

Test-taking Strategies and EFL Learners' Performance on the Reading Sub-test of Iranian Universities PhD Entrance Exam

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Abstract

The present study was an attempt to investigate the validity of the English section of Iranian Universities PhD Entrance Exam in TEFL. To this end, 15 EFL learners from university of Isfahan who were in their last semester of that MA education were invited to contribute to the study. A group of 5 university lecturers were also asked to support the study as expert judges. A TOEFL reading paper was used to divide the participants into three ability groups, each consisting of five learners. Think-aloud study was used to find out the strategies each ability group used when completing the test. All the participants completed the reading section of the PhD Entrance Exam while verbalizing their thoughts. The verbal reports were transcribed and coded based on Barati's (2005) taxonomy of Test-taking strategies. The Chi-square analysis of the think aloud protocols revealed that Monitoring and Evaluation strategies were used significantly more than other strategies by all ability groups. Moreover, the results indicated that the high ability group of test takers were more successful compared with others in maneuvering among different type of strategies. Further, different patterns of strategy use were observed in the three ability groups. The findings of the present study may be of interest to the PhD Entrance Exam developers as well as EFL material designers and classroom instructors.

Keywords: Strategy, Test-taking strategies, taxonomy, Think-aloud Protocol, validity

Introduction

One of the Iranian high-stakes tests administered annually to assign the scarce seats to studying in the Ph.D. program at state universities is the Ph.D. Entrance Examination (PEE). An important part of the PEE is the general English part of it administered to all candidates. (Abbasian Boroojeni, Tavakoli, & Vahid dastjerdi, 2016). As PEE is used to examine candidates' readiness for higher studies and determine one's educational career, validation studies on its test-related factors to improve its qualities seem invaluable.

Test-taking strategies are used in language test as part of the process of construct validation (e.g., Phakiti, 2008; Purpura, 1999). The importance of exploring test-taking processes for making a valid judgment about the construct to be measured was emphasized by Bachman (1990), Bachman and Palmer (1996, 2010). They thought recognizing different sources of score variation draws reasonable inferences about the individuals' ability. This has its own effect on test performance and leads to improving test validity (Dodeen, 2009).

Review of Literature

Test-taking strategies are metacognitive or language use strategies that test-takers employ while taking a test. Phakiti (2003) defined test-taking strategies as metacognitive strategies intentionally used by the test-takers for successful performance on the test, through directing and

controlling their cognitive strategies. In addition, Hirano (2009, as cited in Pour-Mohammadi & Zainol Abedin 2011, p. 237) says:

“There are basically distinct types of strategies that respondents use as they do language tests: 1) language learner strategies (the way learners operationalized their basic skills of listening, reading, speaking and writing including the related skills of grammar, vocabulary, and translation), 2) test management strategies (i.e., “strategies for responding meaningfully to the test items and tasks”, and 3) test wiseness strategies (i.e., “strategies for using knowledge of test formats and other peripheral information to answer test items without going through the expected linguistic and cognitive processes”).

Language use strategies and test-wiseness strategies are the components of test-taking strategies (Cohen, 1998). Language use strategies include actions that individuals consciously take to carry out language tasks through improving the use of a second language or foreign language.

To store, retain, recall, and apply the information for use during the test, examinees usually need to use four types of language use strategies (retrieval, rehearsal, cover, and communication strategies) in a testing situation.

A number of studies have been conducted on test-taking strategies (e.g. Anderson, Bachman, Perkins & Cohen 1991; Block 1992; Purpura 1998; Phakiti 2003; 2008, Barati 2005; Cohen 2010). Barati (2005) for instance assessed test-taking strategies in adult EFL learners. In that study, he employed quantitative and qualitative research in order to examine the effect of Test-taking strategies on the learners' reading test performance. The results showed significant effect of test-taking strategies on the reading skills test performance of all ability groups who participated in that study. Barati, however, suggested that strategies did not always have positive effects on the test takers' performance but rather there were cases where they affected the test results significantly negatively (e.g. test wiseness). The findings of that study also revealed that using test-wiseness strategies were significantly employed by less able test-takers more frequently than other ability groups.

In another study, Salehi (2011) investigated test-taking strategies of 40 Iranian test-takers in the reading section of University of Tehran English Proficiency Test. The purpose was to see if there was any concordance between the type of strategies and the item types in the reading comprehension passages. For instance, if the strategy of guessing was used on inference items, this would put the validity of the item at risk because there was a mismatch between the purposes of test-makers and those of test-takers (Cohen, 1984). The findings of that study revealed that for most item types the expected strategies were used.

In a more recent study, Kashkouli, Barati, and Nejad Ansari (2015) examined the test-taking strategies employed to answer the Iranian National University Entrance Exam for MA in TEFL. The findings revealed that from among all participants, the intermediate group used test-taking strategies more than others. The results also showed that monitoring and evaluation were used significantly more than other strategies. Those researchers came to the result that test-takers relied more on their academic reading skills for both specific and general comprehension of the texts rather than on their background knowledge or test-wiseness strategies.

Although several studies have been conducted on the Iranian UEE, it seems validating PhD Entrance Exams have been greatly ignored. It should be noted that in order to make sound judgments about these tests, they need to be validated. In other words, language tests are designed to measure an individual's language ability, but if the test-takers' counter validity strategies (Bachman 2004) influence his or her performance on the test, then the conclusion is that the measurement of the individual's language ability is under question. (Wanger, 2006 as

cited in Kashkouli et.al 2015). The present study used think-aloud protocols as the technique for examining the validity of the Iranian PhD Entrance Exam.

This study presumed that provided strategies in favor of validity are used by the test-takers significantly more than those categorized as counter valid (Bachman 2004, Wanger 2006), the validity of the test is supported. Otherwise the test will be under question as far as its validity is concerned.

Research Questions

RQ1. What strategies do Iranian EFL test-takers use when completing the reading sub-test of the English section of PhD Entrance Exam?

RQ2. Is there any significant difference in the frequency of test-taking strategies employed by Iranian EFL test-takers when completing the reading sub-test of PhD Entrance Exam?

RQ3. Is there any pattern of strategy use extractable for various-ability-group test-takers when completing the reading sub-test of the Iranian EFL PhD Entrance Exam?

Methodology

Participants

In order to select the final participants of the study, 50 Iranian male and female MA students were selected randomly. They studied at University of Isfahan. Their age ranged between 23 and 32. They were majoring in English Teaching, English Translation and English Literature. All the students were in their final semester of MA. Fifteen individuals were chosen based on their scores on TOEFL Reading paper. They were divided into three ability-groups. Five students who scored more than 1 standard deviation above the mean were grouped as high ability test-takers. Five other participants whose scores were lower than 1 standard deviation below the mean were grouped as low ability test-takers. And, finally 5 test-takers who scored near between .75 standard deviations below and above the mean were grouped as intermediate. Table 1 summarizes the specifications of the learner participants of the present study.

Table1. Specifications of learner participants

Groups	TOEFL Academic Reading	
Number of participants	Band Score (Max 21)	
Group A (High ability)	18 and higher	5
Group B (Intermediate Ability)	15 & 16	5
Group C (low ability)	12 and lower	5

Instruments

For the purpose of data collection, three instruments were used: 1) A TOEFL reading paper, 2) The reading section of Iranian PhD Entrance Exam, 2016, and 3) A taxonomy of EFL Test-taking strategies (Barati 2005). The TOEFL reading paper consisted of two reading passages of about 700 words and followed by 21 multiple choice items. The reading section, of the Iranian PhD Entrance Exam was composed of two reading passages one with 435 words and the other with 608. Each text was followed by 10 multiple choice questions. The items in the PhD Entrance

Exam were checked for what they measured by a group of expert judges. The majority of the expert judges decided most of items measured test takers' ability of "inference". The third instrument used in this study was a Taxonomy of EFL test-taking strategies (Barati, 2005). This included 41 Test-taking strategies which were categorized into Planning (P1-P4), Monitoring (M1-M17), Evaluation (E1-E8), and Test-Wiseness (T1-T12). The definition for each category of strategies is presented below:

Planning (test-takers' previewing or overviewing tasks in order to determine what actions to be done (Phakiti, 2003), advanced organization, directed attention and self-management)

Monitoring (a response to ambiguity in comprehending the language (Anderson, 1983), checking comprehension, accuracy and/or appropriateness of action while it is taking place)

Evaluation Checking comprehension after completion of a receptive language activity, or evaluating language production after it has taken place (O'Malley and Chamot, 1990)

Test-Wiseness Strategies related to the knowledge of how to take the test (Cohen, 2013).

Barati's (2005) taxonomy was put into practice but was later modified in terms of some of its strategies: Three strategies were added to the Monitoring subsection and Evaluation subsection also went through some changes. Therefore, the final taxonomy included 47 Test-taking strategies categorized as Planning (P1-P4), Monitoring (M1-M20), Evaluation (E1-E11), and Test-wiseness (T1-T12). The final taxonomy is presented in the Appendix.

Before conducting the main study, the instruments were piloted on 10 participants studying in their last semester of MA. The pilot study was carried out for the following reasons:

1. To examine the amount of time required to complete the TOEFL test and the Reading subtest of the PhD Entrance Exam
2. To estimate the reliability of the instruments
3. To make sure the TOEFL test was appropriate for the level of the participants
4. To make sure there was no ambiguous word or phrase in the instructions.

Procedure

Data collection was done in two phases. In the first phase the participants answered the TOEFL test as the indicators of their ability. The second phase of data collection was of a think-aloud study. Each individual verbalized their thoughts while completing the reading sub-test of the PhD entrance exam. This phase of the study was held separately for each individual. The think aloud study included a training stage and a main stage. Each think aloud session took about 45 minutes. The respondents' verbal reports were recorded and then transcribed and coded based on the taxonomy of EFL test-taking strategies. The reliability of the coding process was estimated via inter-coder reliability estimation. The two experts who performed the coding task, did it independently. They were asked to use the taxonomy of Test-taking strategies for classifying the strategies reported in the think-aloud protocols. When both raters completed the task, the results of their estimation were correlated by using kappa coefficient to estimate inter-coder reliability coefficient. It was .78.

Results

Types of strategies used

To address the first research question, the test-takers' verbalization of thoughts were analyzed in detail. This necessitated recording, transcribing, segmenting, coding and analyzing the thought verbalized by the individual test-takers.

The results indicated that a total number of 1235 strategies were used by the three ability groups of this study. The most frequently used strategies were Monitoring, Evaluation, Planning and Test-Wiseness, respectively. Table 2 and Figure 1 below show this in more details:

Table 2. *Distribution of strategies used by the three ability groups of the study*

Strategy	Frequency	Percent
Monitoring	600	48.6
Evaluation	363	29.4
Planning	180	14.6
Test-Wiseness	92	7.4
Total	1235	100.0



Figure 1. *Distribution of strategies*

As indicated, out of 1235 strategies, a total number of 600 (48.6%) Monitoring strategies were used by the test-takers. The three most frequently used strategies of this type were M14 (Paraphrase the text or items for better comprehension), M18 (Misunderstanding or lack of certainty), and M2 (Return to the text passage a second or more time to look for or confirm an answer). The second most frequently used strategy type was Evaluation. A total number of 363 (29.4%) Evaluation strategies were used by the test-takers in the three ability groups. The most frequently used strategies of Evaluation type were E5 (Evaluate understanding after reading the text, items and/or alternatives) and E6 (Evaluate the selected choice by giving reasons). Planning was the next most frequently used strategy by the participants in this study. A total number of

180 (14.6%) strategies of planning type were used by all the three ability groups. The most frequently used strategy of Planning type was P3 (Plan next section).

Finally, the three ability groups were shown to have used Test-Wisness strategies with the least frequency. A total number of 92 (7.4%) Test-Wisness strategies were used by the three ability groups. The most frequently used strategy of Test-Wisness type was TW4 (Use the process of elimination –e.i. select an alternative because the others did not seem similar or overlapping or because their meaning is not clear). Table 3 below shows the most frequently used Sub-strategies of each type by the three ability group of the present study.

Table 3. *The first three most frequently used strategies by each ability group*

Frequency of strategy.....	High ability.....	Intermediate.....	low ability
.....1.....	E5.....	E5.....	P3
.....2.....	M14.....	P3.....	E6
.....3.....	P3.....	E6.....	E5

1. E5=Evaluate understanding after reading the text, items and/ or alternatives

2: P3=Plan next section

3: M14= Paraphrase the text or items for better comprehension

4: M2= Return to the text passage a second or more times to look for or confirm an answer

5: E6= Evaluate the selected choice by giving reasons

Frequency of strategies used

The significance of differences among the three ability groups of this study was explored by running Chi-square analysis on the data. More details on this will be presented below.

Monitoring

As discussed above Monitoring was the most frequently used strategy by various ability groups of test-takers in this study. The results of Chi-square analysis revealed that among the three ability groups, it was the high ability who used Monitoring significantly differently. Table 4 below shows the significant differences among the frequency of Monitoring sub-strategies used:

Table 4. *Frequency of Monitoring Strategies used by three ability groups*

Strategy	High		Intermediate		Low		Chi-square	
	N	%	N	%	n	%	Statistics	Sig.
M1	42	61.8	20	29.4	6	8.8	29.059	0.000
M2	22	25.0	24	27.3	42	47.7	8.273	0.016
M4	25	67.6	6	16.2	6	16.2	19.514	0.000
M8	26	65.0	12	30.0	2	5.0	21.800	0.000
M11	22	55.0	13	32.5	5	12.5	10.850	0.004
M12	6	33.3	11	61.1	1	5.6	8.333	0.016

M14	85	72.6	24	20.5	8	6.8	84.667	0.000
M18	42	46.2	26	28.6	23	25.3	6.879	0.032
Total	311	51.8	171	28.5	118	19.7	99.430	0.000

As Table 4. shows, strategies used by the three ability groups were significantly differently in terms of Monitoring. In other words, high ability group used M1 (Use general knowledge in order cope with written material), M4 (Find the portion of the text that question refers to and then look for clues to the answer), M8 (Restate the text, item, and/or alternative language for better comprehension), M14 (Paraphrase the text or items for better comprehension) and M18 (Misunderstanding or lack of certainty) significantly more than other two groups and M12 (Highlight unknown or important words in the text or/and items for better comprehension) was used significantly by intermediate group. Moreover, low ability group used M2 (Return to the passage a second or more time to look for or confirm an answer) more than other two groups.

Evaluation

Chi-square analysis was also run on the frequency of strategies of Evaluation type used by the three ability groups of test-takers in this study. The results revealed that various sub strategies of Evaluation were also significantly differently used by the three ability groups. Table 5, below, presents the frequency of strategies of Evaluation type employed by test-takers:

Table 5: *Frequency of Evaluation Strategies used by three ability groups*

Strategy	High		Intermediate		Low		Chi-squared	
	N	%	n	%	n	%	Statistics	Sig.
E2	13	72.2	4	22.2	1	5.6	13.000	0.002
E5	120	52.2	75	32.6	35	15.2	47.174	0.000
E6	42	56.0	27	36.0	6	8.0	26.160	0.000
Total	190	52.3	118	32.5	55	15.2	75.421	0.000

As indicated above, the three ability groups of this study used E2 (Make a choice and be ready to change it should there be any clue in the subsequent items), E5 (Try to answer to the question before looking at the options provided), and E6 (Make an educated guess – i.e. use background knowledge or extra-textual knowledge in making the guess) significantly differently compared with other strategies in their access. The results also showed that the high ability group used E2, E5 and E6 strategies more than other two groups. No other significant use of strategies of Evolution type was spotted in the thoughts verbalized by the three ability groups of participants in this study.

Planning

The data collected from the three ability groups of test-takers in the present study did not show any significant use of planning strategies among them. Table 6, below, presents the frequency of strategies of Planning type employed by test-takers:

Table 6. *Frequency of Planning Strategies used by three ability groups*

Strategy	High	Intermediate	Low	Chi-squared
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	N	%	n	%	n	%	Statistics	Sig.
P1	2	16.7	6	50	4	33.3	2.000	0.368
P3	64	38.1	53	31.5	51	30.4	1.750	0.417
Total	66	36.7	59	32.8	55	30.6	1.033	0.597

Test –Wiseness

As the last step in analyzing data in this phase of the study, Chi-square analysis was also run on the frequency of strategies of Test-Wisness used by the three ability groups of test-takers. The results indicated that Tw1 ((Blind guess not based on any particular rationale), and TW4 (Use the process of elimination – i.e. select an alternative because the others did not seem reasonable or understandable, or because they seem similar or overlapping, or because their meaning is not clear) were used significantly differently by three ability group. the rest of the Test-Wisness weren't used significantly differently. Table 7 (below) shows the results.

Table7. *Frequency of Planning Strategies used by three ability groups*

Strategy	High		Intermediate		Low		Chi-squared	
	N	%	n	%	N	%	Statistics	Sig.
TW1	3	11.5	17	65.4	6	23.1	12.538	0.002
TW4	24	53.3	12	26.7	9	20.0	8.400	0.015
Total	31	33.7	37	40.2	24	26.1	2.761	0.251

As presented in Table 7, the high ability group used TW4 strategy significantly more than the other two groups and intermediate group used TW1 strategy more than the other two groups. No other significant use of sub strategies of test-wisness was spotted in the thoughts verbalized by the three ability groups of participants in this study.

To sum up, the analysis of data in addressing the second question of the study revealed that the test-takers in the three ability groups did not report employing Planning strategies significantly differently. However, when it came to Monitoring, Evaluation, and Test-Wisness strategies various levels of significance were observed in their think-aloud protocols.

Patterns of strategy use

To address the third research question, the first four most frequently used strategies by each ability group in the study were extracted. Table 8 below summarizes the results.

Table 8. *Patterns of strategies use by three ability groups*

Order of frequency	Four most frequent strategies for high group	Four most frequent strategies for intermediate group	Four most frequent strategies for low ability group
1 st	E5	E5	P3
2 nd	M14	P3	M2
3 rd	P3	E6	E5
4 th	E6&M1	M18	M18

1. E5: Evaluate understanding after reading the text, items and/ or alternatives
2. M14: Paraphrase the text or items for better comprehension
3. P3: Plan next section
4. M1: Use general knowledge in order to cope with written material
5. E6: Evaluate the selected choice by giving reasons
6. M18: Misunderstanding or lack of certainty
7. M2: Return to the text passage a second or more times to look for or confirm an answer

As indicated, the first most frequently used strategy by the high group was E5. This means that their evaluation of their understanding of the reading the text, items or alternative was of utmost importance to them. They tried to evaluate their understanding after reading the text, items and/ or alternatives. This strategy was also the first most frequently used one strategy for the intermediate group of test takers. However, P3 (plan next section) was the first most frequently used strategy for the low ability group. The second most frequently used strategy by the high ability group was M14. This means that they quite frequently paraphrased the text or items for better comprehension. In the same line the intermediate group used P3 as the second most frequent strategy, whereas the low ability group used M2 (Return to the text passage a second or more time to look for or confirm an answer). The third most frequently used strategy by the high ability group was P3. while the intermediate group used E6 (Evaluate the selected choice by giving reasons) as their third most frequently used strategy and the low ability group of test-taker used E5. Finally, the high ability group used E6 (Evaluate the selected choice by giving reasons) and M1 (Use general knowledge in order to cope with written material) as the fourth most frequent strategy. while the intermediate group and the low ability groups used M18 (Misunderstanding or lack of certainty) as the fourth most frequent strategy. The above pattern of strategy use is illustrated by Figure 2 below.

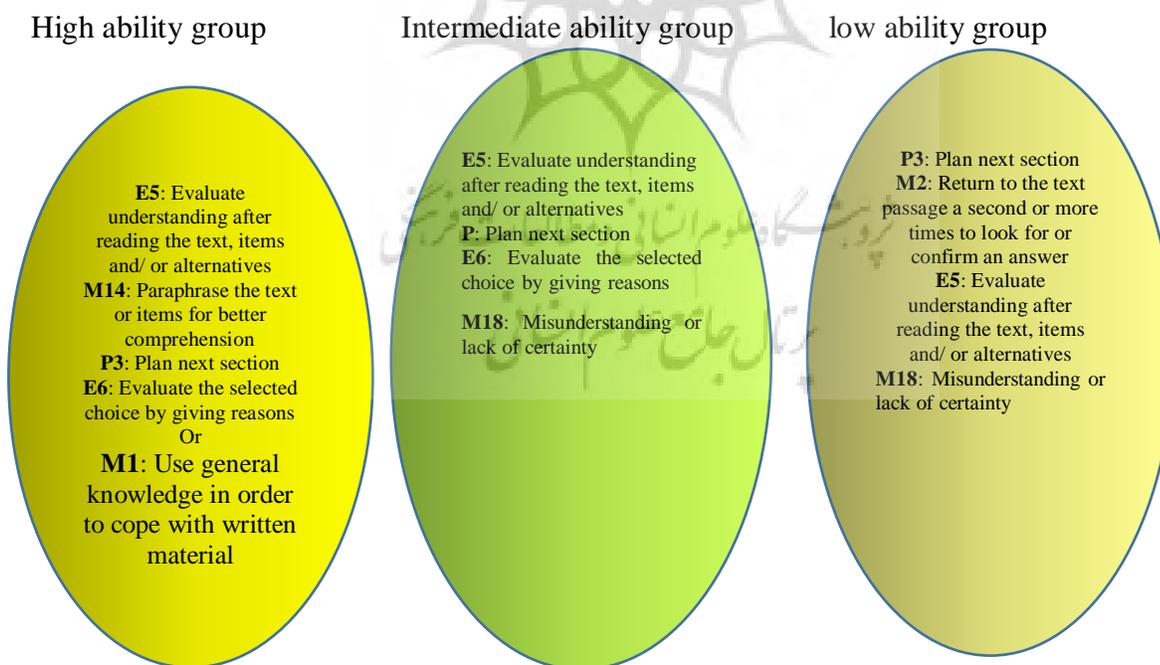


Figure 2. Patterns of strategies use by the three ability groups

Discussion

A total number of 1235 differently of strategies were used by the three ability groups of test-takers in this study. This confirms earlier research findings that EFL learners use a variety of strategies in problem solving. (Vahidi 2006). The present study also indicated that Monitoring and Evaluation were significantly used by the three ability groups of test takers who attended this research. This supports the validity of the test, as the three strategy types (i.e., planning, Monitoring, and Evaluation) are grouped as language strategies and are in favor of test validity (Bachman, personal communication). This result is in line with Kashkouli, Barati and Nejad Ansari (2015), Kashkouli and Barati (2013) and Vahidi (2006); these researchers too reported the most frequently used strategy among the three ability groups of test takers in their studies as Monitoring. Similarly, Barati (2005) found that the most frequently used strategies by Iranian test takers were M8 (Restate the text and/or items in native language for better comprehension), M6 (Make an educated guess – i.e. use background knowledge or external knowledge in making the guess), and M3 (Read the questions/alternatives a second or more time to make sure their meaning is clear).

In sum, the participants of the present study used 600 Monitoring strategies. This was used most frequently by high ability group. It confirms the findings of Shoery and Mokhtari's (2001) study. They suggest monitoring comprehension is of utmost importance to good test-takers. This is also in line with Ghafournia and Afghari (2013) whose advanced group employed Monitoring strategies most frequently.

This study also showed that the high ability group used Monitoring strategies significantly differently. This supports Anderson's (1991) assertion that the better readers could apply and monitor their strategies more effectively when reading a text. It is also consistent with Ghafournia and Afghari (2013, 2014) who found a significant difference between high and low groups in using strategies in general and Monitoring strategies in particular. In addition, Yang (2004) showed that in comparison with less-skilled readers, the more skilled ones reveal stronger monitoring ability while taking a test.

Evaluation was the second most frequently used strategy by test-takers in the present study. The three ability groups in this study used 346 Evaluation strategies. This shows Evaluation strategies were used quite frequently compared with planning and Test-wisness strategies. Vahidi's (2006) findings seem to be in line with this, as in her study, too, Evaluation was one of the main strategies that learners used to find a solution to their given problem. The findings of our study at the same time indicated that the low ability-group used Evaluation strategies less than that of high and intermediate groups. This supports Ghafournia and Afghari's (2013) findings. They found that the low-ability group in their study got the lowest mean score in using Evaluation strategies. The results also showed that the high group used Evaluation strategies more frequently than other groups.

Moreover, since most of test items in this study were inferential, the result is consistent with Kashkouli, et.al (2015). They, too, pointed out that the high and intermediate groups used more Evaluation strategies compared with the low ability group in their research on inference test items. It also supports Bemani Naeini and Rezaei's (2015) finding that the successful group tends to use Evaluation strategies more frequently.

The fact that the low ability group in the present study did not use Monitoring and Evaluation strategies significantly is in line with previous research (Anderson, 2002; Dhieb-Henia, 2003; Dreyer & Nel, 2003; Steinagel, 2005). In this regard, in relation on reading strategies, Zhang and Seepo (2013) argue:

“Low proficiency students had poor monitoring skills during reading which is vital for the reading achievement. The explanation for this could be the low proficiency students’ weak metacognitive awareness in applying the strategies and their poor linguistic knowledge (p.62).”

Further, the analysis of data in the present study indicated that even though Planning wasn’t used significantly but it was the third most frequently used strategy by test takers. The most frequently used strategy of this type was P3 (plan next action). The most frequent application of P3 was in the high ability group and the least was in the low ability group. A total number of 180 Planning strategies were used by the participants of this study. The fact that the high ability test-takers in this study used planning most frequently is in line with Ghafournia and Afghari (2013) who concluded that highly proficient test-takers got the highest mean score of planning strategies. It also confirms Bemani Naeimi and Rezaei’s (2015) findings that Planning was the least frequently used strategy by less successful test takers. Findings of this study were also in line with Ahmadian, Poulaki and Farahani (2016) who found high scoring test-takers in their study had more tendencies to utilize planning strategy.

Test-wiseness was the least frequently used strategy by the participants of this study. Of the 12 strategies of Test-Wiseness type, TW4 (Use the process of elimination – i.e. select an alternative because the others did not seem reasonable or understandable, or because they seem similar or overlapping, or because their meaning is not clear) and TW1 (Blind guess not based on any particular rationale) were the most frequently used ones. Similarly, Barati (2005) found TW4 was one of the most frequently used strategies by test takers.

Moreover, as indicted above (see Table 3) out of 1235 strategies, a total number of 598 strategies were used by high ability group, 398 strategies by intermediate group and 230 strategies by low ability group. The number of strategies used by each ability group in present study showed that as the level of proficiency increased, the number of strategy use increased. It supports Liu’s (2015) findings that regardless of the type of strategy, the frequency of strategy use increased as the level of proficiency increased.

Finally, the result of the data analysis revealed three different patterns of strategy use in the three ability groups. This finding is consistent with that obtained by Bemani Naeimi and Rezaei (2015) who found different patterns of strategy use for more successful and less successful test-takers. These findings differed from those of Barati (2005) who concluded that advanced and intermediate test-takers used the same strategies. In contrast, Kashkouli, et al. (2015) found that high ability and low ability groups employed the same patterns of strategy.

Conclusion

This study was set out to approach the validity of Iranian PhD Entrance Exam. The results indicated that even though Test-Wiseness strategies were used significantly frequently in a few cases, the strategies as in favor of test validity (i.e. monitoring, and evaluation) were used significantly more frequently by various ability groups of test takers. This provides validity evidence for the Iranian PhD Entrance Exams, as the test gives rise to the test-takers’ strategies of knowledge of language type rather than test-taking experiences. In this relation, Cohen (2012) asserts:

“In a test claiming to evaluate academic reading ability, it was felt that the emphasis needed to be on designing tasks calling for test takers to actually use academic reading skills, rather than rely on test-wiseness strategies (p.268).”

The findings of the present study seem applicable for understanding of linguistic and strategic aspects of test-taking processes and improve the design and validity of the tests. The findings of the present study suggest that systematic investigation into the strategic patterns of L2

learners at different levels of reading ability can reveal the strategic gap between more proficient and less proficient language learners. Moreover, the findings of the present study may not only be of interest to PhD Entrance Exam developers but also to EFL material designers and classroom instructors. Finally, language learners and the candidates for post graduate studies could benefit from the strategies various ability groups of test-takers in this study employed to complete the PhD Entrance Exam.

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Appendix

Taxonomy of Test-taking strategies: Barati (2005)

Planning:

1. Read all items/alternatives in advance to plan the course of actions
2. Reread instructions to reassure how exactly the test should be completed
3. Plan next action
4. Restate instructions (e.g. in L1) before taking any action

Monitoring:

1. Use general knowledge in order to cope with written material
2. Return to the text passage a second or more time to look for or confirm an answer
3. Read the questions/alternatives a second or more time to make sure their meaning is clear
4. Find the portion of the text that the question refers to and then look for clues to the answer
5. Try to answer to the question before looking at the options provided
6. Make an educated guess – i.e. use background knowledge or extra-textual knowledge in making the guess
7. Change the responses to any given item as appropriate – e.g. in the case were new clues are discovered in, say, another item
8. Restate the text, item, and/or alternatives in native language for better comprehension
9. Reread several alternatives at the same time to see which one suits the item best
10. Scan the text for a clue to the answer and pay extra attention to the relevant portion
11. Self-question/answer about the text, questions, or alternatives
12. Highlight unknown or important words in the text and/or items
13. Use L1 words to join sentences and/or phrases in the text
14. Paraphrase the text or items for better comprehension
15. Make association between words in the text and items
16. Guess where in the text the clue to the answer may appear
17. Monitor progress by searching for unanswered/left items
18. Misunderstanding or lack of certainty
19. Lack of enough attention
20. Unable find the portion of the text that the question refers

Evaluation:

1. Check other items for confirming the response provided
2. Make a choice and be ready to change it should there be any clue in the subsequent items
3. Reread the instructions again to evaluate the process undertaken
4. Evaluate the provided response by reading more portions of the text than needed
5. Evaluate understanding after reading the text, items and/or alternatives
6. Evaluate the selected choice by giving reasons
7. Checking the responses after completing the test/subtest
8. Evaluate action after being unsuccessful in providing answer to an item
9. Make sure the item has been completed

- 10.Claim unable to answer the test item
- 11.Feel certainty after answering the test item

Test-wiseness:

- 1.Blind guess not based on any particular rationale
 - 2.Look for the portion of the text that the question refers to and then look for clues to the answer there
 - 3.Look for the answer in chronological order in the passage
 - 4.Use the process of elimination – i.e. select an alternative because the others did not seem reasonable or understandable, or because they seem similar or overlapping, or because their meaning is not clear
 - 5.Choose an option that seems to derive from the others, is special, longer, shorter, different, or conspicuous
 - 6.Select the alternative because it had a word in it that evoked an association with a word in the native language or in another language known by the reader
 - 7.Arrive at an alternative because it had in it a word that appeared to be a key word in the text
 - 8.Read the questions first so that the reading of the text is directed at finding answers to those questions
 - 9.Postpone dealing with an item or selecting a given option until later
 - 10.Estimate the time needed for completing the item, and do not spend too much time on any given item
 - 11.Ask question from course instructor to clarify the meaning of unknown words or sentences
 - 12.Choose an alternative because all others have been used before
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