

On the Development of a Model of Discipline-specific Reading Strategies in the Context of Iranian EFL Learners

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Abstract

Reading strategies are seen as supportive means to help learners process and comprehend English texts effectively. The present research probed to posit a discipline-specific model of reading strategies for Iranian TEFL postgraduate students. The motive behind developing a local model of reading strategy is twofold: first, a variety of postgraduate students admitted for M.A and Ph.D. programs, either may not have received their first degrees in TEFL or they are TEFL graduates who lag behind disciplinary-knowledge in terms of reading. Consequently, Twenty-eight postgraduate students majoring in English Language Teaching from Shiraz University, Isfahan University, Yazd University and Islamic Azad university of Bandar-Abbas wherein M.A and Ph.D. programs in TEFL are offered were asked to brainstorm their ideas as to how they approach technical materials in English. Conducting a 3-session semi-structured interview with 22 participants and focus-group interviews with six participants, the researchers then transcribed and codified the data according to Corbin and Strauss (2014) systematic steps of open, axial and selective coding for grounded theory. The findings revealed a six factor model encompassing 32 categories. The factors include: a) previewing the content, b) recognition of the salient and pronounced features, C) emphasis and clarification upon the significant features, d) consulting auxiliary sources, e) ruminating and reflecting upon the text, and f) reviewing the gist of materials. As a matter of fact, the proposed model can help postgraduate students move away from teacher authority and develop reading autonomy.

Key terms: Reading strategies; Discipline-specific reading strategies; Semi-structured interview; Grounded Theory; Focus-group interviews

Introduction

Reading content-area materials and the techniques to approach them seem to be different from reading general English. Therefore, when students commence postgraduate studies, i.e., MA and PhD programs, they are supposed to read and comprehend discipline-related texts efficiently if they want to accomplish academic achievement. This mission cannot be largely successful unless students have a high level of familiarity with language use strategies, in general, and content-area strategies in particular. Language use strategies are envisaged as accelerative support to help learners process and comprehend SL/FL texts extensively (Cohen, 1998; Nakatani & Goh, 2000). Apart from language use strategies, Hyland (2006) captures the attention of scholars toward content-area reading and explains that university degree programs draw from and feed into different disciplines worldwide.

As a matter of fact, the salience of research into reading strategies for academic programs has gained a considerable attention recently (Zare & Mobarake, 2011). Content-area or academic reading is a “purposeful and critical reading of lengthy academic texts for studying specific major subject-areas” (p.3). Leki (2001) also mentions “academic reading involves an extensive and in-depth reading of texts, which are subject-explicit and include a through mixture of data from various sources. Dudley-Evans and Johns (1998) emphasize the skills that students pick up at undergraduate programs should be put into practice when they go through subject-specific English.

Moreover Erickson, Peters, and Strommer (2006) note that certain qualities are assumed to have developed on the part of postgraduate students during their graduate studies. Yet, it is very often reported that students lag behind the expectations. The weak performance of these learners can be spelled out thanks to the various features of academic texts and their length. Academic reading as Shuyun and Munby (1996) describe is a pondering, serious and multi-layered process.

In simpler terms, Sohail (2016) goes on to say that students at university level are required to read discipline-specific texts regularly. Yet, they are not quite aware of the reading strategies. Consequently, it is perceived that the process of reading and comprehension of texts takes a fairly longer time. 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 EFL learners commencing their higher education are below the expectations required of an average reader of academic texts (Dreyer & Nel, 2003).

Literature Review

Academic reading is a “purposeful and critical reading of lengthy academic texts for studying specific major subject areas” (Sengupta, 2000, p. 3). Furthermore, Faizah (2004) is of the opinion that academic reading is to the point and differs from daily reading. Jiménez, García, and Pearson (1996) further state that reading strategies are plans that readers use with open eyes to work out a text. Moreover, the main reason that academic and discipline-specific readings have received heightened attention in the last 10 years according to Levine et al., (2000) lie in the fact that techniques to peruse academic pieces are assumed unique and considered essential. Thus, university students should acquire such skills.

Alderson and Urquhart (1984), Grellet (1981) and Williams (1985) were the initiatives of research into content area- reading strategies. They specifically probed the profile of reading strategies used by students whose L1 was not English, yet they had to read subject-specific texts in English. In the last 30 years, a huge heed has been attained to research into learner strategies and strategy use for academic texts.

The discipline of TEFL is no exception. In other words, there is limited, if any, evidence as to the strategies that postgraduate students use to understand and process information when they read technical texts such as Teaching Methodologies, Testing, Research, etc. in the field of TEFL. Also, the available theory in the perceived domain lacks the orderly and guiding steps if taken assist the practitioners in the field. Since the 1990s, research into learner strategy has been revolving around issues such as the relationship between reading strategy and reading proficiency (Hosenfeld, 1977; O'Malley & Chamot, 1990), the influence of L1 on L2 strategy use (Hardin, 2001; Jimenez et al.), the role of culture and motivation on the use of reading strategies (Greaney & Neuman, 1990; Parry, 1993), strategy use for reading English for general and specific academic purposes in testing and non-testing contexts (chou, 2013) and test taking strategies (Cohen, 2006; Storey, 1997). Also, Previous research in the realm of academic reading has

looked into the strategies that capable and less capable readers employ (Anderson, 1991; Block, 1985; Yau, 2005) and strategies that are at the disposal of university students of different majors (Sohail, 2015; chou 2013; Kasemsap & Lee, 2015; Boonkongaen, Sujinpram & Verapreyagoon, 2016; chunlin, 2015; Dabiri, Rashidi, Saadat, Sahragard, & Alimorad, 2016). But, none of them has taken into account the strategy used by TEFL Postgraduate students.

Moreover, no existing model grounded in the TEFL postgraduate students' viewpoints has to-date tapped into the discipline-specific reading strategies so as to set forth a model of reading strategies in the context of Iranian postgraduate students.

As a result, the present research addresses this overlooked area as the researchers assume few or no studies have lent themselves to investigating TEFL postgraduate learners' strategies to theorize a model for them. Therefore, this study addresses the following research question:

1. What strategies do EFL learners use to understand and process information when they read technical texts such as Teaching Methodologies, Testing, Research, etc, and what kind of a model emerges as the result?

Method

This study is shaped in the form of a qualitative grounded theory approach. It looks into the interrelationship of data inquiring about TEFL postgraduate students' discipline-specific reading strategy profile to propose a model of reading strategies in this regard.

Participants and Settings

Twenty eight postgraduate students majoring in English teaching cooperated as the participants of this study. They were chosen according to snowball sampling from among four major universities in Iran, i.e. Shiraz University, Isfahan University, Yazd University and Islamic Azad university of Bandar-Abbas wherein MA and PhD programs in TEFL are offered. The prime reason why the researchers chose students from the aforementioned postgraduate schools lay in the fact that TEFL students were supposed to read content-area courses in English as soon as they commenced their studies. Although there were more students willing to take part in this study, due to the yardstick of data saturation, no new theme was likely to arise from the subsequent interviews. As a result, the number of participants was restricted to this particular number.

Instruments

To gather data about discipline-specific reading strategies, semi-structured interviews were determined as the best option. Prior to holding the first semi-structured interview, the researchers developed certain general guiding questions or in other words, the interview protocol/guide. McCraken (1998) argues that the use of interview guide is essential for the researchers, that is, the researcher has to attend to a variety of issues and at the same time achieve the very objective for which they desire. For an interview in the process of developing the interview questions, the researchers grasped a general insight of a fairly sufficient number of reading strategies by reviewing the related papers in the same vein and finally managed to come across six open-ended broad questions to be included in the interview guide.

At the next stage, the questions were piloted in advance with four interviewees available at Islamic Azad University of Bandar-Abbas. As the result, 2 out of 6 questions were reworded and two more broad questions were added to the guide. Also, this point should not be left unsaid that in grounded theory, there is no clear-cut border between the data collection and data analysis procedures. Moreover, the researchers benefited from simultaneous data collection and analysis as well as the follow up memos which were transcribed after each interviewee's talks. Hence, the

final interview guide evolved over time (see appendix A). The inclusion of an interview guide had certain advantages: First, it ascertained the researchers that the domain has been properly covered and key issues are not left aside. Second, appropriate questions rather than impromptu ones with plausible wordings were posed.

Data collection Procedures

The data of the present research were collected in three steps:

Step 1: at the beginning of the academic year 2016, a tentative interview guide/ protocol was developed. After reviewing the relevant body of research on reading strategies, the researchers realized six questions as appropriate to be included in the interview guide.

Step 2: the developed interview guide was trialed with four participants before it was used for the main study. The results of piloting the guide led to the refinement of protocol wordings and additions of two more questions.

Step 3: a 3-session interview was held with the same participant to elicit meaningful data. The first interview session meant to make the interviewee and interviewer familiar with each other, and also suggested the interviewees some ideas about the areas they are to be interviewed in the second session. The intermission between the first and the second session allowed the participants to reflect upon the matter and prepare themselves for the forthcoming session. Also, the researcher could consult the previous interviews and keep his interview guide up-to-date. The real interview was conducted with every participant face to face and in the form focus-group discussions in the second session. Certain sub-steps were followed by the researchers in the interview sessions:

- a) The interviewees were allowed to use any language either L1 or L2 they felt comfortable with to freely express their viewpoints
- b) They were informed about the purpose of the study and rest assured that their personal information would be kept confidential and their viewpoints would be used only for research purposes,
- c) They were informed that their voices would be recorded and providing they agreed, the recorder was opened. Furthermore, before turning the recorder on the researchers asked few ice-breaking questions to make the participants feel at ease.
- d) The researchers took a neutral and facilitating stance and did not actually meddle into participants' talks unless they were discussing points off the main topic.
- e) Back channeling signals (yeah, nods, uh-huh) and feedback were given to the participants to prevent them from feeling a monologue was running.
- f) They were kept motivated to go on and freely express their idea
- g) The researchers took notes of the main points and asked clarification questions at the end of the interview to make the points tangible for themselves
- h) The researchers signaled the end of the interview by saying do you have anything else you would like to share with us and do you know anyone who can share his ideas with us?

At the third and the final interview session, the lame data and misunderstandings were targeted since the researchers analyzing the transcripts and filed notes of the last two sessions grabbed the opportunity to focus on the misunderstandings and vague points. As a result, they required the interviewees to return to the matter and clarify on it. Also, a synopsis of the salient points analyzed and transcribed by the researcher were copied and handed to the participants.

Consequently, the participants reviewed their own view points and added/ removed any inconsistency.

As mentioned above, this procedure was one way of examining the accuracy of findings known as validity or credibility of finding. Reliability or dependability, however, shows that the approach used by the researcher is consistent across diverse researchers and different projects (Gibbs, 2007). In particular, the notion of dependability was ascertained through three steps. First, the researcher himself constantly compared the data with the assigned codes and the follow up memos to assure that the codes and their definitions concord the stretches of phrases/ sentences. Second, twenty percent of the data were independently cross-checked by two more coders and compared in terms of stability and consistency upon the given codes. As a result, consistency was achieved by more than 80% among the coders. Miles and Huberman (1994) recommend that consistency among coder be in accord at least by 80% for an acceptable qualitative dependability index. Third, the researchers and the coders held documented meetings and shared their independent coding in an attempt to reach agreement.

Credibility or authenticity, nonetheless, takes into account the accuracy of findings from the view point of researchers, participants and assumed readers (Cresswell & Miller, 2000). Put it differently, the researchers applied a variety of procedures to assess the trustworthiness/validity of findings to make the readers convinced the findings are accurate: a) the final description of the findings was given back to the participants to inspect if the data are in fact derived from participants' viewpoints. it is worth mentioning that a three-session interview was conducted for each and every participant in the present study, where in the third session, the transcription of every individual was given to him and he was given an opportunity to comment on the findings, this strategy is known as member checking. B) The researcher asked help from a peer debriefer to review the study and pose questions about the phenomenon under study. In short, an expert other than the researcher checked the genuineness of the data. C) The researchers also included an external auditor or an independent investigator who neither knew the researcher nor was familiar with the project to review the whole study. He went through the transcription and scrutinized the relationship between the research questions and the collected data. Finally, he agreed that the data are genuinely gathered, transcribed and interpreted.

Data Analysis Procedure

Data analyses were carried out with the help of MAXQDA software. MAXQDA is an advanced analytical software for data of qualitative nature. The program brought about a faster and more accurate analysis of data. The first step in the analysis of data was familiarity and organization. Put it differently, the researcher transcribed the audio files recorded during each interview phase and read them several times. In addition, the field notes written for each and every interview session were added and matched to the transcriptions pertinent to each individual. After getting familiar with the data and making a thorough list of transcriptions, they were imported into MAXQDA software. Each transcription was given a name relevant to the place and the person with whom the interview sessions were held. On the whole, 28 datasets were inserted and sorted out in the software. Having organized the data, the researcher commenced the coding and reducing process in the grounded theory which comprises three distinct stages, namely, open coding, axial coding and selective coding. In the first stage, each transcription file was coded separately and the researchers coded important words or phrases in either in vivo codes or a label that best illustrated the gist of each segment. In short, the data were fractured into small segments and as many labels as possible were assigned to the data. Also, the software has an additional field wherein memos were added to the coded data. Memos, in fact, capture the

thoughts and feeling of the researchers and play a major role in summarizing and organizing the data for the second stage. They also, help the researcher understand what a particular code indeed means. The final outcome of this stage was a large number of codes and their frequency of occurrences (244 codes).

After initial coding was over, the fractured data in the previous stage were connected and compiled into workable categories (32 categories). In simpler terms it was the starting point of the reduction of a large number of codes and subcategories into smaller categories to frame a better understanding of data. At this stage, constant comparative method was applied to the data to combine the codes and group them into similar and/ or different groups. At the next and final stage which is called the most arduous of the three stages, selective coding was executed. Selective coding is, thus, the connection and amalgamation of categories into themes as the final integration of data. It is to a large extent a giant step toward the establishment of the overall model of discipline-specific reading strategies. In general, the researchers thought beyond the data and refined the categories into six themes with the help of previous models and existing body of literature. Therefore, the tentative model of discipline-specific reading strategies comprised six themes.

Results

In brief, six main factors were extracted as the consequences of grounded theory. These factors and the follow up examples are given in detail as follows:

A: Previewing the Content

As elicited from participants' view points, this strategy embodies a pretty large number of sub-strategies. They can range from reading the title and having a perfunctory look at the body of text to skimming the text and finding out what a general impression of a text is. The other strategies of this type as pulled out from face to face and focus-group interviews contain activating background knowledge and previous schemata on the topic as the result of going fast through the lines of a text. Previewing also can help one realize whether he/ she is interested in the topic to peruse it to the end or it may not gear with your expectation, this strategy is labeled as 'identification of the text purpose' by the researcher. The following embraces comments taken from participants' viewpoints:

1. *First, I read the title^{a1} and in case I can understand it, I have a perfunctory glance at its body^{a2}.*
2. *I usually read or skim the text to the end^{a3} to obtain a general idea of the text.*
3. *I think and associate it with the previous materials^{a4} I know. For example, I have studied a title before and a writer has the same opinion, for example Vygotsky has an idea and I want to see what another scholar is going to tell about that material.*
4. **Focus- Group:** *I first should know what the text is about. Is it technical, general or semi-technical and so on? In other words I prefer, first, to know the type of the text. Because I don't read the text unless I know why and for what purpose I am going throw a text^{a5}.*
5. *The first strategy I use is skimming^{a6}, that is, I try to obtain a general idea of the text^{a7} to see what the text is about. So I look at the title and headings^{a9}. Even, most of the time after this stage, I decide to read the material or put it aside.*

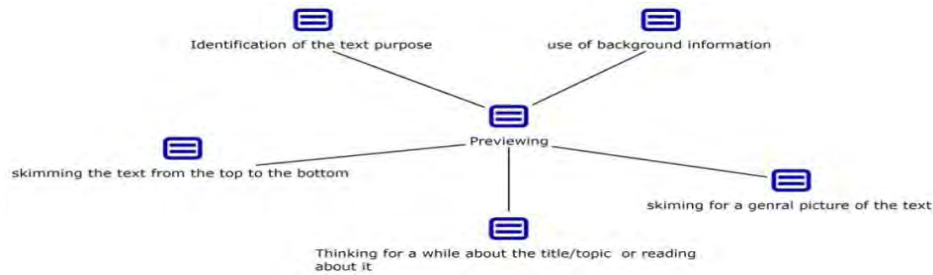


Figure 1. Previewing and its related categories

B: Recognition of the Salient and Pronounced Features

Another highly reported strategy by postgraduates of TEFL is to recognize the important parts and leave out the unnecessary ones. This strategy, in brief, employs highlighting and underlying as two techniques which can remind the readers of the salient points. Skipping repetitive words, and additional examples are the other strategies of this type. Furthermore, the knowledge of paragraph writing and how it is formed is believed, by some students, to be informative. As a matter of fact, the organization of the main points in a paragraph follows a rather fixed format and, texts are organized in special ways. Thus, the readers can easily expect where the main point and the related examples are located. Moreover, pictorial signs such as tables and graphs in comparison to verbal signs are recounted to better help us realize the salience of the matter. Below are some genuine stretches of talk mentioned by postgraduate EFL learners:

1. *First, I give priority to the important points^{b1} and underline them^{b2}. When we study technical texts, we have prior knowledge about them and our mind is not completely blank so we try to skip what we already know and highlight only the important points^{b3}.*
2. *I study a text very slowly for the first time but I do not intend to memorize it. It is only for the goal of finding important and unimportant points^{b4}. I study the points with low pace so as to trace the important points^{b5} and leave no important point unseen^{b6}.*
3. *Salient points under each heading^{b7} or in separate paragraphs should be identified.*
4. *Focus Group: It means that I look for some signs in the text^{b8} in front of me. In doing so, I believe that pictorial signs such as tables and graphs^{b9} in comparison to verbal signs, can better help us comprehend the text at hand. I consider them general methods to study and comprehend a text.*
5. *Focus group: One of the methods to study and comprehend texts is that the reader pay attention to the organization of the text^{b10}, I mean texts are organized in special ways, a text may have been organized chronologically, or based on the degree of importance, usage^{b11} and so on.*

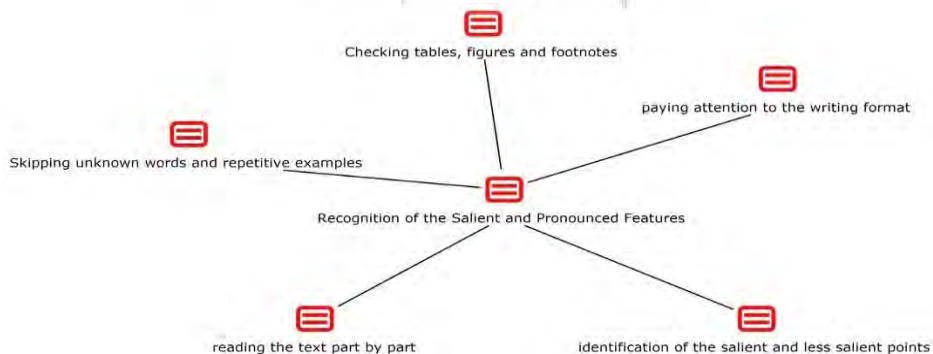


Figure 2. Recognition of the salient and pronounced features and its related sub-categories

C: Emphasis and Clarification upon the Significant Features

A variety of strategies point to emphasis and clarification upon the salient features, for instance, reading or rereading highlighted sections, drawing pictures and outlines to capture the synopsis of a sequence of paragraphs. Equally important are strategies such as writing key words that are used frequently by a particular writer in the margin of a text to follow his/ her line of arguments, contextualization of difficult points to make sense of them. Moreover, patience and tolerance of ambiguous points as well as reading the important points aloud are specific strategies which are cited by postgraduate students in TEFL. In addition, summary and note writing with readers' own words in the margin of a text and writing the interpretation of a text in readers' first language are frequently reported in interview sessions. Altogether, paying attention to cons and counter issues and adding personally touched examples in real life to the reading points can help readers focus on the principal issues. Examples of afore-mentioned strategies are listed below:

1. *For the first time I read the text slowly but **for the second time I read it aloud**^{c1}. Then I come back to **read the important points loud**^{c2} to learn and memorize them.*
2. *But if the text is of prime importance I might start to summarize and **draw pictures in order to graphically summarize the issue**^{c3} and **have a mind map of it**^{c4} but I do this in special occasions.*
3. *If I hesitate that I missed some points I read it for the third time to comprehend it well. Here, I **write down its technical words**^{c5} and I try to keep in my mind that a scholar has used such words a lot.*
4. *I retrieve the meaning of the word **according to the context**^{c6} which it is used in.*
5. **Focus group:** *If an example is in another language or culture, although there is not an objective example in Farsi, I spend some time to comprehend that text. In other words, **my ambiguity tolerance is high**^{c7} and I have a bad feeling and am not satisfied with myself until I solve it.*
6. **Focus group:** *Something that I usually do here is that I hold a pencil in my hand and do two things: first **I highlight the important points**^{c8} and second **I take notes of important points in my own language in the margins**^{c9} of the pages in the form of a sentence or expression.*
7. **Focus group:** *But we need to find a suitable equivalence for the word/ sentence in our first language^{c10} to feel it with the lenses of the Persian language.*
8. **Focus group:** *As far as I have the same opinion as the writer, I do not pay much attention to the text. However, **I pay more attention to those parts that I have a different opinion with the write**^{c11}.*
9. **Focus group:** *It is part of the analysis of the text to **compare real things in our life with what has been written in the text**^{c12} to facilitate the process of understanding.*

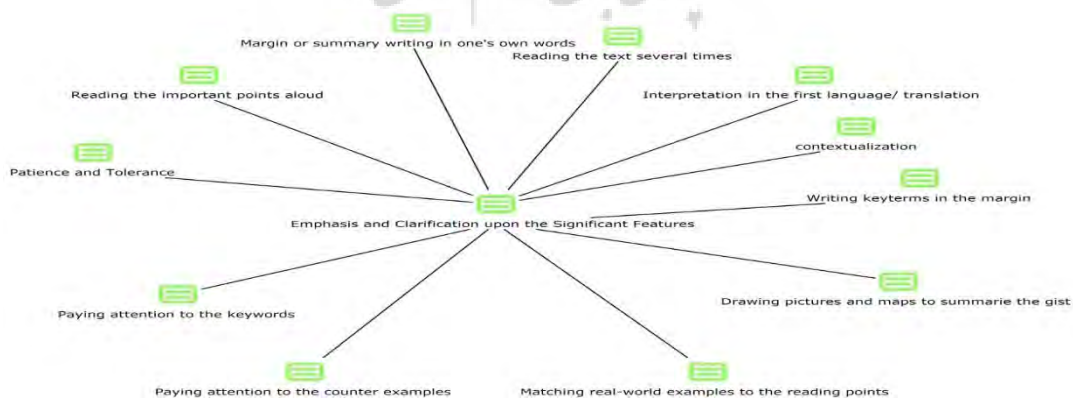


Figure 3. Emphasis and clarification upon the significant features

D. Consulting Auxiliary Sources

Consulting auxiliary sources, operationally speaking, refers to sources other than the available reading text/ material to help the reader comprehend the text with meticulous lenses. Referring to external sources such as technical dictionaries and / or encyclopedias, consulting experienced peers and experts, goggling the key terms, reading the same topic on the other books or papers, inspecting the book reviews and extracted papers out of book/ thesis and checking the online power points presentations are the typical examples of this strategy. Genuine excerpts of the participants are listed below:

1. *The easiest and most effective way that comes to the mind of the reader is **using the related technical dictionary**^{d1} that he has access to and helps him to understand the text better.*
2. *Second, whenever I do not understand a matter although I have read its definition, I **send an email to those who are expert in the field**^{d2} and ask them to explain and interpret it for me.*
3. *I refer to the net and find simpler explanations of the vague issues^{d3} in the book and search for the other related articles^{d4}.*
4. *If I face problem in a text, I will check other books that have explained the^{d5} topic more easily. I usually have many several books about a course. If I see I cannot understand a topic in a book, I check the same topic in other books^{d6}.*
5. *The other strategy I use when I have no time is book review^{d7}. I use book review strategy for a book of 500 pages^{d8} that I need to study it in a day.*
6. *An article extracted from that book^{d9} is very useful.*
7. *Focus group: Even Power Points downloaded from the net^{d10} contain examples or pictures that help us understand ambiguous and complicated examples.*

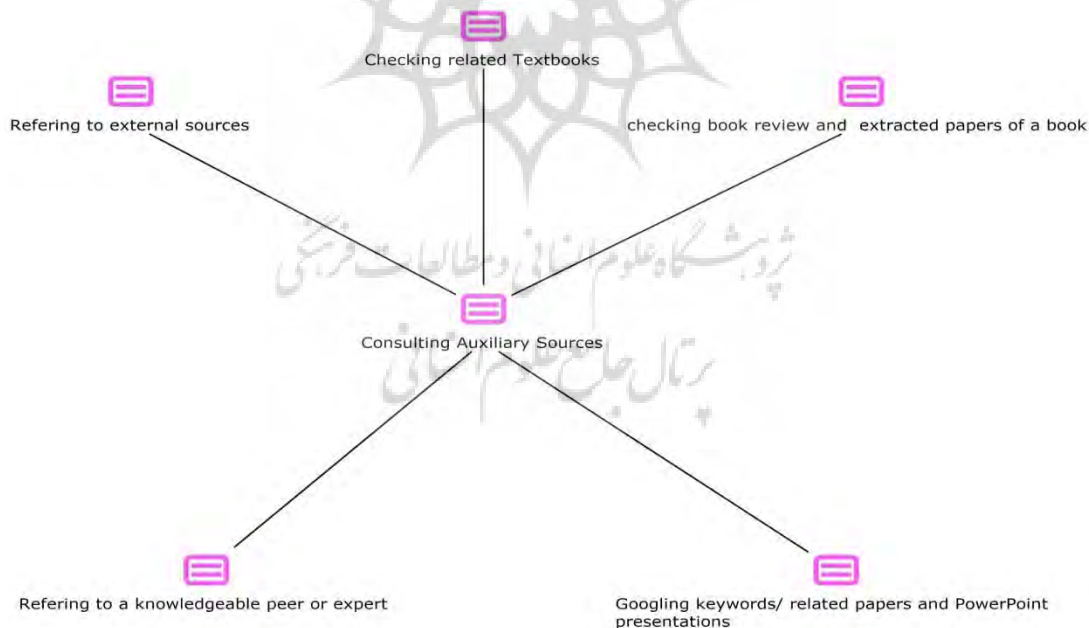


Figure 4. Consulting auxiliary sources

E. Ruminating and Reflecting upon the Text

After the prominent information had been processed in the previous stages and a rather rudimentary understanding of information was achieved, the next phase is to think deeply about

the information pulled out from the content. In other words, the reader should analyze the content from different angles, and sort it out into codes or/ and maps that can be easily returned to later at any time. Strategies of this type involve critical thinking, returning to the read points during breaks to give them a second thought, focusing on the summarized points to fill in any possible gaps the reader assumes might exist in his/ her informational pyramid as well as matching details to the whole picture to frame a complete and organized thought from top to bottom. In the following lines, real utterances of participants are summarized:

1. *When I comprehend a part of a text, I stop for a while and give it a second thought^{e1}. In other words I ponder over the matter to make it stay in my mind^{e2} properly. In many cases, I might reject the idea mentioned by the author^{e3} or I myself present a more comprehensive explanation^{e4}. I, generally, believe in critical thinking^{e5}.*
2. *Generally, I cannot sit in a place and finish my studies without intervals^{e6}. I always find a convenient place and study a page then walk along for some minutes after that I start studying a new page. I always ponder about the matter during intervals^{e7}.*
3. *It sounds natural to reflect upon my notes^{e8} since my notes are the gist of the main points and create sequence among the items in terms of importance. Now, the text is more summarized and brief and I can focus on it more^{e9} and finally, I make logical relationship among them^{e10}.*
4. *Having completed my studying, I write an outline for myself and reflect upon it^{e11} to arrive at logical interpretation between and among items^{e12}.*
5. *Focus-group: As I go through the text for the first time, I have no intention of organizing my information, but the story is different for the second time, points should be related to one another; paragraph by paragraph in order for the informational pyramid to get shaped^{e13} and become neat otherwise I assume I have picked up nothing. It's a must.*

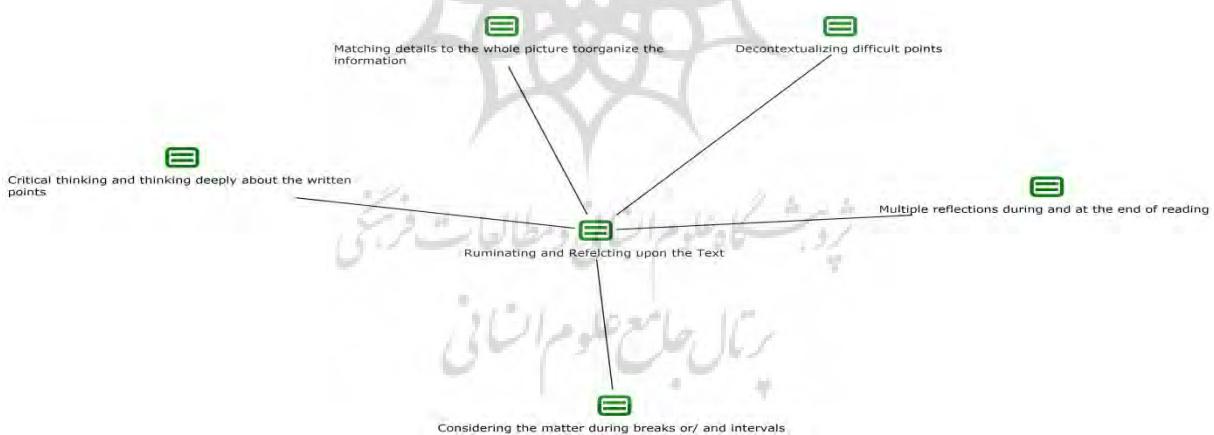


Figure 5. Ruminating and Reflecting upon the Text

F. Reviewing the gist of materials

These strategies will come at play after information goes through channels of analysis, synopsis and organization. Consequently, the reader makes an attempt to instill the points into his mind. Typically, reviewing the summaries or the gist of materials either immediately or after a number of days, having a quick glance at the main heading or sub-heading and closing one's eyes to review the points from the scratch are among the possible instances of reviewing. Below are certain utterances pertained to this particular strategy:

1. For the second time, **I only review my own summaries and/ or highlighted points^{f1}**.
2. Finally, I pull out the highlighted points and **read or/ and them after two or 3 days^{f2}**.
3. **Review is an indispensable part of my reading^{f3}**, for instance, as I walking or doing household chores, **I try to flashback on what I have read^{f4}**.
4. When I finish reading the text once or twice carefully, **I look at the main points I have read^{f5}**, in other words, quickly I review the main headings and subheadings.
5. I summaries the main points and **finally I return to my summaries^{f6}** and read them.

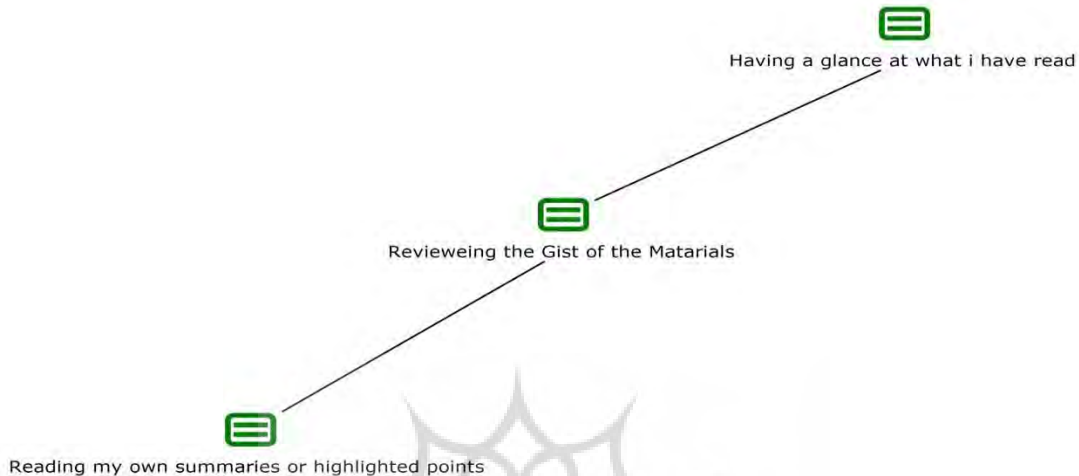


Figure 6. Reviewing the gist of the materials

The Emerging Model

As stated in the method section, this model is grounded in the data which were collected from face to face interviews and focus-group discussions with Iranian TEFL Postgraduate students at Shiraz University, Isfahan University, Yazd University and Islamic Azad university of Bandar-Abbas. The data were, then, analyzed according to Strauss and Corbin's (2007) systematic approach for codification and analysis of the data. Accordingly, the final model involves six main themes (See figure 6) and 32 categories (see Table 1).

Table 1. The Gist of the Main Themes and Categories of the 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
Recognition of the Salient and Pronounced Features	5. Paying attention to the Writing format 6. Checking Table, figures and charts 7. Identification of the salient and less salient points 8. Skipping unnecessary words and repetitive examples 9. Reading the text part by part

<p>Emphasis and Clarification upon the Significant Features</p>	<p>10. Paying attention to the key words 11. Patience & tolerance 12. Reading the important points aloud 13. Margin or summary writing in one's own words 14. Reading the text for several times 15. Interpretation in the first language/ Translation 16. Contextualization 17. Writing key terms in the margins 18. Drawing pictures and maps to summarize the gist 19. Matching real-world examples to the reading points 20. Paying attention to counter examples</p>
<p>Consulting Auxiliary Sources</p>	<p>21. Referring to external sources 22. Referring to a knowledgeable peer or expert 23. Gogling key words on the net/ related papers and PowerPoint presentations 24. Checking related textbooks 25. Checking book review & extracted papers of book</p>
<p>Ruminating and Reflecting upon the Text</p>	<p>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</p>
<p>Reviewing the Gist of Materials</p>	<p>31. Reading my own summaries or highlighted points 32. Having a glance at what i have read</p>

As Table 1 shows, the emerging model of discipline-specific reading strategies comprises six main themes and 32 categories. The components of the model were taken from face to face and focus group discussions with postgraduate students in the field of TEFL. Analyzing the data, the proposed model of discipline-specific reading strategies was posited as follows in Figure 7.

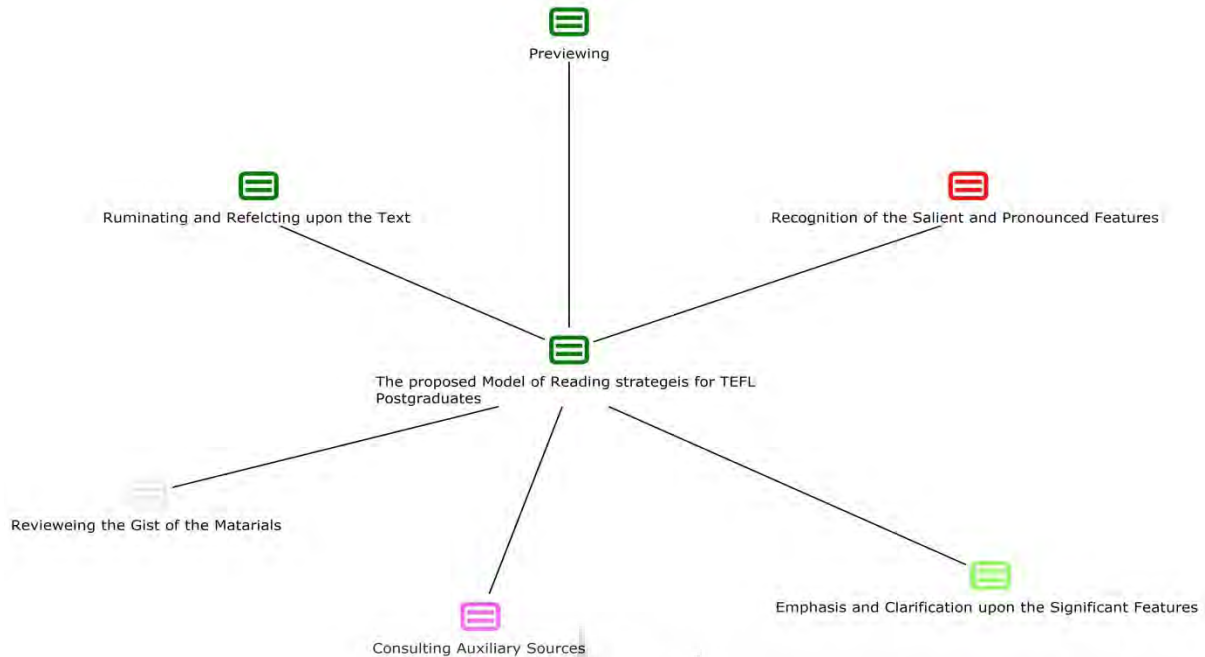


Figure 6. Presented Model of discipline-specific reading strategies in the context of Iranian TEFL Postgraduate students

Discussion

The results revealed six main discipline-specific reading strategies. Nasrolahi et al., (2015) found reading strategies as falling into three camps, i.e., rereading, while reading and post reading activities. The results of this study is congruent with their studies bearing in the mind that they found setting the purpose, skimming and background knowledge are three of the highly employed strategies among Iranian EFL students. Therefore, it can be assumed that previewing the content in this study is to some extents similar to pre-reading activities. Furthermore, while reading activities such as note-taking, summarizing and rereading are also used in their study, but recognition of the salient features as well as reflection upon the text seems to be two completely missing reading strategies. Unlike high school books which were the case of Nasrolahi et al., (2015) barely covering technical issues, discipline-specific texts are full of scientific and academic information which should be first identified, that is recognition of the salient features and then clarification. Even, this study has jumped one more step further and stressed the two strategies of thinking about what you study and critical thinking. Hence, the reader can accept/reject or even reformulate and modify a piece of information.

As to third factor of this study, that is emphasis and clarification upon the main points; a couple of studies have provided confirmatory findings. For instance, patience and tolerance as well as reading the text several times has been recited very often by postgraduate EFL Learners. Hence, the findings support the idea that academic reading is a very thoughtful, purposeful, and serious process (Shuyun & Munby, 1996). In fact, readers should not take the points for granted and should tolerate the ambiguities and look for solutions to the ambiguities rather leave them behind and move forward. Moreover, the Findings of this study lend support to 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.

Checking auxiliary sources ‘the fourth factor’ such as the use of online resources, simpler papers and easier explanations of difficult points and checking PowerPoint presentations are

barely reported in the literature. Nonetheless, they can be working solutions to help an individual become independent. Part of this tendency arises from the tenant that human beings tend to process the information that requires less cognitive efforts and more processing effects (Wilson & Sperber 2002). In other words, when participants check simpler explanations of a difficult text, they spend less cognitive effort to interpret the message and it has more effect on their understanding.

The fifth factor of this study ‘ruminating and reflecting upon the text is’ is also manifested in Sheory and Mokhtari’s (2010) global reading strategies. They referred to critical thinking and critical analysis of the overall content of the study. Also, the results affirm Munby (1996) on the grounds that academic reading is thoughtful process.

The researchers did not find any trace of the sixth factor’ reviewing the gist of the materials in the previous literature. Hence, the findings might add a missing compartment to the body of knowledge. To the researcher’s best knowledge the implementation of this strategy consolidates the points in the mind of the reader.

Also, the findings of this study support Sheory and Mokhtari’s (2001, 2002) model of reading strategies, but the neatness and the order of reading strategies components proposed in the present research can be touched upon more easily and used more practically. In other words, if the six main themes proposed in the present model be followed meticulously and step by step by postgraduate EFL learners, a degree of certainty can be given to them to comprehend the text appropriately. Sheory and Mokhtari’s model, although seems to be thorough in nature and embodies a variety of reading strategies, it may suffer from certain shortcoming. On the one hand, it cannot be easily understood by EFL learners and does not follow a hierarchical order in which a technical text should be approached. Moreover, it is general in nature and it cannot be advised as a proper model for discipline-specific reading texts. They look for generalizability rather than particularity of text and context. As it can be seen, the model posited in the present research discerns a more clear-cut picture of how a technical course should be approached and the gaps are properly filled. Hence, there is no jump from one strategy to another. Generally speaking, Sheory and Mokhtari’s model seems to better represent strategies for approaching reading comprehension strategies; however, the present model delves in detail into the technical reading strategies used by Iran TEFL students.

Conclusion

This study concludes by proposing a model of reading strategies for TEFL postgraduate students. As a matter of fact, the proposed model can help postgraduate students move away from teacher authority to students’ autonomy in terms of technical reading. In other words, they would be mindful of different and varied reading strategies and can control and reflect upon their own strategies. As a result, they might use reading strategies more effectively.

This shift from teacher autonomy to learner autonomy has been suggested in the post-method area where the focus lies more on learner-centered curricula. Congruent to swap of teachers and students’ roles in the contemporary era, the proposed model can contribute to role-replacement of teachers and students since it has been derived from students’ own view points for their own benefit. Little (1991) argues that learner autonomy is “essentially a matter of the learner's psychological relation to the process and content of learning—a capacity for detachment, critical reflection, decision-making, and independent” (p. 4). As a result, students are assumed to lead their own learning and take more active roles. Reading disciplinary materials is one of the areas where learner autonomy can be practiced.

Also, the results can be presented to freshman postgraduate students in a one-day workshop to make them aware of the designed model. In addition, the disciplinary model can be compared with the available models of reading strategies in the literature to underscore the nuances of discipline-specific reading strategies. The same can be included as a book chapter for study skills or even into teaching skills and components of language as an optional course in the syllabus of M.A program in TEFL.

Although the results of this study are limited to four universities where postgraduate students are taking courses in TEFL, as Greene and Caracelli (1989) suggest particularity instead of generalizability as the hallmark of qualitative studies, this study did not have any intention for generalizing the findings. This model, however, is at its outset, future studies of this type can quantize the proposed model and design a questionnaire based on the factors and categories of the present model and empirically test it with a large population of Iranian postgraduates students. Also, the proposed model can be experimentally trialed in an intervention program among TEFL postgraduate students where the researcher requires postgraduate students to brainstorm their perceived strategies using a think aloud protocol in the pretest. After instructing the proposed model with real technical texts in TEFL, students will take a posttest of reading strategy where they are supposed to use think aloud strategy. Finally, the results can show if the interventions of reading strategies has changed the initial strategy use of students.

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Appendix

Interview Guide/ protocol

- 1) What strategies do you use when you read a technical text, such as Methodology, Testing, etc. in English?
- 2) What do you do when you read a text several times, but you cannot understand it?
- 3) Do you skip unnecessary words/ paragraphs?
- 4) Do you check tables/ graphs and footnotes?
- 5) Do you think critically about what you read or accept information as they appear in a text?
- 6) Do you review your summaries or notes?
- 7) Do you organize the information you come across in lengthy texts? How?
- 8) How do you identify what is important in a text?