

Contribution of Applying Translation Based and Strategy Based Methods (Information Synthesization, and Visualization) to Teaching ESP Reading Comprehension to Iranian Undergraduate ESP (Accounting) Learners

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Abstract. The purpose of this study was to investigate the contribution of applying translation-based and strategy-based methods (information synthesization and visualization) in teaching ESP reading comprehension to Iranian undergraduate ESP (accounting) learners. This study intended to deal with the problem of teaching ESP reading comprehension. The design of the present research was a quantitative pretest-treatment-posttest quasi-experimental research. Ninety students from 120 students whose average was two standard deviations below and above the mean were chosen and randomly assigned into three homogeneous groups (A, B, and C) with 30 participants in each group. A pretest has been administered to all the participants, showed that the three groups were not significantly different in ESP reading comprehension ability. The material has been taught based on the strategic-based method in group A, and the emphasis was on information synthesization and visualization strategy. In group B the texts have been taught based on translation processes, and in group C the combination of translation

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processes and strategy-based methods have been employed. Then the post-test has been administered, the result revealed that the mean difference was more in favor of group C who received treatment through focusing on the combination of translation method and strategy-based methods than of those who received treatment via focusing on each process separately in teaching ESP reading comprehension. The result of the study could help ESP teachers by applying proper strategy methods in addition to translation-based methods.

Keywords: Reading comprehension, English for specific purposes, visualization, synthesizing information, translation

1. Introduction

It is a fact that English is an international language with great importance in education, economic, political, and cultural contexts. In the educational context and EFL (English as a foreign language) context, learners need reading comprehension skills more than other skills. ESP (English for specific purposes) classes in which reading ability plays a crucial role in the students' academic success.

Reading comprehension is a complex phenomenon, and the ability to understand meaning from the written text for some purpose involves cognitive and metacognitive skills in its process. Reading comprehension is the effect of several subcomponent variables together, includes numerous models and theories of reading comprehension: inference, reading comprehension strategies, reading vocabulary, word reading, and prior topic knowledge (O'Reilly & McNamara, 2007).

According to Zimmerman & Hutchins (2003), good readers use seven strategies to create meaning during the reading process: they create mental images by using the visual, auditory, and other relevant sensory images, use pertinent background knowledge to improve understanding, ask questions to illuminate, make predictions and focus attention on the main points, make inferences by using their prior knowledge and information from the text to make predictions, determine and distinguish the most important ideas of the text, synthesize information of to gain the general meaning, use problem-solving strategies to understand better.

Many researchers from long ago have introduced different strategies for promoting reading comprehension, and pieces of evidence and

studies about the impact of applying these strategies in the general reading comprehension skills indicate the effectiveness of strategy instruction, the notion of the effect of using these strategies in teaching ESP reading comprehension along with applying the translation technique in university-level has not scrutinized in the Iranian context. ESP students who need to know scientific knowledge, general English, and linguistic knowledge have many problems utilizing strategies in the ESP context. The rationale behind focusing on investigating the ESP and choosing a translation, visualization, and Synthesizing information was the difficulties teachers, students, and those who try to read ESP texts encounter. They should learn to use different reading strategies, translate, and struggle with structure and new vocabularies in teaching, learning, and reading ESP texts. So the researcher investigated these three strategies to see the contribution of translating, constructing mental images, and synthesizing information on ESP reading comprehension during reading.

The findings of the study might help syllabus designers to revise the objectives of a syllabus design. It might necessitate a change of attitudes towards what it is that makes up a syllabus. This study has theoretical and pedagogical implications for those who teach ESP courses. In addition to this, the students themselves could benefit from the conclusion and apply it in reading comprehension. This study could help those dealing with foreign language teachings, such as syllabus designers, material developers, test makers, and the like. Changing the way of teaching ESP reading comprehension help ESP learners to read efficiently and accurately.

This research investigated the effect of translation-based and strategy-based (information synthesization and visualization) ESP reading comprehension teaching to Iranian undergraduate ESP reading comprehension (accounting) Learners', and to see which one plays more beneficial roles in teaching ESP reading comprehension. The independent variables were translation-based and strategy-based (information synthesization and visualization) teaching ESP texts. The dependent variables were Iranian undergraduate ESP (accounting) Learners' reading comprehension achievement. Considering the impact of translation, information syn-

thesization, and visualization would take a forward step in ESP reading comprehension pedagogy. To this aim, the following research questions have proposed:

Q: Is there any statistically significant difference between the effect of ESP reading comprehension ability of participants who use translation based, who use the strategy based (information synthesization and visualization), and who draw on both the translation based and the strategy based strategies as measured by the tests of ESP reading comprehension? Research Hypothesis of the present study is as follows:

Ho: There is not any statistically significant difference between the effect of ESP reading comprehension ability of participants who work with translation based, who use the strategy based (information synthesization and visualization), and who draw on both the translation based and the strategy based methods as measured by the tests of ESP reading comprehension.

2. Litreture Review

Learning can play an essential role in our life, and we all need education in our lives. Therefore, teaching is an issue for investigation. Nowadays, English is the language of more than 2 billion people, and it is the language in research, publication, and instruction. Therefore, conducting research studies regarding learning and teaching English can be considered worthwhile.

Reading is used for many reasons unconsciously, but strategies are the activities that are selected consciously and deliberately for particular purposes. When a skill is applied intentionally, it can become a strategy. Reading strategies reveal the ways readers interact with written text to have beneficial reading comprehension. Successful second/foreign language learners are those who consciously apply appropriate language learning strategies to improve performance in learning and second language use. Strategies are conscious actions, and the learner is actively involved in the selection to improve their language learning. Language learning strategies can be observable and mental. The advantages of choosing proper language learning strategies and awareness of other lan-

guage learning strategies may help them make better progress and accomplish their goals (Carrel, 2001).

McNamara & Magliano (2009) emphasized that the process of reading is a task of reader and text factors together that takes place within a larger social context. Reading is an interactive process in which readers construct a meaningful representation of a text using effective reading strategies. Effective reading strategies are considered essential skills that focus on the proficiency of reading comprehension. Reading comprehension can be defined as the ability to obtain meaning from the written text for some purpose. Reading comprehension is an essential component of education and involves cognitive and metacognitive skills in its process.

McNeil (1992) stated that reading comprehension is a process of obtaining information from context and integrating disparate elements into a new whole, and it is the process of applying the existing knowledge (schemata) of the readers to create meaning and interpret the text. Also, Vacca, L., Vacca, & Gove (1991) stated that reading comprehension is relating the textual information to pre-existing knowledge structures or schemata which reflects represents the background knowledge, conceptual understandings, experiences, attitudes, skills, values, and procedures a reader brings to a reading situation. To understand the text, a reader must activate the schemata by connecting new knowledge to the knowledge they already possess. In the process of reading, meaning transacts between the reader and the writer. Without meaning (comprehension), the act of reading is a vacant event. The text helps the reader to construct meaning by providing cues. Reading comprehension is the need for EAP students. Students and teachers encounter problems regarding the materials, sources, and general English proficiency levels (Alavi, Kaivanpanah, & Taase, 2018). Gholami, Ahghar, & Ahghar (2012) investigated the effects of teaching cognitive and metacognitive strategies on EFL students' reading comprehension. The results revealed that teaching cognitive and metacognitive strategies enhanced intermediate student's reading comprehension. This fact suggests that reading strategies are essential in helping students reading comprehension development. Oakley (2011) introduced five cognitive strategies; summariz-

ing, visualizing, questioning, making inferences, and predicting. Singhal (2001) defined summarizing, paraphrasing, analyzing, and using context clues as cognitive strategies.

Grabe (2009) said that reading is a strategic process that needs to use different skills and knowledge during reading to help gain information, such as selecting key information and main ideas, collecting, organizing, and summarizing information, and correcting comprehension breakdowns. These definitions of reading indicate that comprehension results from certain mental processes and that readers use a vast number of strategic processes during reading as they interact with the text. He also divided the reading processes into two sections which occur in working memory: lower-level abilities include certain morphological and syntactic processes, phonological awareness, automatic word recognition, and other semantic processes and higher-level abilities involve processes that are closely tied to certain techniques that the reader consciously employs to obtain meaning from the text. These processes are conscious, and related to metacognitive awareness, and demonstrate strategic processing to build a coherent understanding of the text.

Identifying the text structure, predicting, making inferences, monitoring comprehension and deducing meaning-based of his or her prior knowledge and reading goals, and finally constructing a coherent mental representation (situation model) of the text in his or her memory, which reflects the overall meaning of the text are the strategies of a reader (Kintsch, 2012). Pilonieta (2010) described strategic procedures as conscious, intentional, and flexible plans readers employ and adjust with a variety of texts to perform specific goals. English for the Specific Purposes or ESP as a single field in the 1960's has resulted from many events like the Second World War in 1945, the rapid development of science, the growth of science and technology, the use of English as the international language of science, technology, and business, increased numbers of international students studying in the UK, USA, and Australia, and the increased economic power of certain oil-rich countries. In fact, in General English teaching, all four-language skills; listening, reading, speaking, and writing are focused equally but, in ESP it is a needs analysis that determines which language skills are most needed by

the learners, and the syllabus is designed accordingly (Rahman, 2015).

Visualization is defined as the process of viewing images that happen in the mind, and refers to all types of visual imaging and mental imaging or produced in the mind, especially while reading a descriptive or narrative piece of literature. As far as reading is concerned, the product of visualization is an image relevant to the events, scenes, characters, or ideas described in the text. Visualization is a strategy that good readers utilize when comprehending a text (Armbruster, Lehr, & Osborn, 2001). The results of some studies in Iran confirmed that reading comprehension by using visualization would cause better reading comprehension among EFL learners. Visualizing as a motivation enhances reading comprehension (Niknejad & Rahbar, 2015). According to Dash & Dash (2007), visual aids include Projected aids, Audio aids, Hardware, Big media, and two or three-dimensional aids such as films, slides, picture TVs, computers, books, magazines, printed materials, chalkboards, bulletin boards, static models, dynamic models.

Synthesization is a building of patterns or structures from a variety of components with emphasis on creating a new meaning or a new structure from the elements. Some keywords involved in synthesis are: combine, create, design, and summarize. Synthesization is a kind of “creation” and changed places with “evaluation” as the top category in the domain. The creation category is defined as putting together elements to make a whole, including the elements of planning, generating, and producing (Lundstrom, Diekema, Leary, Haderlie, & Holliday, 2015). McGregor(2007)stated that summarizing and synthesizing are two reading comprehension strategies that are often confusing despite the differences. Summarization is identifying key elements and condensing the main idea into their own words. Synthesizing is combining ideas of the text instead of just restating the important points of the text. Synthesizing is creating original insights, perspectives, and understandings by reflecting on texts and merging elements from text and existing schema. Synthesizing is putting pieces together to see the information in a new way.

Armbruster (2010) stated that for summarizing the texts, the readers determine the main points. They distinguish the main idea from the sup-

porting information, organize them, and also paraphrase the information in their own words. Synthesizing takes the process of summarizing one step further. Synthesis takes place during and after reading. It is the process of creating a mental plan for what we are listening to, reading, experiencing, and revise it when we encounter, evoke, and recall new information. Synthesis is about organizing the different pieces to create meaning much greater than the sum of each shiny piece (Keene & Zimmermann, 2007). Good readers apply the synthesizing strategy during the reading process by gathering, organizing the information, and adding it to the schema and their background knowledge of their mind to gain a better understanding of the text. Synthesizing information helps readers understand the main idea of the text. Synthesizing is a crucial strategy for readers to apply in reading to gain messages from the text (Klein & Whitehead, 2012).

Translation played an important role in English language teaching for a long time, but when communicative methodologies became eminent, they have become abandoned. Although translating is not advocated for English language practitioners, no one can deny it in teaching languages (Cook, 2007). Scholars introduce five competencies for a translator, linguistic competence, translational competence, methodological competence, disciplinary competence, and technical competence (Oraki & Tajvidi, 2020). Kavaliauskienė (2009) summarized major objections of using translation in language teaching and said that translation encourages using L1 instead of L2, does not help students develop communication skills, translation activities may be proper for students who prefer verbal-linguistic or analytical learning strategies, and the translation is a difficult skill which is not always rewarding. Translation is a common and natural activity in real life, and it is an activity that learners formally or informally use even if teachers do not encourage it in translation activities. At an intermediate and advanced level and final stage of language teaching, translation from L1 to L2 and L2 to L1 plays an important role, since it promotes communication and understanding between strangers, it is the fifth and the most important social skill (Ross, 2000). Mattioli (2004) stated that eliminating and limiting the native language does not cause better acquisition, and does not de-

velop the humanistic approach that recognizes the language learners' identity. Some students used to translate from L2 into L1 and vice versa even they are good at understanding authentic reading materials. He concluded the importance of translation for learning purposes.

Needs analysis needs the complete articulation of outcomes before students trade the use of a curriculum. The learners' needs should be reflected by a curriculum and help curriculum designers and educators address particular situations (Khan, 2019). Language Needs analysis of students at different levels has been conducted worldwide by scholars to identify their needs. Chang, Yang, and Sun (2011) indicated that reading is the most important skill in EGP and ESP courses. Evans and Green (2007) concluded that students had problems in some academic reading skills such as understanding technical vocabulary, understanding the organization of a text, identifying key ideas and supporting ideas/examples, and note-taking. Mazdayasna and Tahririan (2008) found that the courses do not sufficiently take into account learning needs. Afshar & Movassagh (2016) stated that just reading specialized texts was emphasized in EAP syllabuses, and other skills like listening, speaking, and writing needs were not considered so important (Alavi et al., 2018). Muhammad Basri, Ampa, & Ramdayani (2020) stated that English learners need to learn major skills and minor skills. Reading is an important skill among the four language skills, listening, writing, speaking because it helps the students to increase their knowledge by reading the ESP texts in English. In addition to this, they need vocabulary in general and register in particular to recognize the definite meanings of words in context.

3. Methodology

3.1. Design and context of the study

The design of the present research was a quantitative pretest-treatment-posttest quasi-experimental research. Therefore, the dependent variable included (accounting) Learners' ESP reading comprehension achievement. The independent variables involved the translation-based and the strategy-based (information synthesization and visualization) teaching ESP texts.

3.2. Participants

Participants of this study were 90 university students majoring in accounting. They were selected based on their proficiency level from among 120 students. In addition to this, all the subjects participated in both tests (pretest and post-test). The students whose average was close to each other were selected. There were all native speakers of Persian, ranging from the ages of 17 to 25. All the students had already passed their general English courses. They were assigned into three groups, groups A, B, and C based on the probability random sampling technique.

Table 1: Demographic background of the participants

Number of the students	Gender	Native language	Major	Academic years
90	Females & Males	Persian	Accounting	2020

3.3. Instrument(s)

To estimate the homogeneity Quick Placement Test of Oxford University Press and the University of Cambridge Local Examinations Syndicate (2001) was administered. The pretest consisted of two ESP reading comprehension passages of accounting, each with ten true-false items. The post-test included two ESP reading comprehension passages of accounting, each with ten true-false tests. The reading comprehension texts were chosen from the ESP reading comprehension course book for the students of accounting. To make the test valid first and second chapters of "English for the students of accounting" by Aghvami (2019) were chosen for teaching and examining. So the tests were validated. The Kr21 formula was as high as 0.73 that was acceptable for reliability.

3.4. Data collection procedure

This study investigated the effects of translation and strategy-based reading by focusing on Zimmerman and Hutchins' (2003) information synthesization, and visualization on ESP (accounting) learners' reading comprehension. The design of the study is a pretest, treatment, and post-test. The independent variables were translation, a strategy-based (teaching information synthesization and visualization), and a combina-

tion of these methods. The dependent variables were Iranian undergraduate ESP (accounting) learners' reading comprehension achievement.

At first, a Quick Placement Test was administered to select 90 homogeneous participants from among 120 students. Then the participants were randomly divided into three groups. There were thirty students in group A, 30 students in group B, and 30 students in group C.

A pretest was administered first between all groups to assess their ESP reading comprehension ability. After the pretest, reading comprehension passages were taught through the strategy-based method by focusing on visualization and information synthesization in group A. In group B, translating processes were emphasized. Reading comprehension passages were taught through the combination of these methods in group C. For information synthesization strategy, the teacher helped the students to gain the main ideas. The teacher asked them to summarize the material, used PowerPoint software films, slides, pictures, computers, books, printed materials, and chalkboards to clarify the text to show images about the topic of the texts, and to translate, a dictionary was used. The treatment lasted ten sessions. The treatments took three months. At the end of the procedure, to assess the effect of the treatment on ESP reading comprehension level post-test was administered between three groups.

3.5. Data analysis procedure

To answer the research question Statistical Package for Social Sciences (SPSS) was used as the statistical tool for analyzing the study through a one-way analysis of variance (ANOVA).

4. Results

To investigate the homogeneity of the participants at the pretest stage, the one-way ANOVA was run on the pretest scores. The mean difference and standard deviations of tests were close to each other, and they were not varying significantly on the pretest of ESP reading comprehension. Thus the participants were homogeneous.

Table 2: Descriptive statistics of pretest of the study

groups	N	Mean	Std. Deviation
Strategic based (A)	30	27.63	4.664
Translation based (B)	30	27.37	4.895
Translation&Strategic(C)	30	27.60	4.621
Total	90	27.53	4.677

As the table shows, the mean score for the participants in group A was = 27.63 and this number was = 27.37 for the participants in group B, and = 27.60 for the participants in group C. However, the mean score of all the groups were highly close to each other, so the descriptive statistics revealed that, before applying the treatment, the three groups were homogeneous regarding their ESP reading comprehension ability, and the groups were almost at the same level of ESP reading comprehension at the beginning of the study and before they receiving the specific treatment.

The descriptive statistics of the post-test scores of ESP reading comprehension ability obtained at the end of the experiment period were revealed in table 2. All the participants took a post-test of ESP reading comprehension, the post-test aimed to evaluate the progress of the learners throughout the study as well as to find out which technique of treatment proved more beneficial in developing the participants' ESP reading comprehension skill.

Table 2: Descriptive analysis of the post-test

groups	N	Mean	Std. Deviation
Strategic based (A)	30	61.93	4.748
Translation based (B)	30	86.47	4.100
Translation&Strategic (C)	30	92.17	3.797
Total	90	80.19	13.838

For the post-test of ESP reading comprehension, the mean score for the participants in group A was = 61.93 and this number was = 86.47 for the participants in group B, and = 92.17 for the participants in group C. Analysis of the post-test results, as seen in the table, revealed that the mean score on the post-test was much higher than that of the pretest,

suggesting that the participants made significant progress as a result of the treatment effect; however, a further look shows that the mean scores varied greatly, implying that the three treatment conditions might have differentially affected the participants' ESP reading comprehension abilities. Group C obtained a much higher mean score, suggesting that translation-based and strategy-based teaching ESP reading comprehension had proved more effective on students' ESP reading comprehension ability than applying these methods separately. Applying the strategy-based alone without translation obtained a very low mean score.

The inferential analysis of the pretest scores was summarized in Table 3. The significant value for Levene's test was .597 which was higher than 0.05 alpha levels ($p > 0.05$). This suggests that the variance across the three study groups was the same, or the three groups were homogeneous, belonging to the same population at the beginning of the experiment. It revealed that the assumption of homogeneity is justified and that the difference between the mean is not statistically significant.

Table 3: Test of homogeneity of variances of pre-test

Pre-test			
Levene Statistic	df1	df2	Sig.
.518	2	87	.597

Based on Table 4, the 'Sig.' value for ANOVA is bigger than our preset alpha level ($p > 0.05$); the mean difference is not significant or the groups belong to the same population.

Table 4: ANOVA for the Pre-test Scores

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.267	2	.633	.028	.972
Within Groups	1945.133	87	22.358		
Total	1946.400	89			

The inferential analysis of the post-test scores was summarized in Table 5. Levene's test of post-test was .874 which was higher than the

preset alpha level ($p > 0.05$) level of significance, thus the assumption of homogeneity of variances was justified. Table 5, indicates the test of Homogeneity of Variances of the post-test.

Table 5: Test of homogeneity of variances for post- test

Post-test			
Levene Statistic	df1	df2	Sig.
.135	2	87	.874

According to Table 6, the small significant value for ANOVA suggests the mean difference was statistically significant. Yet, we need to ask which means are different from each other.

Table 6: ANOVA for the Post-test Scores

Post-test					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	15484.289	2	7742.144	431.912	.000
Within Groups	1559.500	87	17.925		
Total	17043.789	89			

After verifying the three groups, they differed in some ways, which were investigated through multiple comparisons. In other words, the Post-Hoc test (Scheffe) was run to compare the means of the three groups to provide answers to the research question. The multiple comparisons of the results are summarized in Table 7. It revealed that all three means are significantly different from each other. The confidence interval for each comparison set contained no zero, indicating a significant, meaningful difference between the mean scores.

Table 7: Multiple comparisons of the post-test

Multiple Comparisons						
Post-testScheffe						
(I) group	(J) group	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
translation based	strategic based	24.533*	1.093	.000	21.81	27.26
	translation and strategic	-5.700*	1.093	.000	-8.42	-2.98
strategic based	translation based	-24.533*	1.093	.000	-27.26	-21.81
	translation and strategic	-30.233*	1.093	.000	-32.96	-27.51
translation and strategic	translation based	5.700*	1.093	.000	2.98	8.42
	strategic based	30.233*	1.093	.000	27.51	32.96

***. The mean difference is significant at the 0.05 level.**

Table 8 indicates that the three groups belong to three different populations at the end of the experiment.

Table 8: The homogenous subset of post-test

Post-test				
Scheffe				
group	N	Subset for alpha = 0.05		
		1	2	3
strategic based	30	61.93		
translation based	30		86.47	
translation and strategic	30			92.17
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

5. Discussion

The purpose of this study has been to investigate the contribution of applying translation-based and strategy-based methods (information synthesis and visualization) in teaching ESP reading comprehension to Iranian undergraduate ESP (accounting) learners. To see which one plays a crucial role in teaching ESP reading comprehension. The findings provided an empirically justified answer to our research question about the comparability of the effects produced by different methods on ESP reading comprehension ability. The three strategies for teaching

ESP reading comprehension improved the comprehension ability of ESP texts to varying extents. The heterogeneity of all the three groups at the end of the experiment and the mean difference was more in favor of the group C who received treatment through focusing on the combination of strategy-based and translation method than of those who received treatment via emphasizing on each one separately in teaching ESP reading comprehension ability. Additionally, group A had the lowest mean difference, who received treatment through the strategy based process. The result rejected the null hypothesis and implied that a combination of the translation-based and strategy-based methods might prove more beneficial in aiding ESP reading comprehension.

6. Conclusion

Some studies on need analysis identified reading comprehension as the most significant ESP, and EAP needs in the Iranian context (Atai & Nazari, 2011; Afshar & Movassagh, 2016). Also, SAMT “The Iranian Center of Studying and Compiling University Books in Humanities” focuses on developing reading comprehension for EAP and ESP courses, and the emphasis is on reading skills at state schools and EAP and ESP courses in universities (Alavi et al., 2018). Reading comprehension is a process that includes understanding vocabulary thinking, visualization, and memory (Ness, 2011). Reading strategies are tools that teachers apply to help students learn to read and comprehend what they are reading. There are many reading strategies for teachers and students to understand and comprehend different texts with different levels of difficulty (Prado & Plourde, 2011).

The present study sought to find an empirically justified answer to the following questions: “Is there any statistically significant difference between the effect of ESP reading comprehension ability of participants who work with translation based, of those who use a strategy-based (information synthesization and visualization), and of those who draw on a combination of both translation-based and strategy based method as measured by tests of ESP reading comprehension?” The answer to the question is, “yes” in favor of group C. The experiment revealed that group B, that drew heavily on the translation-based outperformed

group A, who received strategy-based methods for ESP reading comprehension. Translating the texts and applying the strategies such as “information synthasization”, and “visualization” can fulfill the shortcomings in ESP reading comprehension.

In group A, the students coped with strategies without any translation. They did not be able to get a detailed understanding of ESP text. The level of their general vocabulary, technical vocabulary, and knowledge of structure was not enough for a good ESP reading comprehension. In group B, by translating based method, students received a proper understanding of the ESP text, but without utilizing any strategies, they cannot fulfill the gap in the excellent comprehension to arrive at a deeper understanding of the passages as they keep the meanings in memory without losing their train of thoughts. According to the result of the study, utilizing a strategy-based method without any translation for ESP students was not beneficial. One explanation is that because of their lack of general reading comprehension ability, students have not truly mastered reading general reading comprehension. When a student is struggling to read ESP text and attempts so hard on saying and understanding the general and specific vocabularies correctly, they cannot focus on the comprehension of the text, and little effort is put into the detailed meaning of what is being read. Also, according to Jitendra & Gajria (2011) for proper comprehension students are often need to make connections between what is being read to their background related information, and understanding is going to be a very difficult task with lack of proper related information and this is true for ESP students who read a text without enough general information and without activating prior knowledge. Translating the ESP text can activate student’s prior knowledge.

This study is in line with the research done by Avand (2009) that investigated the effect of using translation (the contribution of the mother tongue) on the reading comprehension of Iranian ESP learners. The results of the data analysis showed a significant relationship between using translation and ESP reading comprehension. So, applying translation and teaching ESP reading comprehension to learners through the medium of native language may cause better results.

By extension, the present study sought to identify and evaluate the effect of applying translation-based and strategic-based methods of teaching for the development of Iranian ESP reading comprehension ability. A few research studies conducted so far on ESP reading comprehension strategies. The finding revealed a significant effect of the contribution of the strategy-based method (Information Synthesization and visualization) and the translation based on the ESP reading comprehension than translation based and strategic based method alone. In other words, the instructional effect will be more if the strategies of information synthesization, visualization, and translation were combined and integrated.

As Alavi et al. (2018) indicated that in EAP courses, teachers did not teach different sub-skills and strategies of reading comprehension implicitly or explicitly, and the class activities were limited to translating specific texts into Persian, understanding the general idea of the text, learning the meaning of general and specific vocabulary; and answering comprehension questions at the end of the text. Also, syllabus designers do not have enough knowledge about different aspects and strategies of reading comprehension. Alavi et al. (2018) also indicated, designing and developing EAP syllabuses and textbooks by an organization (SAMT) or a ministry (Ministry of Science, Research, and Technology) is another possible reason for neglecting the needs of students and other stakeholders.

This study had some theoretical and pedagogical implications, for teachers, researchers, materials writers, course and syllabus designers, Curriculum and test developers, teacher trainers, learner, and students in the field of language teaching, and learning in ESP contexts, who can use the findings of this study to improve the condition and status of language teaching in Iran. The result of the study might help syllabus designers to revise the objectives of syllabus design. It might necessitate a change of attitudes towards what it is that makes up a syllabus. This study has pedagogical and theoretical implications for ESP teachers. In addition to this, this study has some benefits for the students' use in ESP reading comprehension.

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