On the Validation of a Preliminary Model of Reading Strategy Using SEM: Evidence From Iranian ELT Postgraduate Students[1]

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Abstract

The present study was an attempt to refine a qualitatively proposed model of ELT discipline-specific reading strategies to provide a better interpretation of qualitative findings. Hence, in line with the components of the previous model, that is, 6 factors and 32 categories, a 6-hypothetical factor and a 33-item questionnaire were considered in the design of the ELT discipline-specific questionnaire. The questionnaire was piloted with 180 ELT postgraduate learners, and its reliability and the related validities were checked. Finally, the 25-item questionnaire of ELT reading strategies was distributed to 322 ELT postgraduate students. Then, the initial structure of the model was tested using CFA to come up with a final model of ELT reading strategy questionnaire. Results substantiated the initial structure of EFA with 6 factors and 25 items. Consequently, the proposed model of reading strategies can be negotiated with teacher educators. Results can make teacher educators aware of the marginalized voices of ELT postgraduate students. As a result, teacher educators might teach those strategies, when necessary, to student teachers.

Keywords: Validation; Preliminary Model; Reading Strategy

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1. Introduction

Reading comprehension of the discipline-related texts does not seem to be achieved overnight. Lee and Sparatley (2010) refer to a number of reasons as to the difficulty of content-area texts, that is, vocabulary knowledge, general knowledge about the topic and structures, strategies to tackle comprehension breakdowns and the ability to check and monitor comprehension. To overcome the challenges, postgraduate students are advised to arm themselves with discipline-specific reading strategies. Hermida (2000) states that reading a text and deriving a reasonable interpretation incorporates discipline-specific and nondiscipline specific strategies. Also, Songsiengchi (2011) describes reading strategies as "ways or tactics of processing that readers use to intentionally construct meaning or comprehension from the written text" (p. 9).

Cheng (2000) confirms the aforementioned statement and theorizes that all learners should make a serious attempt to master and succeed in university tasks, assignments and quizzes. To grasp a thorough picture of what a text is like and means, Nasrollahi, Krishnasamy, and Noor (2015) accept it as true that students have to resort to personal strategies like (a) prereading (b) while-reading, and (c) postreading activities. Prereading activities include previewing the text, paying attention to the print version and organization of the text, whereas, while reading activities comprise labeling some parts of the text, linking the prior knowledge of the reader with the constant information in the text, monitoring our understanding and summarizing the salient features. On the other hand, postreading activities encompass matching the knowledge of the world with real life situations. As a matter of fact, the most prominent feature expected of an EFL learner to develop, as it seems, is reading academic texts (Levine, Ferenze, & Reves, 2000). Contrary to the very fact, a majority of ELT learners commencing their higher education are below the expectations required of an average reader (Dreyer & Nel, 2003).

A number of studies have, thus far, dealt with discipline-specific strategies of different university majors (Boonkongsaen, Sujinpram, & Verapreyagoon, 2016; Burke, 1996; Capellini, Pinto, & Cunha, 2015; Chen & Chen, 2015; Chou, 2013; Chunlin, 2015; Dabiri et al., 2015; Jalilifar, Shooshtari, & Mutaqid, 2011; Karimi & Alibakhshi, 2014; Kasemsap & Lee, 2015; Meshkat & Hassanzade, 2013; Munsakorn, 2012; Phakiti & Li, 2011; Pretorius, 2004; Sohail, 2016). But, to the best of researchers' knowledge, few studies have taken into account the strategies of postgraduate university students in the field of ELT. Among the studies carried out in the domain of English language teaching, Samimi, Sahragard, and Razmjoo (2016) did a qualitative inquiry in the form of a grounded theory model of reading strategies for ELT postgraduate students. Yet, the existing model grounded in the

ELT postgraduate students' viewpoints has yet to be quantitatively supported with a large body of postgraduate students in the context of Iranian ELT students.

2. Literature Review

To-date, different models of reading strategies have emerged in the literature, of which Sheorey and Mokhtari's (2001) model relates to Iranian learners of English. They delineate a three-components model of reading strategies that comprise metacognitive, cognitive, and support strategies. Metacognitive strategies are "intentional and carefully planned techniques by which learners monitor and/or manage their reading (p. 436).

Additionally, the strategies that readers implement and apply directly on the reading texts to understand it better are called cognitive strategies. Support strategies, on the other hand, provide auxiliary help to the readers in order to understand and construct the meaning of a text. Examples of support strategies include, note taking, translation, using a dictionary, paraphrasing and posing questions. However, Pool (2010) cited that reading strategies embody three subcomponents, namely, global, problem solving and support strategies. Global strategies similar to metacognitive strategies set the plan for approaching a reading text and managing comprehension; nevertheless, problem-solving strategies come into play when a reader encounters difficult compartments of a text.

In a similar vein to Sheorey and Mokhtari (2001), support strategies in Pool's (2010) classification are a series of techniques and devices that accelerate understanding of a text. Sheorey and Mokhtari, a year later, under the influence of Pool renamed two components of their model into global strategies and problem-solving strategies instead of metacognitive and cognitive strategies, respectively.

However, Eskey (2005) highlighted the importance of three different models of reading comprehension to deciphering the meaning of a text. These models, according to Good man (1970), Gough (1985), Grab (2004), and Eskey (2005), are bottom-up, top-down, and interactive models. In the bottom-up reading model, readers usually use their knowledge of lexical items, fundamental points and phonological forms to decode the text meaning. Some psychologists define this model as data-driven and the data refer to letters and words which are written on the page (Paran, 1996). In processing of a text, the reader has to move from part to whole. Grabe (2009) is of the opinion that reading a text according to this model involves a mechanical process where a reader has to decode the text letter by letter, word by word and phrase by phrase.

Advocates of the bottom-up model (e.g., Flesch, 1955; Gough, 1972; LaBerge & Samuels, 1974) maintain that written information is hierarchically set, and the reader has to develop the identification of the information from the smallest

linguistic units to higher-order ones in order to comprehend a text (Alderson, 2000; Dechant, 1991; Field, 2003; Grabe & Stoller, 2002; Koda, 2005; Macaro, 2003; Mitchell, 1982). As a matter of fact, word recognition is placed at the heart of the processes of extracting lexical information (Koda, 2005, p. 29). Also, the meaning of each word is constructed by the writer and the reader's job is to decipher that particular meaning irrespective of his or her prior knowledge (Alderson, 2000; Beach, 1997; Grabe & Stoller, 2002; Koda, 2005).

Unlike the bottom-up model which considers no role for the background knowledge, the top-down model is built on the premise that comprehension takes place and is controlled by the reader (Grabe, 2000). In other words, Schank (1978) and Smith (1971) suggest that, initially, there is an assumption about the meaning of a text in the mind of readers. Considering the same issue in mind, Dechant (1991) argued that readers, then, read the text to affirm/reject their assumptions. As a matter of fact, mastering letter and words takes a secondary position in this model and priority is given to deriving the meaning of a text (Alderson, 2000; Grabe & Stoller, 2002; Macaro, 2003; Smith, 1971).

Ultimately, Rumelhart (1977) explained that top-down and bottom-up models of reading take a one-way direction for comprehending a text and cannot account for the mechanisms of inference-making (Shahnazari & Dabaghi, 2014). Rumelhart (1977), however, launched an interactive model of reading comprising both bottom-up and top-down approaches. Further, he stated that meaning does not merely reside in the mind of the reader, nor in the text, but is a mixture of writers' intentions and readers' interpretations. In this model, the reader initially skims the information in the form of visual features; then, a wide range of information in the form of previous knowledge is retrieved from long-term memory. Ultimately, the two data sources are drawn upon to arrive at a plausible interpretation of the meaning of a text.

Apart from the models proposed universally, a model of discipline-specific reading strategies in the context of Iranian EFL learners was proposed by Samimi et al. (2016). In this qualitative study, 28 ELT postgraduate students from four major universities in Iran were interviewed through a chain sampling procedure to express their reading strategies. Then, the data were transcribed and analyzed using MAXQDA software according to the open, axial, and selective coding. The MAXQDA output revealed 32 categories and six components of the ELT discipline-specific reading strategies. These component strategies include (a) previewing the content, (b) recognizing the salient and pronounced features, (c) emphasizing and clarifying the significant features, (d) consulting auxiliary sources, (e) ruminating and reflecting upon the text, and (f) reviewing the gist of materials.

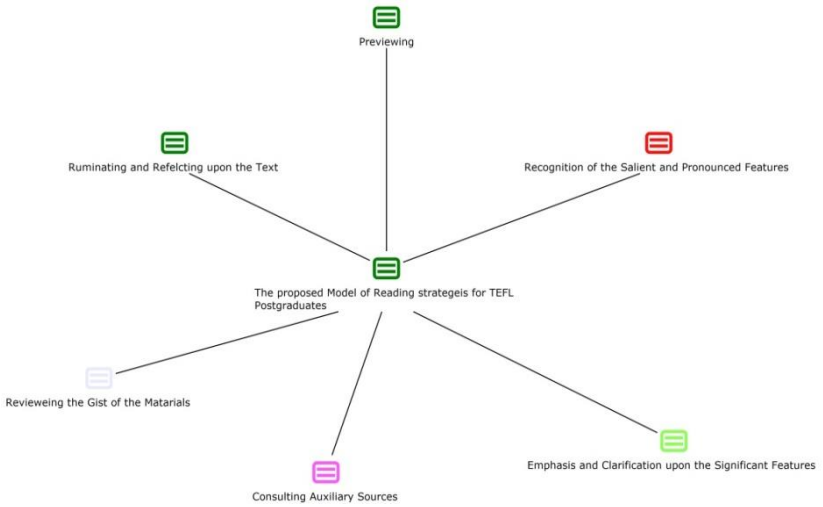

Figure 1. Preliminary model of reading strategies for ELT postgraduate students (taken from Samimi et al., 2016).

In addition to the six main themes/factors of ELT discipline-specific reading strategies, the results revealed 32 categories of the model shown in Table 1:

Table 1. *Main Themes and Categories of a Preliminary Model of DSRS*

Theme	Category
Previewing the Content	1. Skimming for a general idea 2. Thinking about the title 3. Use of background information 4. Identification of the text purpose 5. Paying attention to the writing format 6. Checking tables, figures, and charts
Recognizing the Salient and Pronounced Features	7. Identification of the salient and less salient points 8. Skipping unnecessary words and repetitive examples 9. Reading the text part by part 10. Paying attention to the keywords 11. Patience & tolerance 12. Reading the important points aloud 13. Margin or summary writing in one's own words
Emphasizing and Clarifying Upon the Significant Features	14. Reading the text for several times 15. Interpretation in L1/translation 16. Contextualization 17. Writing key terms in the margins 18. Drawing pictures and maps to

	summarize the gist
Consulting Auxiliary Sources	19. Matching real-world examples to the reading points 20. Paying attention to counter examples 21. Referring to external sources 22. Referring to a knowledgeable peer or expert 23. Goggling keywords on the net/related papers and PowerPoint presentations 24. Checking related textbooks 25. Checking book review & extracted papers of book
Ruminating and Reflecting Upon the Text	26. Critical thinking & thinking deeply about the written points 27 to considerate the matter during breaks and/or intervals 27. Multiple reflections during and at the end of reading 28. Matching details to the whole picture/puzzle to organize the information 30. Decontextualizing difficult points
Reviewing the Gist of Materials	31. Reading my own summaries or highlighted points 32. Having a glance at what I have read

Although the proposed model emerged from the voices of ELT postgraduate students from four major universities in Iran, the generalizability of the qualitative model was under question because it was not tested with a large body of ELT students and the model was drawn from the interviews held with a small number of ELT students. Therefore, the present research, in particular, tried to validate and refine this preliminary model of ELT discipline-specific reading strategy to answer the following questions:

Through the use of SEM and building upon the preliminary model of reading strategies, what model of reading strategy can be set forth for ELT postgraduate students within the Iranian context?

3. Method

This study, in fact, meant to draw upon an earlier study carried out by Samimi et al. (2016) to validate a qualitative preliminary model of discipline-specific reading strategies in the field of ELT. In other words, this study aimed to build a new instrument, that is, ELT discipline-specific reading strategy questionnaire. The items of the instrument were borrowed from the qualitative model of discipline-specific reading strategies. Thanks to the six components/themes

of the model and 32 categories, a 33-item reading strategy questionnaire was built up. The logic behind designing the questionnaire could be traced to the generalizability issue of the qualitative findings. To put it differently, the earlier model was induced from the interviews held with 28 participants from four major universities in Iran which, due to the nature of qualitative findings, addresses the issue of particularity. However, as it can be observed, a variety of ELT postgraduate students lag behind the expectations of ideal readers. Consequently, the researchers included a quantitative phase to the emerged model by Samimi et al.'s (2016) study to respond to the needs of students, on the one hand, and provide a better interpretation of qualitative findings, on the other, to posit a model that could be trialed and accounted largely so as to stand as a validated local model for ELT postgraduate students.

As a result, a 33-item questionnaire of ELT specific reading strategies was designed with the help of the domain experts, as they checked the content and wordings of the items, involving six main factors (see Table 2). The factors include (a) previewing (items 1-4), (b) recognizing the salient and pronounced features (items 5-9), (c) emphasizing and clarifying the significant features (items, 10-19), (d) consulting auxiliary sources (items 20-24), (e) ruminating and reflecting upon the text (items 25-29), and (f) reviewing the gist of materials (30-33):

Table 2. *ELT Reading Strategy Questionnaire, Pilot Test*

Factors	Items
Previewing	1, 2, 3 & 4
Recognizing the Salient and Pronounced Features	5, 6,7, 8 & 9
Emphasizing and Clarifying the Significant Features	10, 11, 12, 13, 14, 15, 16, 17, 18 & 19
Consulting Auxiliary Sources	20, 21, 22, 23, 24
Ruminating and Reflecting Upon the Text	25, 26, 27, 28 & 29
Reviewing the Gist of Materials	30, 31, 32 &33

The content of the questionnaire includes (a) instruction as to the content and the purpose for which this survey was designed and (b) demographic variables such as, age, gender, experience, and postgraduate level (M.A. student, M.A. graduate, Ph.D. candidate, and/or Ph.D. holder). Following the introductory points as to what the questionnaire is like, what it includes and demographic variables, the researchers included the items of the instrument. Each item was measured on a five-point continuous Likert-scale from strongly disagree to strongly agree. Also, a closing "thank you for answering my survey" was added to the instrument.

3.1. Piloting the Questionnaire

After designing the questionnaire, it was distributed to 180 ELT postgraduate students (77 males, 103 females) through two ways. It was disseminated to students via self-administered questionnaires and a Web-based survey when the number of self- administered questionnaires did not reach the optimal count.

The self-administered questionnaires were given to M.A. students of ELT at Islamic Azad university of Bandar-Abbas, M.A. and Ph.D. students of ELT at Shiraz University and Islamic Azad University of Qeshm according to the purposive sampling procedure. In other words, the researchers opted for purposive sampling because the handful number of postgraduate students could be reached from the selected universities, and they matched the purpose for which the reading strategy questionnaire was designed.

Finally, 96 students returned their questionnaires or/and sent back the filled questionnaire through -email to the researchers, but the optimal number of participants was 180—this number was considered for the pilot study because the survey relied on six hypothetical constructs or concepts and as a yardstick for each factor, 30 participants should, at least, have been assumed.

As a solution to collect economic and less-costly data, the researchers resorted to a Web-based survey and online distribution of data. In fact, the researchers could promptly gather optimal data employing an online survey of reading strategies with the help of former and current colleagues to share the link of the online-survey among their students. As soon as the researchers gathered the remaining 84 responses and the number of respondents reached 180, they aborted the survey so that no more participants could submit their responses. The goal at this stage of the study was to guarantee whether the current instrument was good enough in terms of content, face and hypothetical constructs to be used in the main study. Moreover, the internal consistency of the survey was another factor the designers of the survey wanted to reassure. Finally, some changes as to the wordings, item omission, and the like were done to the original questionnaire, and it was launched for the main study with 332 ELT students.

3.1.1. Reliability and related-validity of the ELT reading strategy questionnaire (ERSQ)

The purpose of the reliability estimate is to figure out whether item responses are consistent across concepts/factors (Cresswell, 2009). Such a reliability can be estimated through Cronbach's alpha coefficient. The internal consistency of the items of the ERSQ was estimated through Cronbach's alpha coefficient (alpha = .89), showing a fairly high index of reliability (see Appendix A). Also, the experts in

the field examined the face and content validity of the questionnaire. In almost all the items, there was general consensus among the scholars as to the feasibility and wordings of the items, except for 2 items that were revised based on the comments received from the experts.

Moreover, the initial examination of the factorial structure of the questionnaire was examined through Exploratory Factor Analysis (EFA). Prior to the main analysis, the factorability of the correlation matrix of the observed variables (i.e., items) was examined. There were a large number of high correlations among the items. Essentially, EFA is a correlation-based technique. Hence, if the correlations among the variables are too low, EFA will not obtain dependable results. Therefore, the existence of a large number of high correlations supports the factorability of the correlation matrix (Karami, 2015; Pallant, 2011).

In addition, the Kaiser-Meyer-Olkin Measure of Sampling Adequacy for the correlation matrix was 0.84, which is well above the minimum required level of 0.60 (Pallant, 2011). Also, Bartlett's Test of Sphericity was significant at $p < .001$. All in all, the results of the initial investigation of the data supported the factorability of the correlation matrix.

Also, several Principal Axis Factors (PAF) followed by the Direct Oblimin rotation techniques were conducted. The results indicated that six factors can be extracted that can explain 49.75% of the variance in the data. The decision as to the number of factors to be extracted was driven by prior theoretical background of the study and inspection of the screen plot plus the meaningfulness of the pattern of factor loadings.

Out of the initial pool of 33 items, eight items had to be discarded. The factor loadings for the remaining 25 items are displayed in Appendix C. Note that each and every item loads on a single factor. In addition, each factor is measured by a number of items that have high loadings of above the required level of 0.30 (Pallant, 2011). Therefore, a simple structure was obtained.

Based on the pattern of factor loadings, the factors can be dubbed in the following way:

- Factor 1: Ruminating and reflecting upon the text
- Factor 2: Emphasizing and clarifying upon the significant features
- Factor 3: Previewing
- Factor 4: Recognizing the salient and pronounced features
- Factor 5: Consulting auxiliary sources
- Factor 6: Reviewing the gist of material

All in all, EFA supports the factorial structure of the questionnaire. The factors and items of the survey include items 1, 2, 3 and 4, as the third factor called "previewing." Also, items 5, 6, 7, and 6 form the fourth factor of the present survey named "recognizing the salient and pronounced features." In addition, items 11, 12, 13, 16, 17, and 19 constitute the second factor, that is, "emphasizing and clarifying the significant features." Moreover, "consulting the auxiliary sources" is the fifth factor and includes items 21, 22, 23, and 24. Furthermore, "ruminating and reflecting upon the significant features" encompassing items 25, 26, 27, and 29 forms the first factor of the ERSQ. The final factors including items 30, 31, and 32 is reviewing the gist of the materials.

3.2. Main Study

The second and the final phase of the study commenced as soon as the reliability and related validities of the ERSQ were secured. The questionnaire was, then, ready for the final distribution, hence, based upon its results, the preliminary model of ELT strategies could be quantitatively tested to help explain and interpret qualitative findings in the form of the final model of ELT reading strategies.

3.2.1. Participants

The participants of the quantitative phase of the study were 332 ELT postgraduate students, excluding the number of participants of the pilot study. They participated from all around Iran, that is, state and Azad universities and were chosen according to availability sampling. Out of the pool of 322 postgraduate students, 122 participants were studying M.A. in English language teaching and 128 participants already held an M.A. in English language teaching. Moreover, 82 Ph.D. candidates participated in the present study. In terms of gender distribution, 131 participants were males and 191 participants were females. Finally, their age ranged from 22 to 56 years and their teaching experience varied from one to 40 years of experience.

3.2.2 Instruments

The primary instrument was the ERSQ with 25 items that was piloted previously for its reliability and validity issues. As a result, the final ERSQ with 25 items was distributed to 332 participants to arrive at a validated model of discipline-specific reading strategies in the field of ELT.

3.2.3. Data collection procedure

The data were collected in three steps:

- Step 1: An online survey was made and the link of the survey was copied and sent to as many postgraduate students as the researchers knew via e-

mail and social networks such as *WhatsApp* and *Telegram*. Also, the link was sent to professors and colleagues and they shared it all around Iran. The link could be opened easily as soon as participants double clicked on it.

- Step 2: The link was sent to Teaching English Language and Literature Society of Iran (TELLSI) and shared with the TELLSI members via e-mail. TELLSI association comprises more than 2,000 postgraduate students and professors and holds an international conference each year.
- Step 3: The main researcher checked his Google form per day and sent notifications to his friends and colleagues and kindly requested them to answer the survey; after two months, he managed to increase the number of respondents to 322 responses and waited for two more weeks, but did not see any change in the number of responses recorded in the Google form. As a result, the responses were downloaded in the form of Microsoft Excel format to go through the final stage of data analysis.

3.2.4. Data analysis procedure

This study aimed at positing the relationships among the variables in terms of a model. Hence, the structural equation modeling (henceforth SEM) was used as the most robust and rigorous tool for testing the model using CFA. SEM works on the basis of describing the relationship between the measured and the latent variables yielding a measurement mode (Dörnyei, 2007). The second stage of SEM includes identifying links between the latent independent and dependent variables. The result of this stage turns out to be a model that includes all the measurement models (Kline, 2011). In order to run SEM, the Mplus software was used.

4. Results

In order to answer the research question, the confirmatory factor analysis (CFA) was run using SEM. The assumption in CFA and all other SEMs is that the data must be multivariate normal. Although the assumption can be checked empirically, it is very difficult to obtain normality with items that have only five categories. There are a number of estimation techniques, however, that are robust against violations of this assumption.

In this study, the MLR estimation technique in the Mplus software (Muthén & Muthén, 1998-2010) was employed. MLR is also known as the Yuan-Bentler test (Yuan & Bentler, 2000). Unlike EFA where assessing the fit of the models is not possible, the fit of the models can be examined in CFA. This is because CFA models are usually over-identified. There are numerous indices for the evaluation of model fit in SEM (for an overview, see Byrne, 2016; Kline 2015). From among the various indices introduced in the literature, Brown (2006) identified four indices as the best.

Actually, these are also the only fit indices that are reported in the Mplus program. These four indices are the Root Mean Square Error of Approximation (RMSEA), the Comparative Fit index (CFI), the Tucker-Lewis index (TLI), and the Standardized Root Mean Square Residual (SRMR). In order to indicate adequate fit, the following indices must be obtained: RMSEA ≤ 0.06, CFI ≥0.90, TLI ≥0.90, and SRMR ≤0.08.

The initial model tested through the CFA model did not show adequate fit. The following fit indices were obtained: RMSEA = 0.048, CFI = 0.90, TLI = 89, and SRMR = 0.057. The X^2 obtained was 454.52 (*df* = 260). The 90% confidence interval around the RMSEA was 0.041-0.056. It appeared that the fit indices were acceptable except for TLI.

An inspection of the modification indices revealed that freeing a residual correlation between items 11 and 27 may have a significant impact on model fit. The inspection of the content of the items also suggested that the two items have similar wording. Hence, the parameter was set free. The new model showed adequate fit.

The path diagram for this model is displayed in Figure 1. Note that all loadings are high and acceptable. The fit indices for this model were the following: RMSEA = 0.046, CFI = 0.91, TLI = 90, and SRMR = 0.056. The X^2 obtained was 432.16 (*df* = 259). The 90% confidence interval around the RMSEA was 0.038-0.053. The close-fit probability value for the RMSEA was 0.824, which indicated very good fit (Wang & Wang, 2012):

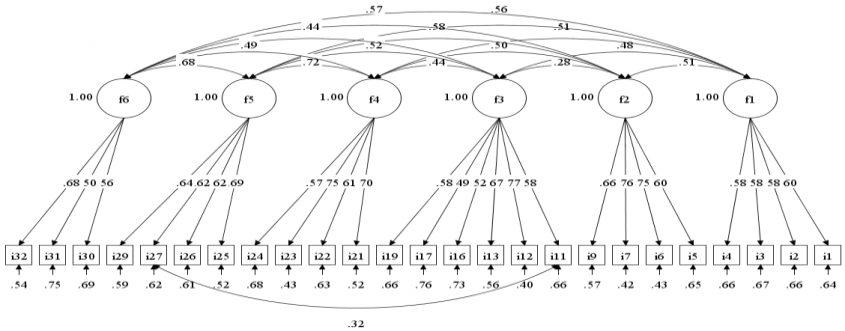

Figure 2. Diagram for ELT discipline-specific reading strategy model.

5. Discussion

The final model of ELT discipline reading strategies for postgraduate students comprises six factors. Therefore, the results of quantitative findings lend support to the factors/themes developed as the outcome of the grounded theory in the previous study. Yet, a number of items were omitted as the result of EFA in the pilot study.

The first factor of the preliminary disciplinary model of reading strategies was previewing. Previewing the content includes four categories of skimming the text for a general idea, thinking about the title, the use of background information and identification of the text purpose. The results of both EFA and CFA support the previewing factor suggested by the postgraduate students. The findings of the first factor support the idea that before students approach a text, they are required to assume the purpose of reading to activate their background knowledge (Chen & Chaung, 2011; De Corte, Verschaffel, & Ven, 2001; Houtveen & Grift, 2007; Wangsgard, 2010). Moreover, the findings are congruent with the opinion that the more prior knowledge the students activate, the better they can process information in a text (Toboada & Guthrie, 2006). Also, Booth and Swartz (2004) argue that reading is concerned with one's thinking and understanding of the text in a way that one's reading comprehension is affected by his or her prior experience and knowledge.

The second factor of the preliminary model of reading strategies was recognition of the salient and pronounced features. It embodied four factors, that is, paying attention to the writing format, identification of the salient and less salient points, skipping unnecessary words and repetitive examples, and reading the text part by part. As a result, the second factor comprises four items (see Appendix A). The results of the second factor and its related items might strengthen the point that learners use strategies to aid them in noticing and coping with the new information, that is, declarative knowledge, which is always conscious and unhabitual (Oxford, 2011). In fact, Oxford (2011) identified three cognitive processes, (the declarative knowledge stage, the associative stage, and the procedural knowledge stage). The first stage is noticing and coping the information which resembles identification of the salient points before focusing on them. At this stage, the reader consciously scans the text to spot the significant points and leave out the unnecessary information. Strategies of the type include underlying and highlighting the significant points.

Emphasizing and clarifying the significant features was the third factor of the disciplinary reading strategy for ELT postgraduate students. The third factor encompassing six items was tested for the final fit. The results of CFA confirmed a six-item factor called emphasis and clarification upon the significant features. As this factor suggests, the students resorted to a number of strategies to focus on the salient features so as to process the information included in the text. Drawing pictures to summarize the gist graphically, translation, writing keywords in the margin, taking notes of the important points and writing personal examples related to the text are various strategies of this type. EL-Kaumy (2004) referred to self-monitoring strategies where the learner controls the plan and monitors the text to

regulate his or her learning and uses the right strategies such as adopting graphic organizers to identify particular types of text information and writing comments and/or questions on self-stick notes or in the margins.

Parts of the results are in line with EL-Kaumy (2004). Because the strategies of the third factor aim to work on salient information to process and interpret it and also because self-monitoring strategies are designed to be set at the right time to facilitate comprehension, these strategies seem to enjoy some commonalities. Moreover, the findings of this part are congruent with those of Askyela and Ercetin (2009). They maintained strategies such as summary writing, paraphrasing, and the use of contextual clues are helpful tools to work out the meaning of a text.

Moreover, consulting auxiliary sources, the fourth factor, typically involved five categories. Referring to external sources such as dictionaries and encyclopedia, referring to a knowledgeable peer or expert, googling keywords, related papers and PowerPoint presentations on the net, checking related textbooks, and checking book reviews and extracted papers of a book were among the related categories of consulting auxiliary sources. Building upon the qualitative findings, items 20 to 24 of the ERSQ were pertinent to consulting auxiliary sources. Also, the results acknowledged the initial structure of this factor comprising four items. As it was mentioned earlier in Samimi et al. (2016), this factor and its strategies were reported to be used when the reader faces difficulty in understanding certain parts of the text. The results corroborate Sheorey and Mokhtari's (2010) problem-solving strategies. Problem-solving strategies refer to actions and procedures that the students employ to solve problems while reading academic texts. These are localized, focused techniques for use when problems develop in understanding textual information. Likewise, the results are in accordance with Weistein and Mayer's (1987) definition of affective strategy, which is interactions made by learners with their peers and the environment. Finally, we should acknowledge that further research in relation to the strategies of this type is warranted

The fifth factor of the preliminary model of reading strategies is reflection upon the text. Four categories made up this factor: critical thinking, considering the matter during breaks and/or intervals, organizing information through matching details to the whole picture, and decontextualizing difficult points. Finally, CFA substantiated the initial structuring of this factor. The fifth factor accounts for the results of a number of studies. For instance, Sheorey and Mokhtari (2010), in their categorization of global reading strategies, referred to critical thinking and critical analysis of the overall content of the study. Munby (1996) described academic reading as a very thoughtful, purposeful and serious process. Nasrollahi et al. (2015) pinpointed matching the knowledge of the world to the knowledge of the text as a

postreading activity. Moreover, Phakiti and Li (2011) found that the ESL students had difficulty in extracting and synthesizing information in a text. Therefore, the organization of different points seems a vital strategy for students if they are going to follow the overall meaning of text.

Reviewing the text was the sixth factor of the preliminary model of reading strategies for the postgraduate students. This factor included two categories which were formulated into four items in the ERSQ. Therefore, the results of the EFA showed three effective items for this factor. Finally, the results of the CFA supported the results of EFA. The advantage of this strategy lies in the fact that the summarized information would be processed further once again at this level. As a result of extra heed, the information might get transferred from short-term into long-term memory. The transfer of information might be at play simply because reviewing occurs at two levels: firstly, immediately after the text is finished and, secondly, after a number of days.

On the whole, the proposed model has clear-cut components for which a range of strategies have been highlighted. The merit of this model as compared to the previous ones in the literatures can be its straightforwardness, systematicity, and overarching nature. It is straightforward and simple in the sense that the steps and stages of the model have been clearly identified. In addition, these steps and stages are interrelated (Samimi et al., 2016). Finally, the model is overarching and improves the previous models in terms of simplicity and particularity.

Unlike Sheorey and Mokhtari's (2001) model taking into account a general audience, our proposed model addresses Iranian ELT postgraduate students in Iran and is derived from their own voices; hence, it can safely be used in their own practices. Moreover, the model has some improvements over the interactive model of reading comprehension (Rumelhart, 1977). Rumelhart's (1977) model is limited in scope and places no role for critical analysis and review of the salient points. Ultimately, the model adds to the body of the literature by proposing a discipline-specific model of reading strategies with newer themes and categories.

6. Conclusion

The results of this study are in line with the postmethod recommendations that favor locally-driven models and take into account the particularity of the context. In fact, the 25-item model embodies a set of interwoven steps that a reader needs to take in order to read and understand texts in the field of ELT. These steps create a chain where the second step requires the former and the third step presupposes the second one, and so on.

Therefore, in cases where the orderly components of the proposed model are not followed, student might fail to understand the texts thoroughly. The very

case happens when students have to read a huge and lengthy text in a limited time, for instance, the nights before the final exams. As a result, the students might resort to the summaries of the main points written by their peers or check the summary books in this respect.

One sort of understanding that the emerged model can project to the ELT students, in general, might be the point that reading ELT texts and their complexities are beyond the limitations of reading English for general purposes and ELT students need to take into account all the components of the model and follow them meticulously to read, organize and understand the main points.

On the whole, the final proposed model was the byproduct of two rigorous methods of data collection and analysis, that is, the grounded theory in the previous study and SEM in the current study, thereby making the model in terms of following the procedures of an academic research method a methodical one; however, the implementation of each phase had its own constraints. The proposed model of reading strategies can be negotiated with teacher educators. The results can make teacher educators hear the marginalized voices of ELT postgraduate students. As a result, they might use those strategies when necessary to educate students-teachers. In fact, the desired strategies of students can be used as a reading instructional package to empower the future generation of teachers relying on their own insights in an attempt to include students' voices in the curriculum. Put it differently, if they are aware that they can have an effect on the curriculum and exert power on the syllabi, their motivation and encouragement to read in the discipline augment.

Finally, although reading strategies have lent themselves to many inquires in the past few decades in EFL and ESL settings, it seems few studies have been conducted on the reading strategy profile of different disciplines such as humanities, law, engineering, fisheries, and so on in the form of a model for the postgraduate students of those disciplines. As a result, M.A. theses and Ph.D. dissertations can employ an exploratory mixed-methods design to investigate the reading strategies profiles of postgraduate students of other majors to help them read their disciplinary texts in English faster and better. Moreover, other studies can test the same model with students of majors other than ELT at postgraduate levels to understand whether the model proves effective because the proposed model was posited regardless of any particular language proficiency and focused solely on reading for understanding content area texts.

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Appendix A
ELT Discipline-Specific Reading Strategy Questionnaire

The present survey aims at picking up the strategies those postgraduate students employ to read technical texts such as Teaching Methodology, Testing, Linguistics, and son on in ELT. Please read each item carefully and provide your candid response on scales such as 1 (*Strongly Disagree*), 2 (*Disagree*), 3 (*No Idea*), 4 (*Agree*), and 5 (*Strongly Agree*).

1. Age:
2. Gender:
3. What part of Iran do you live in?
4. How long have you been learning English?

Previewing
1. The purpose for which I read a text should be clear before I approach it.
strongly disagree disagree no idea agree strongly agree

2 Having background knowledge is necessary when I approach a technical text.
1. I skim the text one time, from top to bottom, to have a general idea.
2. I think for a while about the title of a technical text to activate my previous knowledge about it.

Recognition of the salient and pronounced features
3. While I am reading a text for the first time, I identify the important parts and underline them.
4. As I am reading a text, I skip unnecessary words and repetitive examples to stick to the main idea.
5. Through my knowledge of paragraph writing, I can identify the main points and skip the unnecessary parts.
6. I read the text part by part to identify the important points.

Emphasizing and clarifying upon the significant features
7. I draw pictures and outlines to graphically summarize the gist of materials.
8. I write the interpretation of the text in my mother tongue.
9. I write the keywords used by the writer in the margins to remember the view point of the writer.
10. I read the important points aloud to emphasize and retain the main points in my mind.
11. I take notes of the important points in my own language in the margins of the text.
12. I write any personal experience or examples related to the text in its margin to help me understand it better.

Consulting auxiliary sources
13. I consult experienced peers and experts to clarify the intention of the writer.
14. I google the key terms, related papers, and PowerPoint presentations on the net.
15. I read the same topic on other available textbooks
16. If I am running short of time, I check book reviews and extracted papers of a book.

Ruminating and reflecting upon the text
17. I do not accept any information until I analyze it critically from different angles.
18. While I am having a break, I think deeply about what I have read.
19. I usually organize the information after reading a number of pages by drawing an outline and adding details to whole picture.
20. I separate the difficult points from the main text and give myself extra time to think about them.
Reviewing the gist of materials
21. Immediately after reading the text, I review my own summaries and highlighted points.
22. I review my summaries not immediately, but after a number of days.
23. I have a quick glance at the main titles of the texts I have read.

Appendix B

Table 3. *Pattern of Factor Loadings*

	Factor					
	1	2	3	4	5	6
Item 29	.518					
Item 25	.509					
Item 26	.507					
Item 27	.405					

Item 12	.893				
Item 13	.688				
Item 16	.557				
Item 17	.552				
Item 11	.476				
Item 19	.439				
Item 1		-.843			
Item 3		-.702			
Item 4		-.679			
Item 2		-.583			
Item 6			-.862		
Item 7			-.750		
Item 5			-.609		
Item 9			-.568		
Item 23				-.840	
Item 21				-.576	
Item 24				-.454	
Item 22				-.435	
Item 30					.510
Item 32					.510
Item 31					.407