

Test Takers' Strategies in completing a cloze Test

Sorayya Vahidi

University of Tehran, Faculty of Foreign Languages

e-mail: sovahidi@ut.ac.ir

Abstract

This study investigates the reception strategies employed by EFL learners while completing a cloze test. It presents the strategies they used and how they arrived at a solution to the gaps. Data was collected via semi-structured interview and think – aloud technique. The data was analyzed on the basis of the categories of general scheme of cognitive learning / reception strategies proposed by Rubine (1987), in terms of type and frequency. The study revealed; (a) the effect of monitoring strategies on their performance; (b) the contribution of translation into first language on the task, and (c) the use of multiple strategies on “demanding items”. Other findings have also been discussed to give a better picture of their strategic performance during the course of performing on the task.

Kay Words: Learning strategies, Test Takers Strategies, Language Test, Cloze Test, Think – aloud Technique, Interview.

1. Introduction

Cloze is a procedure in which every n th word of a passage is deleted and the reader is asked to supply the missing word. The word cloze is reminder of the law of closure, completing a pattern, which is one of the main concepts in "Gestalt psychology". Developed by W. Taylor in the early 1950s as a means of assessing readability of text, it was soon being used in second language (L2) situation, both as a reading activity and as a test. Cloze has obtained its popularity and fame due to numerous reasons such as being easy to device, administer and score. Cloze procedure as an integrative pragmatic measurement device has attracted a great majority of researchers, and a large amount of research has been conducted on almost all aspects of this procedure. The aim of this case study is to follow earlier research on cloze test by providing a picture of how a group of Iranian EFL learner uses strategies in performing on a cloze test.

2. Theoretical Framework

Recently, there has been a shift of attention from language teaching methods and materials to the language learners and language learning. In this shift of emphasis in the field of second language acquisition, EFL learners received a large amount of investigation from the researchers. Since then, researchers have investigated the possible influence of learner's characteristics on the process of language learning. As a result, many researchers concentrated their objectives on defining and establishing lists of personality traits, cognitive styles and strategies to characterize language learners in terms of their learning behavior.

This area of research has received attention by Rubin in the United States and Naiman, Frohlich and Todesco in Canada. Their research has centered around five main areas of issues:

- 1- Good learners' learning strategies (e.g. Rubin, 1975; Naiman et al, 1976)
- 2- Differences in English using strategies between good and poor learners (e.g, Huang and van Naersson, 1985; Abraham and Vann, 1987.
- 3- The relationship between the use of strategies and language achievements (e.g., Bialystok, 1981; Politzer and McGroarty, 1985);
- 4- Factors of affecting use of strategies (e.g., Bialystok, 1981, Weden, 1987); and
- 5- Training of strategies and measurement of the effects (e.g. O' Malley and Chamot, 1996; Oxford, 1990).

Early research on second language learning strategies, as just mentioned, has been broad and general in nature, but has paved a way for future research. In early list of these findings, there was no distinction among personal characteristic, style, and strategies (Rubin, 1975; Stern, 1975; Hosenfeld 1977; Naiman et al., 1978). These early researchers tended to make lists of strategies presumed to be essential for all good language learners for instance, by means of observation and interviews with learners and teachers. Hosenfeld (1976) introduced the "think-aloud" introspective process to determine what strategies learners use while performing language tasks. Research in to what learners do to learn has resulted in the identification of specific strategies and in attempts to classify them in some way. Accordingly

learning strategies have been broadly defined as “specific action or techniques that students use, often intentionally, to improve their progress in developing L₂ skills” (Green and Oxford 1995: 262). However it is argued that the definition commonly used doesn’t fully convey the excitement or richness of learning strategies (Oxford 1990).

Different researchers have classified their lists of behavior according to various criteria, and findings of the studies in the field. Among them O’Malley and Chamot (1985) identified learner’s strategies according to cognitive style and their performance into three main categories: “Cognitive strategies”; “metacognitive strategies” and “socio/ affective strategies. However main parts of these attempts were devoted to characterize learners as good learners”: they assumed that it might be possible to use successful behavior for training less competent learners. O’Malley et.al. (1985) also suggested that both cognitive and meta-cognitive learning strategies, specially when they are identified and successfully taught could be effective and potential strategies in learning behavior. Then it is worth to mention that, the most general finding among the investigation of language learning strategies is the assumption that strategy training may lead learners to improved proficiency (Wenden and Rubin 1987).

Since teaching and testing methods are interdependent to one another, the reflection of any shift in teaching methodology is expected and observed in any evaluation procedure. Accordingly, language-testing researchers began discussing processes of test taking in terms of test takers action to different items. Cohen was one of the first who reported on the examination of perceived strategies employed by examinees. He has investigated the processes involved in taking language test and identified several reception strategies followed in completing a cloze test. The reports concluded guessing, using the immediate context and translating as the strategies used by learners in the studies (Bachman, 1990). Apart from studies reported by Cohen, other studies also conducted to investigate the interaction of the test takers to various task in terms of strategy processing and findings relevant to this issue (Cohen, 1987).

Wearn (1982 a, 1982 b, 1985 in Alvi 2005) conducted a study on cloze test to identify test takers’ strategies in interpreting unfamiliar words or suggesting a word for the gaps. In that study he elicited some strategies chosen for interpretations of unfamiliar words. Nevo, (1989: 200) also investigates the processing of reading comprehension tests in the first language as compared to the target language, and to ascertain the cognitive strategies used by the respondents when taking test” (Alavi 2005).

In another research Anderson (1991) examined the individual differences in strategy use by adult second language learners. Rezaie (2005) investigates the effects of applying test-taking strategies on the language test performance of Iranian EFL learners. The results of this study reveal that indeed there was a high correlation between subjects’s totals scores in the achievement test and their score in the questionnaire. He further reports different degrees of tendency in using test-taking strategies in the various sections of the test.

Rubin (1981, 1987) identified three kinds of strategies that contribute directly or indirectly to second language behavior: “learning strategies”, “communication strategies”,

and “Social strategies”. In the review of related literature, another category has also been suggested by Faerch and Kasper (1987), that is, “perception strategies”. They believe that learning strategies and perception strategies seem important to the completion of a cloze exercise. According to Faerch and Kasper (1983) learning strategies are; “potentially conscious plans for solving what to an individual presents itself as a problem in reaching a particular ... goal”. Reception strategies used by learners in order to solve problems they face in receiving a message. Learners carry reception strategies in an attempt to decode input and drive meaning from the text. However research on this type of strategies has concentrated greatly on strategies in reading skill. These studies led to the identification of certain key strategies used by learners to access meaning:

- a. Inferencing / Guessing/ Inductive reasoning;
- b. Monitoring in the broad sense of the term;
- c. Practicing
- d. Looking for patterns in the surrounding language text / deductive reasoning (J. H Black, 1993).

3. Purpose of the Study

In spite of the increasing popularity of research on learning strategies since the mid 70s, the topic of learning strategy is still a new research in Iran in EFL context either in high school or university. It is assumed that the learners may develop their own understanding or models of the foreign language. They do perform many tasks in the classroom. However, they are not asked systematically to describe in detail how they proceed in performing them. Hosenfeld (1976 in Kyung Ok 2003) described, that teachers focus upon the results but rarely upon learning strategies that students use to arrive at the results and they spend comparatively little time talking to learners about their learning and performance on a Test. Rezaei (2005) states “performance on language tests can be improved if both language teachers and test designers have a better insight into different strategies that the students apply”. He also believes that if students have effective test-taking strategies, they will simply be able to achieve their test-taking skills that improved results by utilizing strategies.

The sense of frustration felt by students while taking tests is sometimes intensified when they are given a cloze test to perform on. Frustration could also come about as the result of a limited or, underutilized effecting cognitive or metacognitive strategies (Rodolico 2002). Thus, it is suggested that an understanding and awareness of learners’ strategies may provide valuable insight in to the process of language learning and testing (Oxford 1990).

The purpose of this research is to discover through verbal protocols (think-aloud), what strategies test takers use in performance on language test. Specially on cloze test; “cloze” seems more demanding for Iranian EFL learners than other measurement devices such as commonly used multiple choice test.

4. The study

Research design and procedure

The present study intends to identify and investigate a small group of EFL learners use of strategies on a cloze task. The study picturized the strategies used and how they were employed by the subjects.

Participants in this study are 19 undergraduate EFL students taking reading comprehension III at Shiraz University, The participants are randomly selected and were of varying degrees of L2 proficiency. Ten of the subjects are females and 9 males ranging in age from 19 to 25. However, Sex and age are not considered in this study.

Materials and procedures: Materials for instrumentation comprised two cloze Tests (A & B) utilized in 2 experiments; Cloze test A was adapted from a textbook with the material approximately similar to those already practiced; it was expected the subjects might not have seen previously. The test was devised on the basis of the pattern of a standard cloze test. It contained 25 items with every 7th word deleted, leaving the first and the last sentences intact. The reliability of the test was estimated by test-retest procedure ($r=0.83$). As the validity of the test, construct validity and face validity have been considered. In terms of construct validity, Backman (1990) suggests that information processing approach through self-verbal data as a means of investigating of the process of construct validation. He says: "... To better understand what test takers actually do when they take a test, and hence, what it is that our language tests actually measure, it is clear that this approach has a great deal of potential for providing evidence for construct validation..." Adherence to this proposal, i.e., Information processing theory, would support the construct validity of the test. Since test appearance is a very important consideration in test use, face validity has been also considered in this study. To produce this validation, the subjects were asked in terms of the appeal of the test. Their positive views and familiarity with the test supported the face validity of the test too.

Cloze test B was similar to cloze test A in terms of overall characteristics, except for the level of difficulty; Test B was of a higher difficulty level and with a passage adapted from a scientific journal.

Data collection was done through two experiments: Experiment A and experiment B:

Experiment A: data was collected by means of a semi-structured interview after the administrating of test A. The subjects were interviewed at short intervals of 2 and 3 days. Each subject was provided with his or her own test paper so that s/he would remember the processes s/he was engaged in, while trying to fill in the gaps. Meanwhile s/he was asked to report on how s/he had come up to the possible answer. It was tried to provide a situation in which the subjects express themselves more explicitly. The interviews were written recorded. Each interview session lasted between 20 to 25 minutes.

Experiment B: the second part was an attempt to extend the first study to make sure of adequate data information. This experiment was tried via think – aloud technique with 7 subjects, the test utilized in this experiment was cloze test B. This test was basically devised to reflect more demanding items in order to investigate how subjects would cope with such

items. The subjects were asked to think aloud in Farsi while completing the cloze test. Meanwhile, they were intervened with clarifying questions where necessary. Each think – aloud session was audio taped and lasted between 30 to 40 minutes.

The recorded and written verbal report data were separately transcribed and analyzed for the strategies used by the subjects in the study. The protocols were carefully coded on the basis of a general scheme of cognitive learning / reception strategies proposed by Rubin (1987); Abraham and Vann (1990). This adapted general cognitive schemes included 5 main categories with same sub-categories.

Rubin (1981) proposed a classification scheme that subsumes learning strategies under two primary grouping and a number of subgroups. The groups used in this study are of Rubin's first primary category, consisting of strategies that directly affect learning. This adapted general cognitive scheme is

- A. Clarification / verification;
- B. Monitoring and evaluation;
- C. Inductive inferencing strategy;
- D. Deductive inferencing; and
- E. Repetition.

Within this framework, the study-identified substrategies used by subjects on the task and determined the frequency and distribution of their use. Strategy use was distinguished from each category on the basis of the frequency of strategies used while completing the cloze test. The study used just four of the categories, because too little information was reported on category five (only one of the cases favored repetition strategy), and to investigate just those sub-categories, which have been observed. To obtain some indication of the reliability of data analysis a check was made on the analysis of data. This was done through assessing intra-rater reliability. An acceptable degree of agreement did exist between the first and the second analyses. This established an indication of the reliability of the analysis of data. Then, chi-square test conducted on the data to test the significance of the differences among the strategies used by testers on the task.

Results

The results of data analysis of the two experiments were compared. They were almost in agreement with each other. Experiment B advantages just for providing a more clear detailed information. Since no significant difference was observed between the overall outcomes, the experiments are interpreted and reported simultaneously. Table 1 (A and B) and Table 2, illustrate the distribution of the reception strategies by the subjects in completing a cloze test in this study.

Table. 1 (A): Distribution of the reception strategies by the subjects

Subs	Count Raw Pct Col Pct Tot Pct	Sub cat 1	Sub cat 2	Sub cat 3	Sub cat 4	Sub cat 5	Raw Total
1		35	27	32			94
Rec Start 1		37.2	28.7	34.0	—	—	29.3
		52.2	34.2	33.0			
		10.9	8.4	10.0			
2		12	14	13	56	13	108
Rec Start 2		11.1	13.0	12.0	51.9	12.0	33.6
		17.9	17.7	13.5	84.8	100.0	
		3.7	4.4	4.0	17.4	4.0	
3		2	10	51	10		73
Rec Start 3		2.7	13.7	69.9	13.7		22.7
		3.0	12.7	53.1	15.2		
		.6	3.1	15.9	3.1		
4		18	28				46
Rec Start 4		39.1	60.9				14.3
		26.9	35.4				
		5.6	8.7				
Column Total		67	79	96	66	13	321
		20.9	24.6	29.9	20.6	4.0	100.0

Table 1 (B): Frequency of use of Strategies (total & percentage)

Cases	Frequency	Percent	Valid Percent	Cum Percent
1	46	14.3	14.3	14.3
2	45	14.0	14.0	28.3
3	55	17.1	17.1	45.5
4	34	10.6	10.6	56.1
5	32	10.0	10.0	66.0
6	47	14.6	14.6	80.7
7	62	19.3	19.3	100.0
-----	321	100.0	100.0	-----

Table 2: Frequency of use of reception strategies in terms of percentage

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Rec Start 1	1	165	29.4	29.4	29.4
Rec Start 2	2	180	32.1	32.1	61.5
Rec Start 3	3	147	26.2	26.2	87.7
Rec Start 4	4	69	12.3	12.3	100.0
	TOTAL	561	100.0	100.0	-----

It confirms earlier research findings that EFL Learners use a variety of strategies in coping with problem solving, particularly on a cloze task. A careful look at table 1, together with 2 and 3, which indicated the frequency of use of each category in terms of percentage, does show different distribution pattern of strategy use. The majority portion of the frequency use is devoted to strategy B, “monitoring and evaluation.” This finding shows the importance of checking answers by the learners. Within this category, subcategory – check the appropriateness of the possible answer by translation to L₁ shows itself as the most frequently used strategy among the others. Strategy A, “clarification and verification” appears to be the second major one in terms of frequency use. As the tables show the two other reception strategies were relatively used by the subjects in closing the gaps. Tables 3 and 4 illustrate the

total frequency use in terms of percentage for subcategories and main categories as well.

The subjects effectively used strategy A, “clarification / verification” in order to understand the text. In this way they were trying to build up a mental representation of the passage. Here, strategy A1- Translating into L1 words directly preceding or following the blanks – has received a high degree frequency among the three types of subcategories. It could be due to local redundancy demonstrated by the subjects during their performance. Some of them focused heavily on immediate context of an item and used translation to L1. The subjects using this type of strategy were not able to establish an overall schema of the Text. Whereas those who moved beyond a sentence and used inter-sentential strategies such as – focusing on the contextual clues- were more capable of keeping the track of meaning to find the answer. It seems that the subjects were mostly dependent on contextual surrounding of the items and L1 translation.

Table 3: Frequency use of reception strategies (category B)

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Rec Start 1	1	165	29.4	29.4	29.4
Rec Start 2	2	180	32.1	32.1	61.5
Rec Start 3	3	147	26.2	26.2	87.7
Rec Start 4	4	69	12.3	12.3	100.0
TOTAL	----	561	100.0	100.0	----

“Monitoring / evaluation” strategy was the major strategy by which the learner tried to find a solution to the given problems. This strategy demanded a control of the form, and the meaning of guessing answer. To accomplish a conclusion, the subjects used strategy - check the appropriateness of the possible answer by translation to L1-more frequently than the others within this category. Other sub strategies were also used relatively with the same portion in two experiments (A & B). It seemed that employing monitoring strategy brought the subject about a self-correction and made them to decide more confidently and precisely.

“Inductive inferencing strategy”, categories A, was the one, which helped the subject to achieve an overall comprehension of the text. This was the strategy by which the testers could yield a conclusion. Employing sub-strategy- inferring meaning from context and other clues – in this category made the subjects overcome their comprehension problems and led them to make a contextual guessing. The role of textual clues, schematic knowledge was evident in using this specific strategy in performing the task. In using “Deductive Inferencing strategies”, category, the subjects noticed the important syntactic clues surrounding a blank in the tests. They knew how to analyze and use their information in order to arrive at a correct deduction.

Table 4: Frequency use of reception strategies (category A.)

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	94	29.3	29.3	29.3
	2	108	33.6	33.6	62.9
	3	73	22.7	22.7	85.7
	4	46	14.3	14.3	85.7
TOTAL	----	321	100.0	100.0	100.0

Investigating the strategy use revealed the contribution of L1 Translation in solving the problem. Accomplishing item solution did not always involve the use of strategies: When the answer was obvious to the subjects they automatically filled the blanks. But when they faced a more demanding item they used a combination of strategies. They rarely used a single strategy on the task. This was revealed by the analysis of the “think aloud” data more distinctively. Even for the automatic item solution they sometimes used a type of monitoring strategy depending on their strategic behavior. They solved the problem through the use of a specific “strategy cluster”.

The given data indicated that learners’ strategic performance on a cloze text varies in terms of frequency and type for the two studies, chi-values reported in table 5 are significant at the .05 level supporting the findings of the study.

Table 5: Chi – Square Table

Reception Star	Category	Cases Observed	Expected	Residual
Rec Start 1	1	165	140.25	24.75
Rec Start 1	2	180	140.25	39.75
Rec Start 1	3	147	140.25	6.75
Rec Start 1	4	69	140.25	-71.25
TOTAL	----	561		

Chi-Square
52.155

D.F.
3

Significance
.000

5. Conclusion

This study revealed that all subjects used a wide variety of strategies in attempting to fill in the blanks of the cloze tests. It found what strategies the learners favored and how they were applied:

A. “Monitoring strategy” was the most commonly used strategy by the subjects. This strategy involved metacognitive control, which reflects their metalinguistic awareness and their competence to think and talk about language.

B. the contribution of first-language based strategy override that of the second-language based one. It is discussed that this strategy correlated with poor scores. However in this study the reliance on native language led the subjects to successful solution; there were a few who did not trust to their first language.

C. local redundancy and using immediate context were also observed. Employing translation and immediate context was in agreement with Cohen’s findings (1984), that the learners use these two strategies along with guessing in completing a cloze test.

D. Multiple strategy use was the way by which the subjects accomplished more demanding items. In almost all the cases of filling the blanks, strategies were used in cluster.

E. While all subjects did utilize various types of strategies, only some of them could manage a successful conclusion conveniently.

This could be due to the lack of coherence in employing the strategies and the choice of an appropriate and effective strategy. It was demonstrated that some of the subjects did use a type of strategy, while s/he was unaware of it. The choice of an appropriate and effective strategy appeared to be a demanding task to some of the subjects. Cognitive style is defined a way that people “perceive, conceptualize and organize information”, which often determine the choice of strategies in language learning behavior; while analytic-style learner prefers abstracting information from a text, holistic cognitive-style one considers the whole information to comprehend a text. Accordingly, further studies are needed to investigate strategy training. It might help the learners to move beyond their cognitive style boundaries to use new strategies unrelated to their own style. This might lead them to manage a task and control the necessary strategies for successful item solution.

References

- 1- Abraham, R. G, & Vann, RJ. “Strategies of two language learners: A case study. In A. Wenden, & J. Rubin (Eds.), *Learner strategies in language learning*. Pp. 85-102. Englewood Cliffs, NJ: Prentice Hall, 1987.
- 2- Alavi, S.M., On the adequacy of verbal protocols in examining an underlying construct of a test *Pazhuhesh-e zabanhaye khareji* (a research journal of faculty of foreign language, University of Tehran), 20. 2005.
- 3- Anderson, N., Individual differences in strategy use in second language reading and testing, *Modern language learning*, 75: 466-472, 1991.
- 4- Bachman, L. F. *Fundamental consideration in language testing*. Oxford: Oxford University Press, 1990.
- 5- Bailystock, E., The role of conscious strategies in second language proficiency. *Modern language Journal*, 65, Spring, 24-35, 1981.
- 6- Cohen, L., and Lawrence M., *Research Methods in Education*. Printed in Britain by Mackays of Chatham PLD, Chatham, Kent, 1984.
- 7- Faerch, C. and Kasper, G., (eds.), *Plans and strategies in foreign language Communication*. In C. Faerch and G. Kasper (eds.). 280-301, 1983b.
- 8- Hosenfeld, C., Learning about learning: Discovering our students’ strategies. *Foreign language Annals* 1, 117-129, 1976.
- 9- Hosenfeld, C., A preliminary investigation of the reading strategies of successful and unsuccessful second language learners. *System* 5, 116-23, 1977.
- 10- Hung, X and Van N. M., Learning strategies for oral communication. *Applied linguistics*, (3): 287 – 307, 1985.
- 11- Kyunng Ok, L., The relationship of school year, sex and proficiency on the use of leaning strategies in learning English of Korean junior highschool students. *Asian EFL. Journal*, September, 2003.
- 12- Naimen, N., M. Frohlich and Todesco A., The good language learner. *TESOL Talk* 6 (1): 58-75, 1976.
- 13- Nevo, N., Test taking strategies on a multiple choice test of reading comprehension. *Language Testing*, 6: 199-215, 1989.
- 14- O’ Malley, J., and Chamot A., *Learning strategies in second language acquisition*. Cambridge:

- Cambridge University press, 1996.
- 15- O' Malley, J. et.al. *Learning strategy applications with students of English as a second language*, 1985.
 - 16- Oxford, R. L., *Language Learning strategies*. What every teacher should know New york: Newbury House / Harper 8 Row, 1990.
 - 17- ———, Research on second language strategies. *Annual Review of Applied Linguistics*. B, 175-187. Printed in the USA. (Cambridge university press), 1993.
 - 18- Politzer, R. L. and McGroarty, M., An exploratory study of learning behaviors and their relationship to gain in linguistic and communicative competence. *TESOL Quarterly*, 19, (1), March, 103-123, 1985.
 - 19- Rezaei, A. A., Test-taking strategies and performance in language achievement test. *Pazhuhesh-e Zabanna-ye Khareji*, (a research journal of faculty of foreign language, University of Tehran), (20), 2005.
 - 20- Rodolico, J. T., Teaching cognitive learning strategies and vocabulary testing. *Hwa Kang journal of TEFL*., May, 2002.
 - 21- Rubin, J, Learner strategies. Theoretical assumption, research, history and typology. In A.L. wenden and J. Rubin (Eds.) *Learner Strategies in Language learning* (pp. 15-30) Englewood Cliffs. NJ: prentice Hall, 1987.
 - 22- ———, What the good Language Learner can reach us. *TESOL Quarterly*, 9, (1), 41-51, March 1975.
 - 23- ———, Study of cognitive processes in second language learning, *Applied linguistics*, (11), 118-31, 1981.
 - 24- Stern, H.H., what can we learn from the good language learner? *Canadian Modern anguage Review*. (31), 304-318, 1975.
 - 25- *TESOL Quarterly*, 19 (3), 557-584, 1985.
 - 26- Vann, R.J. and Abraham, R.G., Strategies of unsuccessful language learners. *TESOL Quarterly*, 24, (2), 177-198, summer 1990.
 - 27- Waern, Y., How do you fill in this *****? On some interpretation processes. In Flamer, A. and Kinstch, W. (eds.). *Discourse processing*, (pp: 152-165). Amsterdam: North Holland, 1982a.
 - 28- Wenden, A, and Rubin, J. *Learner strategies in language learning*. Englewood cliffs, N.J: Prentice Hall, 1987.