OPT scores were higher. However, standard deviation values indicate that dispersion of values in the treatment group was greater than in the contrast group. To explore these results further, distribution of students into classes was necessary. Given that OPT results are calibrated against CEFR levels, students from both groups were divided into classes that correspond to CEFR levels from A1 to C1 (nobody reached C2) (see Figure 2 for the treatment group and Figure 3 for the contrast group).

Insert Figure 2 here

Figure 2 shows that at the beginning and end of the language course most students' English competence as measured by the OPT in the treatment group was at level B1. The data also reveals that the share of students at levels A1 and A2 considerably decreased at the end of the language course. The share of students at level B1 remained almost the same (it can be assumed that some students from levels A1 and A2 progressed to level B1) while the share of students at levels B2 and C1 increased. In addition, Figure 2 indicates heterogeneous levels of language ability among students in the treatment group, ranging from A1 to C1 at the beginning as well as end of the language course.

Insert Figure 3 here

Similar observations can be made in relation to the contrast group, as can be seen from Figure 3. At the beginning and end of the language course most students were at level B1. Language competence in this group was less heterogeneous than that in the treatment group given that no student was at level A1.

In order to find out whether explicit training in learning strategies as the key feature distinguishing the treatment group from the contrast group enhanced language learning and contributed to these results or, in other words, that students from the treatment group improved their OPT scores more than students from the contrast group, linear regression analysis (ENTER method) was used to identify independent predictors of language progress expressed by the variable "test difference". Two predictors were included in the analysis: membership in group A and initial language competence as measured by the OPT as the moderating variable (see Table 2).

Insert Table 2 here

The results of regression analysis presented in Table 2 show that membership in the treatment group did not have any statistically significant effect on language progress as measured by the OPT; in other words, students from the treatment group did not improve their scores more than their peers from the contrast group.

On the other hand, initial language competence as measured by the OPT had a statistically significant negative effect on language progress as measured by the OPT. In fact, eighteen per cent of the difference in OPT scores could be predicted through initial language competence. What is surprising is the negative effect of initial language competence on language progress.

The self-assessment global rating scale was given to all students at the beginning (October, 2007) and end of the language course (May, 2008) to explore the self-assessed level of language competence and whether explicit introduction of learning strategies into the teaching and learning process had an effect on self-assessed or perceived improvement of language competence. Mean scores, confidence intervals, standard deviation values, and differences between self-assessment scores at the beginning and end of the language course in both groups are presented in Table 3.

Insert Table 3 here

Data presented in Table 3 show that the average values indicating self-assessed language competence increased in both groups (by 0.30 in the treatment group and 0.20 in the contrast group). Standard deviation values indicate that dispersion of values indicating self-assessed language competence in both groups was almost equal. Nevertheless, in order to provide a comparison with OPT scores, Figures 4 and 5 show the distribution of students on reference levels by self-assessed language competence at the beginning and end of the language course.

Insert Figure 4 here

Figure 4 shows that at the beginning and end of the language course most students in the treatment group self-assessed their language competence to be at level B1. The data also reveals that the share of students at levels A1 and A2 decreased and that the share of students at levels B1 and higher increased. These results indicate that in the treatment group language competence as self-assessed by the students increased but also confirm the heterogeneous nature of the treatment group in terms of language ability both at the beginning and end of the language course.

Insert Figure 5 here

In the contrast group a slightly different pattern was observed, as shown in Figure 5. The share of students at level A1 increased by nine percent while the share of students at level A2 decreased by the same value. On the other hand, the share of students at B1 considerably decreased while the share of students at B2 and C1 increased. It seems that in the contrast group the perceived language competence among low-level students decreased while increasing among high-level students.

Figures 4 and 5 show that except some low-level students from the contrast group self-assessed language competence increased. In order to find out whether explicit introduction of learning strategies as the key feature distinguishing the treatment group from the contrast group enhanced language learning as perceived by students, linear regression analysis (ENTER method) was used to identify independent predictors of language progress expressed by the variable "self-assessment difference". Two predictors were included in the analysis: membership in group A and initial language competence as measured by the global self-assessment scale as the moderating variable (see Table 4).

Insert Table 4 here

The results of linear regression analysis presented in Table 4 reveal that membership in the treatment group did not have a statistically significant effect on self-assessed language progress. In other words, language progress as perceived by students was not enhanced through the explicit instruction in language learning strategies.

On the other hand, initial language competence as measured by the self-assessment global rating scale had a statistically significant negative effect on language progress. Again, as the regression analysis using OPT scores has shown, higher initial language competence seems to have had a negative effect on language progress.

In summary, language-test and self-assessment scores have shown that explicit instruction in learning strategies as the key feature distinguishing the treatment and contrast groups did not have any statistically significant effect on the tested or self-assessed language progress. In order to explore these results further, students from both groups at similar levels of initial language competence were compared by means of the independent samples t test. Sub-groups were formed based on the number of cases at each CEFR level: students at levels A1 and A2 were merged into a single group (A1/A2), students at B1 (representing the majority of all students) were retained as a single group, and students at levels B2 and C1 were merged into a B2/C1 group. The results have not revealed any statistically significant differences between the treatment and contrast groups if students were divided into sub-groups based on their initial language competence as measured by both instruments (see Tables 5, 6, 7 and 8 in the Appendix).

#### 4. Discussion

The main aim of the present research study was to explore the hypothesis that explicit language learning strategy instruction across all learning strategy groups enhances the development of (self-perceived) language ability in mixed language ability groups. Regression analysis was the main analysis used to test the hypothesis and determine the effect of membership in the treatment group, where language learning strategies had been explicitly integrated into the teaching and learning process, on test scores and self-assessed levels of language competence.

Firstly, the results have shown that the treatment and contrast groups were highly heterogeneous in terms of language competence. Due to the low number of enrolled students in each study programme, though, division of students into groups by language competence is not feasible. Another interesting aspect is that although most students had learned English for eight years in elementary and secondary schools, many among them had only reached CEFR levels A1 or A2. A secondary aim of the intervention was to empower high-level students for lifelong learning by providing them with opportunities to enrich their strategy repertoires. However, the results have shown that neither high-level nor low-level students have benefited from this approach.

Most importantly for this study, the results have shown that explicit language learning strategy instruction did not yield a statistically significant effect on language progress. In fact, language ability in both groups increased but the increase in the treatment group was not significantly higher than that in the contrast group.

Although these results bring into question the explicit introduction of language learning strategies into language classrooms where time for strategy training is deducted from the time dedicated to the teaching of language and in particular when groups are highly heterogeneous in terms of language ability, several possible reasons that might have led to these results can be identified.

The first one is the amount of time dedicated to explicit language learning strategy instruction. Total language course time was limited to ninety hours and time dedicated to language learning strategy instruction, as mentioned above, was deducted from this time. In my opinion, even if research studies have shown that to be effective language learning strategy instruction has to be integrated into regular (language) course work and be explicit (Chamot, 2004), the organization of a separate module is an alternative solution when course time constraints may hinder the effectiveness of training. The second alternative is to implement implicit instruction in learning strategies, which does not take away time from language teaching yet may still have powerful effects (Chamot, 2008). In fact, instead of claiming that

explicit language learning strategy instruction in the treatment group did not have any effect on language learning we may advance the hypothesis that language learning was enhanced to the same or similar extent by *implicit* language learning strategy instruction in the contrast group. In order to be able to confirm this hypothesis, however, three groups would be necessary: group A (with explicit learning strategy instruction), group B (with implicit learning strategy instruction), and group C (with no strategy instruction). To my knowledge, no study has explored this question yet.

In my opinion, the primary reason for the scarce efficiency of training was the heterogeneous nature of both groups (in particular the treatment group) in terms of initial language competence. Learners at different levels of language competence use different strategies. Learners at higher levels of language competence, for instance, use more complex strategies than learners at lower levels of language competence (Griffiths, 2003) and link them into efficient strategy chains or clusters matched to the language task. As a result, the training needs of students at different levels of language competence seem to be different.

A factor that is related to the heterogeneous nature of groups is the level of teaching. Most tasks in the coursebook are set at level B1/B2. As suggested by Chamot and O'Malley (1994), Oxford (1994) and Chamot et al. (1999), the tasks that language learning strategy instruction is related to should be at an appropriate level of difficulty (which can be matched against Krashen's (1985) input hypothesis). In a group that is heterogeneous in terms of language competence, however, tasks that are set at levels B1/B2 might be too difficult for A1 or A2 students that have to invest all cognitive energy into the (un)successful completion of the language task and not learning strategy use while the same task might be relatively easy for B2 or C1 students that perceive learning strategies as useless because they are able to complete the task without their application.

As mentioned in the Introduction, within the language learning research community several studies have indicated positive effects of language learning strategy instruction on language performance (e.g., Cohen et al., 1996; Lawson & Hogben, 1998; Sengupta, 2000; Kusiak, 2001; Rasekh & Ranjbar, 2003; Atay & Ozbulgan, 2007; Lau & Chan, 2007; Graham & Macaro, 2008). Given that the results of the present study have shown that training in learning strategies across all strategy groups has not yielded the desired results, it would seem reasonable, in particular under time constraints, to focus on a limited number of strategies and link them to a single language skill, which depends on the learning objectives. As Oxford and Ehrman (1995) found out, cognitive strategies are the strongest predictor of language progress, which suggests that (in addition to metacognitive strategies as discussed earlier) in a higher education setting cognitive strategies should be the strategy group to focus on rather memory strategies that bear a low cognitive potential.

A further finding that is worth exploring is that both regression models revealed that initial language competence was a negative predictor of language progress (even though the share of explained variance was rather low). Obviously, the teaching approach, course materials, and level of language input did not provide high-level students with opportunities to improve their general English competence. These results indicate the need for a higher level of individualization of teaching through the use of papers, portfolio assignments and additional tasks that would provide high-level students with more challenges for language acquisition and progress in the formal education setting in mixed language-ability classes.

In conclusion, the investigation was conducted among three groups of first-year students that were taught by the same teacher, which produced the rather modest sample of seventy-seven participants. The ability to generalize the data is therefore limited. These results, however, do bring into question the justification for explicit introduction of language learning strategies in a higher education setting where groups are highly heterogeneous in terms of language competence. Finally, an aspect that has not been researched by the international community yet is the effect of implicit (rather than explicit) instruction in learning strategies, which does not take away time from the real content of language teaching which remains to be – language.

## References

- Allan, D. (2004). *Oxford placement test 2*. Oxford: Oxford University Press.
- Anderson, J. R. (1985). *Cognitive psychology and its implications*. New York: Freeman.
- Anderson, J. R. (2000). *Learning and memory: an integrated approach*. New York: John Wiley and Sons.
- Atay, D. & Ozbulgan, C. (2007). Memory strategy instruction, contextual learning and ESP vocabulary recall. *English for Specific Purposes*, 26(1), 39-51.
- Chamot, A.U. (2004). Issues in language learning strategy research and teaching. *Electronic Journal of Foreign Language Teaching*, 1(1), 14-26.
- Chamot, A.U. (2008). Strategy instruction and good language learners. In C. Griffiths (Ed.), *Lessons from good language learners*. Cambridge: Language Teaching Library, pp. 166-281.

- Chamot, A.U. & O'Malley, J. (1994). *The CALLA handbook. Implementing the cognitive academic language learning approach*. New York: Longman.
- Chamot, A.U., Barnhardt, S., Beard El Dinary, P. & Robbins, J. (1999). *The learning strategies handbook*. New York: Longman.
- Cohen, A. (1998). *Strategies in learning and using a second language*. Addison: Wesley Pub Co.
- Cohen, A., Weaver, S. & Li, T.Y. (1996). *The impact of strategies-based instruction on speaking a foreign language*. Research report. University of Minnesota: Center for Advanced Research on Language Acquisition.
- Council of Europe (2001). *Common European framework of reference for languages: learning, teaching, assessment*. Cambridge: Cambridge University Press.
- Čeh, Ž. (2007). Efficient ESP learning: systematic teaching of word combinations. In Engberg, J. & M.G. Ditlevsen (Eds.), *New directions in LSP teaching linguistic insights: studies in language and communication*, Bern: Peter Lang, pp. 231-245.
- Graham, S. & Macaro, E. (2008). Strategy instruction in listening for lower-intermediate learners of French. *Language Learning*, 58(4), 747-783.
- Grenfell, M. & Harris, V. (1999). *Modern languages and learning strategies: in theory and practice*. London in New York: Routledge.
- Griffiths, C. (2003). Patterns of language learning strategy use. *System*, 31(3), 367–383.
- Harris, V. (2003). Adapting classroom-based strategy instruction to a distance learning context. *Teaching English as a Second or Foreign Language*, 7(2). 1-19.
- Jurkovič, V. (2002). *Analiza potreb pri pouku angleščine za študijski program Tehnologija prometa na Fakulteti za pomorstvo in promet* [Needs analysis in teaching English to students of traffic technology at the Faculty of maritime studies and transport]. Unpublished master's thesis. Ljubljana: University of Ljubljana.
- Jurkovič, V. (2007). The effect of language learning strategy instruction on ESP learning: a project presentation. In Engberg, J. & M.G. Ditlevsen (Eds.), *New directions in LSP teaching linguistic insights: studies in language and communication*, Bern: Peter Lang, pp. 283-299.
- Jurkovič, V. & Harsch, R. (2004). *Routes to traffic English*. Portorož: Faculty of maritime studies and transport.
- Krashen, S. (1985). *The input hypothesis: issues and implications*. New York: Longman.
- Kusiak, M. (2001). The effect of metacognitive strategy training on reading comprehension and metacognitive knowledge. In S.H. Foster-Cohen & Nizegorodcew, A. (Eds.), *EUROSLA Yearbook*: Philadelphia: John Benjamins, pp. 255-274.
- Lau, K. & Chan, D.W. (2007). The effects of cognitive strategy instruction on Chinese reading comprehension among Hong Kong low achieving students. *Reading and Writing*, 20, 833-857.
- Lawson, M. & Hogben, D. (1998). Learning and recall of foreign-language vocabulary: effects of a keyword strategy for immediate and delayed recall. *Learning and Instruction*, 8(2), 179-194.
- Macaro, E. (2001). *Learning strategies in second and foreign language classrooms*. London: Continuum.
- Macaro, E. (2006). Strategies for language learning and for language use: revising the theoretical framework. *The Modern Language Journal*, 90(3), 320-337.
- O'Malley, J.M. (1987). The effects of training in the use of learning strategies on learning English as a second language. In Wenden, A. & Rubin, J. (Eds.), *Learner strategies in language learning*, Englewood Cliffs: Prentice/Hall, pp. 133–143.
- Oxford, R. (1990). *Language learning strategies: what every teacher should know*. New York: Newbury House/Harper&Row.
- Oxford, R. (1994). Language learning strategies: an update. ERIC Clearinghouse on Languages and Linguistics.
- Oxford, R. & Ehrman, M. (1995). Adults' language learning strategies in an intensive foreign language program in the United States. *System*, 23(3), 359-386.
- Oxford, R., Crookall, D., Cohen, A., Lavine, R., Nyikos, M. & Sutter, W. (1990). Strategy training for language learners: six situational case studies and a training model. *Foreign Language Annals*, 22(3), 197-216.
- Rasekh, Z. E. & Ranjbar, R. (2003). Metacognitive strategy training for vocabulary learning. *Teaching English as a Second or Foreign Language*, 7(2), 1-15.

Rossiter, M. (2003). The effects of affective strategy training in the ESL classroom. *Teaching English as a Second or Foreign Language*, 7(2), 1-20.

Rubin, J. (1975). What the ‘good language learner’ can teach us. *TESOL Quarterly*, 9, 41-51.

Schmitt, N. (1997). Vocabulary learning strategies. In Carter, R. & McCarthy, M. (Eds.), *Vocabulary and vocabulary teaching*. Longman: New York, pp. 198-218.

Sengupta, S. (2000). An investigation into the effects of revision strategy instruction on L2 secondary school learners. *System*, 28, 97-113.

Stern, H. (1975). What can we learn from the good language learner? *Canadian Modern Language Review*, 31, 304-318.

Tabachnick, B.G. & Fidell, L.S. (2001). *Using multivariate statistics*. Needham Heights, MA: Allyn & Bacon.

**Appendix**

Insert Table 5, Table 6, Table 7, Table 8 here

Table 1. Test scores in the treatment and contrast groups at the beginning and end of the language course

	Treatment group			Contrast group		
	Mean	Confidence interval	Std. dev.	Mean	Confidence interval	Std. dev.
<b>October 2007</b>	125.63	121.67 129.58	14.75	126.62	121.22 132.02	11.86
<b>May 2008</b>	131.50	127.56 135.44	14.72	131.48	126.89 136.07	10.08
<b>Difference</b>	5.87	2.79 8.96	11.51	4.86	1.22 8.49	7.98

Table 2. Beta weights of membership in the treatment group and OPT scores at the beginning of the language course as predictors of language progress as measured by the OPT based on the total regression model (N=77), proportion of explained variance (R<sup>2</sup>) by this model and significance level of F-value

	Membership in group A	Initial score – test	R <sup>2</sup>	F
“test difference”	0.03	-0.42**	0.18	7.89**

\*p < 0.05; \*\*p < 0.01; \*\*\*p < 0.001

Table 3. Self-assessed CEFR levels in the treatment and contrast groups at the beginning and end of the language course

	Treatment group			Contrast group		
	Mean <sup>a</sup>	Confidence interval	Std. dev.	Mean <sup>a</sup>	Confidence interval	Std. dev.
<b>October 2007</b>	2.66	2.38 2.94	1.03	3.14	2.75 3.35	0.85
<b>May 2008</b>	2.96	2.68 3.25	1.06	3.33	2.79 3.88	1.20
<b>Difference</b>	0.30	0.09 0.52	0.81	0.20	-0.23 0.61	0.92

<sup>a</sup> 1- A1; 2 – A2; 3 – B1; 4 – B2, 5 – C1, 6 – C2.

Table 4. Beta weights of membership in the treatment group and self-assessment scores at the beginning of the language course as predictors of language progress as measured by the self-assessment global scale based on the total regression model (N=77), proportion of explained variance (R<sup>2</sup>) by this model and significance level of F-value

	Membership in group A	Initial score – self-assessment	R <sup>2</sup>	F
“self-assessment difference”	-0.00	-0.29	0.09	3.44**

\*p < 0.05; \*\*p < 0.01; \*\*\*p < 0.001

Table 5. Descriptive statistics for the variable “test difference” in groups A1/A2, B1, and B2/C1 according to OPT scores

Level	Group	N	Mean	Std. dev.
A1/A2	Treatment (A)	18	8.67	1.82
	Contrast (B)	7	7.29	2.71
B1	Treatment (A)	24	8.41	1.98
	Contrast (B)	10	6.70	2.49
B2/C1	Treatment (A)	14	-0.21	15.01
	Contrast (B)	4	-4.00	2.45

Table 6. Independent samples t test for the variable “test difference” in groups A1/A2, B1, and B2/C1 according to OPT scores

		t	Sig. (2-tailed)	Mean difference	95% confidence interval of the difference	
A1/A2	Equal variances assumed	0.41	0.69	1.38	-5.60	8.36
	Equal variances not assumed	0.42	0.68	1.38	-5.75	8.51
B1	Equal variances assumed	0.49	0.63	1.72	-5.37	8.80
	Equal variances not assumed	0.54	0.60	1.72	-4.91	8.34
B2/C1	Equal variances assumed	0.25	0.81	1.93	-14.38	18.24
	Equal variances not assumed	0.46	0.65	1.93	-7.01	10.87

Table 7. Descriptive statistics for the variable “self-assessment difference” in groups A1/A2, B1, and B2/C1 according to self-assessment scores

Level	Group	N	Mean	Std. dev.
A1/A2	Treatment (A)	24	0.67	0.17
	Contrast (B)	4	0.50	0.29
B1	Treatment (A)	21	0.00	0.77
	Contrast (B)	9	0.11	1.27
B2/C1	Treatment (A)	11	0.09	0.16
	Contrast (B)	8	0.13	0.23

Table 8. Independent samples t test for the variable “self-assessment difference” in groups A1/A2, B1, and B2/C1 according to self-assessment scores

		t	Sig. (2-tailed)	Mean difference	95% confidence interval of the difference	
A1/A2	Equal variances assumed	0.39	0.70	0.17	-0.71	1.05
	Equal variances not assumed	0.50	0.64	0.17	-0.68	1.01
B1	Equal variances assumed	-0.30	0.77	-0.11	-0.88	0.66
	Equal variances not assumed	-0.24	0.81	-0.11	-1.12	0.90
B2/C1	Equal variances assumed	-0.13	0.90	-0.03	-0.61	0.54
	Equal variances not assumed	-0.12	0.90	-0.03	-0.63	0.57

**Treatment group**

We will listen to a relatively long text (twelve minutes) discussing benefits and drawbacks of high-speed trains for consumers and society. At the end you will be asked to orally summarize the text to a partner.

- Do you ever use the strategy of summarizing in language learning?
- Summarizing is important because it allows you to recombine information in new ways, which enhances retention.
- Before summarizing, it is always a good idea to identify the main points and supporting details.

Listen to the text on high-speed trains and follow these instructions:

- Before listening: use the strategy of *linking new to known information* and write down anything you already know about high-speed trains. We will briefly discuss your ideas before we start the listening task.
- Listen to the text for the first time. Use the strategy of *identifying the main points* (benefits and drawbacks) and write them down in the chart on p. 31.
- Use the strategy of *cooperating with peers* and compare the main points you have identified with a partner.
- Listen to the text for the second time. Use the strategy of *identifying details* and accompany each main point with a detail that you find relevant or interesting.
- Use the strategy of *cooperating with peers* and compare these details with a partner's.
- Work with a partner and use the strategy of *summarizing* to orally summarize the content of your chart.

You followed a process that included:

- linking new to known information,
- finding out main points,
- finding out details,
- taking notes,
- cooperating with a partner, and
- summarizing.

Reflect on the following questions (using the strategy of *evaluation*):

- Do you think it was more efficient to deal with the text in this way instead of simply 'listening' and 'concentrating', which you had mentioned at the beginning? Why?
- Do you think that the same strategy cluster could be applied to a reading task? Which changes would you have to make?
- Do you think you could use the same strategy cluster in a real-life situation (e.g., while watching a documentary at home)? Which changes would you have to make?

**Contrast group**

We will listen to a relatively long text (twelve minutes) discussing benefits and drawbacks of high-speed trains for consumers and society. At the end you will be asked to orally summarize the text to a partner.

Listen to the text on high-speed trains and follow these instructions:

- Before listening: write down anything you already know about high-speed trains. We will briefly discuss your ideas before we start the listening task.
- Listen to the text for the first time. Identify the main points (benefits and drawbacks) and write them down in the chart on p. 31.
- Compare the main points you have identified with a partner.
- Listen to the text for the second time. Identify details and accompany each main point with a detail that you find relevant or interesting.
- Compare these details with a partner's.
- Work with a partner. Orally summarize the content of your chart.

Figure 1. Sample flow of instruction in the treatment and contrast groups

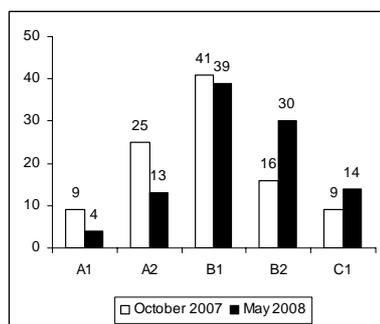


Figure 2. CEFR levels based on OPT scores in the treatment group

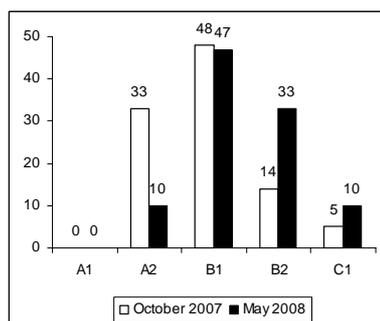


Figure 3. CEFR levels based on OPT scores in the contrast group

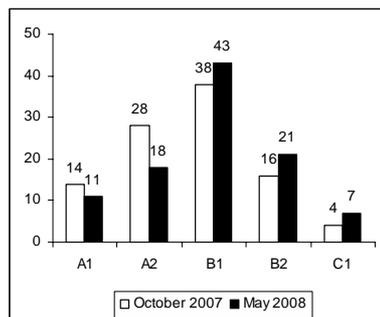


Figure 4. Self-assessed CEFR levels in the treatment group

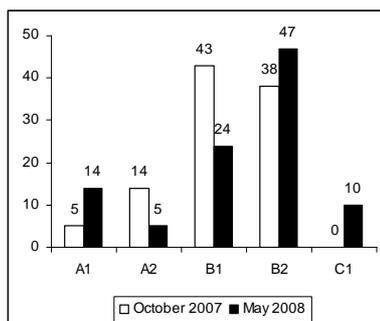


Figure 5. Self-assessed CEFR levels in the contrast group