

Students' Opinions Regarding Reading Strategies Instruction Based on Cognitive Academic Language Learning Approach

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Abstract

This study aims at investigating students' opinions regarding the effect of reading strategies instruction—based on Cognitive Academic Language Learning Approach and applied in a French class as a second language in higher education—over their reading skills and strategy use. Data was collected through semi-structured interviews both before and after the intervention. Participants of the study were six students representing high, medium and low proficiency levels in reading. Descriptive analysis was employed for data analysis. Findings generally indicate that students hold positive opinions about the effect of reading strategies instruction over their reading skills and strategy use. Furthermore, after the strategy instruction, a certain variation among the strategies applied by students was detected and students were noted to have higher levels of awareness concerning their reading skills and strategy use.

Keywords: *Reading strategies; strategy instruction; second language; CALLA*

Introduction

Learning a language involves mastering four skills: reading, listening, writing, and speaking in the target language. Of all the language skills, reading can be considered as the primary tool for learning in the first language (L1) and in a second language (L2); and a good command of reading skill also in L2 may have positive influence over the academic success of students completing their higher education.

Reading can be defined as a fluent and active process in which readers construct meaning by bringing knowledge, experiences and emotions to the text (Anderson, 1999: 1; Bouvet & Close, 2006). In this complex and cognitively demanding process involving the coordination of attention, memory, perceptual processes, and comprehension processes (Kern, 1989: 135), readers should take some conscious actions called "reading strategies" in order to build meaning. Reading strategies are defined as the actions actively chosen and controlled by the reader in order to reach the goal of reading (Carrell, Gajdusek & Wise, 1998: 97). Within the literature, researchers commonly agree that there is a relation between reading strategies and reading effectively in L2 and that strategy instruction has a positive influence over students' skills to comprehend what they read (Anderson, 1999; Carrell, 1998; Koda, 2007; Taylor, Steven & Asher, 2006).

There have been several strategy instruction models within L2 teaching (Chamot & O'Malley, 1994; Cohen & Weaver, 2005; Grenfell & Harris, 1999; Oxford, 1990). Among these models, Cognitive Academic Language Learning Approach (CALLA) was developed in the United States in 1986 in order to overcome the academic problems that secondary education students who were learning English as L2 were having in their other classes (Allen, 2003: 331-332; Chamot & O'Malley, 1994: 4; Chamot & O'Malley, 1996: 259). The results of the studies indicate that CALLA can be employed at various educational levels and settings such as colleges, universities, intensive language programs, and foreign language programs (Chamot, Barnhardt, El-Dinary & Robbins, 1999: 7; Chamot & O'Malley, 1994: 168-185, Chamot & Robbins, 2006: 6).

CALLA has three main components; content topics, academic language development, and explicit instruction in learning strategies for both content and language acquisition. The content is chosen among the topics that are compatible with students' levels and field of study. Following the formation of a framework concerning the significant topics in students' fields of study, it is suggested that their interest and motivation should also be taken into account during topic selection (Allen, 2003: 330; Chamot & O'Malley, 1994: 10-32). Content helps students enlarge their repertoire across different topics and influences their motivation positively. The inclusion of content does not mean to review what students learn in other classes or to teach subjects of a specific course in a language class. The primary goal is to furnish students with language learning strategies and academic language skills through content in order to equip them with effective learner qualities; hence to improve their academic success (Chamot & O'Malley, 1994: 10-32).

Academic language development involves all four language skills: speaking, listening, reading and writing. These are taught in any content subject area (Allen, 2003: 330). According to Cummins (1980:175-177), cognitive/academic language proficiency could be differentiated from basic communications skills. While cognitive/academic proficiency is related to literacy skills in L1 and L2, basic communications skills are related to accent, oral fluency, and sociolinguistic competence. Chamot and O'Malley (1994: 40-42) based on this distinction suggested by Cummins, divide language skills into two as academic and social language skills. Social language refers to a specific type of language used to socialize in a given environment whereas academic language means the one used while teaching and learning by teachers and students. Social language functions cover those such as meeting someone or initiating a social conversation with a stranger. On the other hand, academic language functions include searching for information, informing, comparing, ordering, classifying, analyzing, synthesizing, and evaluating and bears importance in terms of turning students into effective learners (Chamot & O'Malley, 1994: 184).

Another distinctive feature of the model is that teaching of language learning strategies takes place explicitly, interwoven with the language topics. Cohen (2000:15) highlights that many learners "need to be trained explicitly to become more aware of and proficient with a broad range of strategies". The goal of explicit strategy instruction is to offer students a list of strategies which can be used as a menu to choose in accordance with different learning activities and tasks (Chamot & O'Malley, 1994: 11). Strategy instruction should be integrated to language instruction (Chamot, Thomppson, Küpper, Barnhardt & Barrueta, 1990: 20). Therefore, what sets the strategy to be taught within CALLA is the program. The first thing to be done is to decide on content goals and learning tasks; and then strategies compatible with the content and tasks should be determined (Chamot & O'Malley, 1994: 64).

CALLA has been utilized in various countries such as the United States, Canada, and Spain; and it stands as an effective strategy instruction model according to the results of several longitudinal and broad-scope studies (Chamot, 1995: 380; Chamot & O'Malley, 1996: 259; Lynch, 1993: 5). This

model was also used by other researchers in order to investigate the effect of the strategy instruction on reading and/or strategy use. The results of several studies indicate that strategy instruction based on CALLA has positive effect on reading performance (Arpacioğlu, 2007; Çubukçu, 2008; Handside, 2007; Karbalaei, 2001; Takallou, 2011) on strategy use (Arpacioğlu, 2007; Handside, 2007; Kantarcı, 2006; Takallou, 2011). In these studies, researchers used quantitative methods by comparing pretest and posttest scores regarding participants' reading performance and strategy use and/or qualitative methods (e.g. think-aloud protocols) in order to determine the effect of strategy instruction on strategy use. However, it is also important to evaluate a strategy instruction model through students opinions regarding the effect of a strategy instruction model. Therefore, this study aimed at investigating what students think about the effects of reading strategies instruction based on CALLA over their skills to comprehend what they read and over their use of reading strategies.

Method

In order to examine students' opinions about the effect of CALLA over their comprehension skills and strategy use, as a qualitative data collection method, semi-structured interviews were conducted before and after the intervention.

Participants

The participants of the study are six students who were chosen among 18 students attending French Preparatory Program at Eskişehir Osmangazi University during the spring term of 2009-2010. As data was intended to collect both before and after the intervention and semi-structures could yield a huge amount data, it couldn't be possible to conduct interviews with all students participating in the reading strategies instruction. Therefore, interviews were conducted with a small sample. One of the participants were males, 5 were females. All participants volunteered to participate in the study.

Participants were chosen from different success groups according to Reading Comprehension Achievement Test developed by the researchers and administered before the intervention. Arithmetic mean and standard deviation were calculated as, respectively, 18.11 and 3.66. The lowest and highest scores obtained Reading Comprehension Achievement Test (the maximum point of the test was 33) were calculated as, respectively, 9 and 24 (Özkan Gürses & Adıgüzel, 2013). From each success group (representing high, medium, and low proficiency in reading) two students were chosen. Students in low proficiency had the lowest scores (9 and 14), those in medium proficiency had the average score (18) and those in high proficiency had high scores (23) from the test.

Data Collection

Semi-structured interview approach was used in the data collection. In this approach, the questions or general topics can be predetermined but the interviewer is free to explore or probe within predetermined area (Hoepfl, 1997).

The research question and related literature guided the formation of the interview questions. Six field experts from Educational Sciences, French Language Teaching, and English Language Teaching were consulted to double check the compatibility of the questions with this study's aim. The wording of questions was modified in accordance with expert advice. On the 20th of February, 2011, the interview guide was tested with a student in a session that lasted for 38 minutes. Based on the data obtained during that interview, the guide was approved to be consistent with the research aim. Interviews were conducted by the second author.

Data Analysis

First thing done for the analysis of interview data was to transcribe the audio records of the interviews. Descriptive analysis approach was employed for the analysis of interview data. A thematic frame was set for the analysis based on interview questions. The main themes identified were: (1) students' opinions about their skills to comprehend what they read, and (2) students' opinions about the reading strategies they used. Data were coded along with the thematic frame, and a field expert from Educational Sciences was asked to code the same data. Subsequently, the comparison of codings yielded that the reliability of the interviews was 95% according to the formula (Reliability = Agreement / Agreement + Disagreement x 100) developed by Miles and Huberman (1994: 64). Findings are displayed in tables and supported with direct quotes.

Procedure

Reading strategies instruction was implemented by the second author who is French lecturer in accordance with action research model defined as "any systematic inquiry conducted by teacher researchers, principals, school counselors, or other stakeholders in the teaching/learning environment to gather information about their particular schools operate, how they teach, and how well their students learn" (Mills, 2003: 5). Action research model can be carried out in order to test a new approach (Yıldırım & Şimşek, 2008: 298). In this study, CALLA was implemented as a new instruction model in order to improve students' reading skills in L2 by teaching reading strategies.

The steps of action research called the Dialectic Action Research Spiral by Mills (2003:19) were followed: identify an area of focus, collect data, analyze and interpret data, and develop an action plan. At the beginning of the action research process, as an area focus, the need of reading strategies instruction of students learning second language in higher education was determined. Strategies to be taught were selected according to related literature and data base. As a reading strategies instruction model, CALLA was regarded suitable for the students in question.

Teaching reading strategies based on CALLA lasted 8 weeks, four-hours a week between 16th of March and 12th of May, 2010 at the preparatory program. For ensure the validity of action research, a validity committee consisting of four members (three experts and the researcher conducting strategy instruction) came together once every two weeks throughout the strategy instruction. Courses were video-taped, and some sections of the videos that had undergone macro-transcription were viewed during validity committee meetings once in two weeks (Özkan Gürses & Adigüzel, 2013).

The intervention included training on goal setting, previewing, using background knowledge, making inferences, selective attention, self-questioning, and summarizing. Training of these strategies involved five steps: preparation, presentation, practice, evaluation, and expansion. These steps are not to be followed in a certain sequence. Teacher may fall back on previous steps if students need. Preparation regards raising students' awareness of the strategies they already use. In presentation, teacher announces the name of the strategy to be taught, clarifies its functionality, and models its use. During practice, students are given opportunities to test-drive the strategy. During evaluation, students assess their strategy use and finally, they are encouraged to transfer the strategy they tried to other tasks during expansion (Chamot, et al.,1999: 43-45).

During the intervention, various problems emerged such as the medium of instruction (French vs Turkish), student participation. For the first two weeks, the instruction was carried out in French; however, students were not able to fully participate in the lessons and to express their opinions effectively. It was thought that students' level in French was not suitable especially for the

presentation step of the instruction. Therefore, Turkish was used as the medium of instruction especially at the presentation step. Some students were reluctant to learn during the weeks when self-questioning and summarizing strategies were presented. Within the last two weeks instead of teaching a new reading strategy, students were given the chance to practice the strategies they learned on texts considered to be different and more interesting. Furthermore, the reciprocal teaching technique was put into practice during the 6th and 7th weeks of the intervention so as to make students more active and involved in strategy use. CALLA allows trainers to use reciprocal teaching technique, which is a group work providing students with the chance of using various reading strategies, especially during practice (Chamot & O'Malley, 1994: 91). In this technique, a student bears the role of a teacher, summarizes the previously read part, asks questions to the students about the text, identifies the difficult points in the text, and makes predictions about the topic of the following part in which students swap their roles, and repeat the same process (Chamot & O'Malley, 1994: 91). When students read a text and discuss about it using this technique, they congruously employ several strategies such as summarizing, questioning, monitoring comprehension, and predicting during reading. Chamot and O'Malley (1994: 298) state that it would be wise to use short stories or novels for training, especially, literature students about strategies and that students would find the opportunity to like and comprehend a text simultaneously.

Findings and Interpretation

Interviews with six students, both before and after the intervention, were conducted in order to collect data about students' opinions concerning the effects of reading strategies instruction based on CALLA over their reading skills and strategy use. Findings from the interviews were grouped under two themes; (1) students' opinions about their skills to comprehend what they read, and (2) students' opinions about the reading strategies they used. Each is presented separately to make it easy to compare the differences between pre and post interviews.

Students' Opinions about Their Skills to Comprehend What They Read

Table 1 depicts related findings in three sub-themes such as (1) students' opinions about their level of comprehension in reading, (2) students' opinions about the comprehension problems they have in reading, and (3) students' opinions about their goals to improve their comprehension levels.

Table 1. Students' Opinions about Their Skills to Comprehend What They Read

Students' Opinions about Their Skills to Comprehend What They Read n=6	Number of Opinions	
	Pre	Post
Students' opinions about their level of comprehension in reading	7	11
Assessing oneself as a good reader	2	2
Assessing oneself as an average reader	2	1
Comprehending the text in French without translation	1	1
Comprehending a level-appropriate text	1	0
Comprehending what is read	1	0
Increase of reading speed and level	0	2
High-level comprehension of a low-level text	0	1
Understanding a text in general without using a dictionary	0	1
Understanding the main idea	0	1
Easy comprehension by way of strategies	0	1
Finding specific information in the text	0	1

Students' Opinions about Their Skills to Comprehend What They Read n=6	Number of Opinions	
	Pre	Post
Students' opinions about the comprehension problems they have in reading	13	11
Inadequate vocabulary	6	5
Effective use of time	2	1
Lack of grammar	1	1
Difficulty in reading in detail	1	2
Slow reading	2	0
Incomprehension when reading aloud	1	0
Reading in detail	0	1
Incomplete comprehension of an authentic text	0	1
Students' opinions about their goals to improve their comprehension levels	6	8
Reading a literary work in French	1	2
Reading a journal or newspaper in French	1	2
Understanding the main idea(s) of a text without using a dictionary	2	1
Full comprehension when reading in French	1	1
Matching comprehension level in French with that in English	1	0
Reaching proficiency level in reading	0	1
Comprehending what is read while thinking in French	0	1

Not. Pre: Before the intervention Post: After the intervention

A closer examination of Table 1 reveals that students' opinions about their level of comprehension in reading and their goals to improve their comprehension levels increased after the intervention whereas the number related to the comprehension problems they have in reading decreased. Moreover, students' opinions stated for each theme differed after the intervention.

Students' opinions about their level of comprehension in reading in detail shows that a very broad opinion such as "comprehending what is read" has taken more specific forms after the intervention such as "understanding the main idea(s)", "understanding a text in general without using a dictionary", and "finding specific information in the text". Furthermore, the opinions stated after the intervention does not concern any specific text level. Thus, it may be concluded that students started to see themselves capable of understanding the main ideas or understanding any text in general after the intervention. Moreover, some students compared their performances, and they noted that there was an increase in their pace of reading and comprehension after the intervention. Based on these findings, it wouldn't be wrong to conclude that students started to verbalize their opinions about their level of comprehension in detail and that they improved their level of comprehension during the intervention. Concerning the level of comprehending in reading, a participant said;

P6- Pre (1257-1259): *"I was really bad until two weeks ago, but now I'm good, I'm really good. Watching movies also helps a lot. A: Watching facilitates reading comprehension indirectly...."* P6-Pre (1260-1261): *since we watch with French subtitles'*

comparing reading comprehension with comprehending the subtitles of a movie before the intervention. Yet, after the intervention the same participant said;

P6-Post (1641-1642): *"I need to make a comparison to assess myself. When I do it, I see that I'm really OK. Seriously, I'm much better than before.* P6-Post (1652-1653): *I'm trying to guess, I mean, if there is an implication of something positive or negative in the text, I can easily sense it...* P6-Post (1659-1662): *I guess I'm good at summarizing because we had plenty of exercise on it. I feel like I'm used to it."*

These statements show that s/he assesses himself/herself by use of strategies such as making inferences and summarizing.

Examination of students' opinions about the problems they have in reading shows that all students before the intervention and still a large number of them after the intervention complained about "inadequate vocabulary". Following the intervention, "effective use of time" were not stated that much. Moreover, problems stated before the intervention such as "incomprehension when reading aloud" and "slow reading" were not mentioned after the intervention. On the other hand, more students verbalized the problem of "difficulty in reading in detail" after the intervention, and some problems that had not been mentioned prior to the intervention were also stated, which are "reading in detail" and "incomplete comprehension of an authentic text". These findings suggest that students had fewer problems related to the inadequate vocabulary, pace of reading, and time constraints upon completion of the intervention. Other problems that were stated more often than before—such as "reading in detail", "difficulty in reading in detail"—can be attributed to students' heightened levels of awareness about the sources of problems they had.

A participant said the following about the problems experienced during reading in French before the intervention;

P4-Pre (804-806): *"To me, grammar is not a problem, but vocabulary is. Generally, when I don't understand some points, it is the vocabulary that causes it."*

However, the same participant mentioned the following after the intervention;

P4-Post (1037-1039): *"Generally, I don't get into details while reading, I guess it is the biggest problem; besides, inadequate vocabulary is still a problem for me."* ,

combining another problem with lack of vocabulary.

Analysis of students' opinions about their goals to improve their comprehension levels shows that the numbers of opinions both before and after the intervention are not that different. Nevertheless, some of the opinions such as "reading a literary work in French" , "reading a journal or newspaper in French" were more often stated by the participants after the intervention. The goal of "understanding the main idea(s) of a text without using a dictionary" was mentioned by fewer students following the intervention. Furthermore, the goal verbalized before the intervention, "matching comprehension level in French with that in English", was not stated again after the intervention; and two goals not mentioned prior to the intervention but were said by the participants following the intervention are "reaching proficiency level in reading" and "comprehending what is read while thinking in French". Based on these results, it is possible to conclude that participants wanted to achieve higher levels of profession after the intervention.

A participant mentioned that s/he aimed to have a good command of French in order to read literary works in French both before and after the intervention;

P1-Pre (270-274): *"I love Balsac, and I want to read his works in French. I read the Turkish versions, but it should feel different reading in the authentic language. You know, for example, we can't translate poems exactly. Even if we do, many things get lost in translation; that's why I wanted to study a language in the first place."* P1-Post (362-364): *"I want to, as I said earlier, to read for example The Hunchback of Notre dame by Victor Hugo in its original language. I want to reach to that level that I can read anything in French."*

In a nutshell, students' opinions regarding their reading comprehension skills point that students improved not only their level of comprehension, but also their awareness concerning their level of comprehension and the problems they experience while reading after the intervention.

Students' Opinions about the Reading Strategies They Used

Findings related with students' opinions about reading strategies they used were grouped under two themes: (1) Students' opinions about the types of reading strategies they used; and (2) Students' opinions about the factors considered to be influential over reading strategies they used. Table 2 shows data related with types of reading strategies students used both before and after the intervention.

Table 2. Students' Opinions about the Types of Reading Strategies They Used

Students' opinions about the types of reading strategies they used n=6	Number of Opinions	
	Pre	Post
Metacognitive Strategies Students Used	48	63
Goal setting	5	6
Previewing	4	5
Self-monitoring	15	18
Monitoring comprehension	3	3
Monitoring strategy use	4	5
Self-assessment	5	5
Self-questioning	3	5
Selective attention	22	33
Noticing the visuals	4	5
Noticing the contextual clues (title, footnote, etc.)	3	6
Noticing linguistic features and grammar	4	6
Noticing the familiar vocabulary	1	0
Noticing the unknown vocabulary	3	1
Noticing pronunciation	1	2
Noticing specific parts of the text	4	4
Noticing the proper nouns	1	4
Noticing the numbers	1	3

Students' opinions about the types of reading strategies they used n=6	Number of Opinions	
	Pre	Post
Noticing the key words	0	2
Direct attention	2	1
Cognitive strategies students used	63	76
Making inferences	6	6
Elaborating	6	9
Relating the text to the background knowledge	5	5
Relating the parts of the text with one another	1	4
Predicting	1	3
Transferring	2	3
Deducing	3	5
Re-reading	6	5
Underlying	5	5
Taking notes	5	5
Summarizing	5	6
Translation	6	6
Using dictionary	6	6
Reading aloud	1	2
Forming schemas	3	1
Analyzing	5	5
Skipping	3	5
Mental picture	0	4

Not. Pre: Before the intervention Post: After the intervention

As can be found in Table 2, students employed more different types of strategies after the intervention. As for the types of metacognitive strategies used by students, the number of opinions concerning goal setting, previewing, self-monitoring, and selective attention, which were practiced during the intervention, went up. The increase in the number of opinions regarding the subtitles under self-monitoring and selective attention such as monitoring strategy use, self-questioning, noticing the visuals, title, and footnote, and noticing the linguistic features and grammar can be interpreted as the positive influence of strategy instruction.

One of the participants stated that s/he hadn't known much about goal setting and self-questioning—two of metacognitive strategies—before the intervention, and started to read any text without thinking about the text;

P5-Pre (1068-1071): *"..title reveals what kind of a text it is. I know nothing about what to do. Actually, I start reading right off the bat. But, if it is a text that I know something about, then I pay more attention. However, if it is not interesting for me, then I feel a little reluctant about reading it..."* P5-Pre (1143-1145): *"I have never noticed. Maybe, I can talk to myself and say things like, yeah this means that, bla bla, and I may even take notes. Yet, I don't especially ask questions and look for answers."*

The same participant said the following after the intervention;

P5-Post (1481-1486): *"If I need to answer questions, then my goal becomes to find answers in the text. If it is the theme, then I try to find the theme. Therefore, I don't do much for the texts if the goal is explicit. I scan the text, and if there are questions to be*

answered I look for the key words in the text...P5-Post (1356-1359): If it is a theme, or question, you know it is selective attention again. It's the most frequent strategy I employ, and I noticed that I'm asking questions to myself while reading. I mean not only for texts in French, but for anything I read, yet subconsciously."

Findings regarding cognitive strategies indicate that the numbers of opinions about the strategies practiced during the intervention such as predicting and summarizing augmented. About making inferences, predicting, relating the text to the background knowledge, summarizing, skipping, and transferring among the cognitive strategies, a participant mentioned that s/he focused on making sense more on lexical and sentential level, and that s/he used making inferences, skipping, and transferring strategies before the intervention;

P2-Pre (289-290): "When I come across an unknown vocabulary item in a paragraph or sentence, I first try to make sense of it by guessing its meaning from the context...P2-Pre (307-308): "I start. I skip the sentence if I don't understand it at all; but if I can make sense of it even a little bit, I work on it and spend a lot of time to figure it out...P2-Pre (324-329): There isn't anything I especially do to figure it out. I force myself to remember its meaning if it is a word. Or, I check my English and Turkish vocabulary to make sense of it. I think much about it. You know western languages are syntactically different, therefore I try to understand the sentences in a reverse order."

After the intervention, the same participant stated that s/he used predicting, relating the text to the background knowledge, summarizing, and making inferences strategies;

P2-Post (433-441): "First I think about the text before I get started. I try to predict what that text might be about. I check what I know about the topic once I predict what it is. When I begin reading, I start making predictions again, but this time predictions are more solid, there are more clues to predict. Then I see if I'm right or not. At the end of reading, I mentally summarize what I understood from the text. P2-Post (489-492): I try making inferences, I use the contextual clues and my background knowledge to make sense of the unknown word. I employ predicting and making inferences strategies really often."

Based on the findings regarding students' opinions about the strategies they used, one can conclude that students' learned to vary the strategies they use, and their awareness of the strategies was heightened. Table 3 displays students' opinions about the factors considered to be influential over the reading strategies they used.

Table 3: Students' Opinions about the Factors Considered to Be Influential Over the Reading Strategies They Used

Students' opinions about the factors considered to be over the reading strategies they used n=6	Number of Opinions	
	Pre	Post
Reading Task (for exam or questions below the text)	4	5
Text Type	1	2
Text Difficulty	1	4
Text Length	1	2
Reading Purpose	1	4
Text Topic	0	2

Not: Pre: Before the intervention Post: After the intervention

As the numbers in Table 3 indicate, students' opinions about the factors considered to be influential over the reading strategies they used increased after the intervention. Reading task is the most frequent opinion stated both before and after the intervention. This may be attributed to the fact that all students have an extended language learning background, that all of them took the university exam as a language student, and therefore that they were well aware of alternating their strategies in accordance with reading task. Other frequent opinions mentioned by students after the intervention are "text difficulty" and "reading purpose". Moreover, there was no opinion regarding the topic of the text before the intervention, but two students emphasized it as a factor affecting their strategy use after the intervention. These findings suggest that many students alternate the reading strategies they use in accordance with reading task, some features of the text, and reading purpose; and students' awareness of the flexible use of reading strategies congruous with several criteria increased. About the factors influencing the strategies students used, a participant said that s/he alternated his/her strategies only according to the difficulty of text before the intervention;

P3-Pre (557-560). "If it is something that appeals to me, if it has an easy title, I mean if I recognize the words in it, something that I can understand, then I read it and make a mental summary of it. However, if the title and beginning sentences are difficult for me, first I clarify all the unknown vocabulary, and then I move on with reading, then I again mentally summarize the text."

The same participant stated that text difficulty, the existence of questions below the text, text type, and text topic are the factors that guided her/him to use appropriate reading strategies after the intervention;

P3- Post (725-728): "For instance, if there is a statement that I can't figure out, then I read it loudly. There are some other strategies as well; If there are questions following the text then I employ selective attention, previewing, and scanning. If there is no question, and the text is a kind of article, then, as I said earlier, I go sentence by sentence, and translate it. If there is a vague statement for me, then I read it aloud... P3-Post (744-748): if it is something that I'm interested in, for example language use, or foreign language, then I read it quickly."

As obvious from the sentences in the quotations, students began talking about the strategies and the conditions for strategy alternation more in detail and by mentioning the names of strategies after the intervention.

In conclusion, students' opinions about the reading strategies they used point that students began alternating strategies and that they gained a high level of awareness of the strategies they used and practiced during the intervention, they became well aware of strategy type to be used.

Conclusion and Suggestions

In this study, students' opinions about the effect of reading strategy instruction based on CALLA on reading comprehension and strategy use were examined through data obtained before and after the intervention. The findings related to reading comprehension revealed that students gave a more detailed picture of their level of reading comprehension and that they became more aware regarding their reading comprehension after the intervention. Furthermore, it can be said that while participants' reading comprehension level increased and that the problems they experienced during reading decreased according to students' opinions. Therefore, it can be suggested that reading

strategies instruction based on CALLA had the positive effect on students' reading skills. This result is parallel with the studies of other researchers which examined the effect of reading strategy instruction based on CALLA on reading comprehension level in higher education (Arpacioğlu, 2007; Çubukçu, 2007; Karbalaei, 2011; Takallou, 2011). However, in these studies the effect was measured through quantitative data. As one of the aims of strategy instruction is to provide the tools to self-diagnose their strengths and weakness in language learning (Cohen, 2003), it is important to know to what extent the strategy instruction model achieved to this aim. According to the findings of the present study, it can be suggested that reading strategy instruction based on CALLA had positive effects on students' awareness about their strengths and weakness in reading.

The findings related to strategy use suggest that the number of strategies students used increased and that they became more aware of the strategies they used and the factors influencing their choice of strategies after the intervention. All point that reading strategies instruction based on CALLA has positive effects over students' strategy use and strategy awareness. These results are consistent with those of the studies carried out in higher education (Arpacioğlu, 2007; Kantarcı, 2006; Takallou, 2011) in which the effect of reading strategy instruction was examined through quantitative data obtained from questionnaires and/or qualitative data obtained think-aloud protocols which "provide data through verbalization of what is being thought during a particular task" (Bouvet, 2002). In the present study, semi-structures interviews were used before and after the intervention in order to reveal students' opinions about their strategy use. Semi-structured interviews allowed to obtain deeper information about students' strategy use than questionnaires which are commonly used in order to reveal information about strategy use. Think-aloud protocols reveal valuable information about strategy use. However, this information could be more related to strategies used for a particular task. In the present study, semi-structured interviews provided information about more general strategy use because participants are asked to describe their strategy use in various situations. Therefore, according to the findings of the present study, it can be suggested that reading strategy instruction based on CALLA had positive effect on students' general strategy use and strategy awareness in L2 reading.

Under the light of the findings of the present study and previous studies, it may be suggested to design reading strategies instruction based on CALLA for students learning L2 in higher education. However, these results of the present study should be interpreted by taking into account its limitations. Given the design and the small sample of the study, it is not possible to generalize its findings. Therefore, in order to generalize the findings of the present study, there is a need to carry out more studies in different settings by using different research designs. These studies in language learning would be beneficial for implementing more effective strategy instruction and extending strategy instruction in language classes.

Lastly, administering strategy instruction in an integrated manner with L2 teaching would necessitate training language teachers about it. Thus, it is suggested to organize educational activities where language teachers and teacher candidates can be informed about strategy instruction.

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