

The effectiveness of textual structural factors on students' reading comprehension in English language course

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Abstract

The purpose of this study was to study and compare the effectiveness of educational text variables on the reading comprehension in English language course of Islamic Azad University students. The sample group consisted of students studying in East Tehran Branch who were selected by random sampling. The participants were randomly assigned to experimental groups after random sampling. The instruments utilized were Texts and a Questionnaire for Comprehension. The texts included nine textual educational variables with similar content. An unrelated raw text was used to construct the text, and then the educational variables were used for each project according to the goals of the project. One-way ANOVA was used for data analysis. The findings of this study did not confirm the effectiveness of text type on students' reading comprehension.

Keywords: Educational variables; reading comprehension; text; text organization; English language course; university students.

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1. Introduction

With the revival of human society in the shadow of education, familiarity with the method of education and educational technology is essential. Experience has proven that purposeful and methodical things are always more successful than things without planning and design, and in a shorter time, they achieve the desired result. According to David Ausubel, a learning theorist, the only real learning is meaningful (Agra et al., 2019). We have learned only what we have fully understood. On the other hand, learning and knowledge will be valuable and useful when it is applicable and practicable in one's life, otherwise, they will be of little value. Students learn the concepts but make little contact with the world around them, and that science materializes in a simple definition in his mind, and he is unable to expand and apply it in their lives.

In a classroom setting, when a learner tries to learn a science text, it is often problematic with the problem of limited knowledge of the subject. This results in a deficiency in "high-level knowledge" as Voss (1984) put it. In addition, since most of the major scientific and textbook material presents a set of "facts" to readers, it is much more difficult to understand the texts (including storybooks and reports, etc.) (Chambliss, Richardson, Torney-Purta, & Wilkenfeld, 2007). Looking at the problem of impossibility and the difficulty of understanding the subject, the unattractiveness of the texts for the reader is another issue with these texts. So, the reality is that interpretive texts are made up of facts that may not be self-explanatory, along with the problem of inactivity or low readership by many readers in many studies and reports makes the "understanding process" more complex.

Since the first time when Ausubel (1968 as cited in Agra et al., 2019) and Tyler (1949) introduced pre-organizers and learning objectives into the literature of teaching and learning psychology respectively and examined their effects on students' learning, these training variables are primarily used as variables in presentations and their effectiveness has been thoroughly evaluated. Considering the effectiveness of learning objectives, other research has also shown that teaching self-directed learning as a tool for teaching instruction can enhance students' academic achievement (Bryant, 2018).

Ball (2014), in his study, found that pre-organizers' perception had a significant impact on students' understanding of the text. Olson (2017), stressed the effect of organizer diffusion on learners' motivation. McCrudden, Lehman, Scra, and Paul Quinn (2007) found that facilitating the dissemination of a text organization helps learners understand perceived relationships in a text. Stoll and Mayer (2007); Saif, (2015) have also confirmed the effect of using pre-organizing skills in their research. Bahramnezhad et al., (2016) also found that using pre-organizers reduces the learning load of students.

Ferdosipour and Delavar (2011); Ferdosipour (2015) also studied the effectiveness of structural factors on reading comprehension. In addition, the effects of its factors have been described by Chambliss and Richardson (2007), Chambliss (1994), Chambliss (1995), Woolley (2010), Connell, et al., (2012). Various attempts to understand the effect of text structure on reading comprehension have always been considered (Chen et al., 2008). The overall purpose of the study is therefore to prioritize the top patterns of text variables that affect students' comprehension.

1.1. Purpose of study

The purpose of this study was to study and compare the effectiveness of educational text variables on the reading comprehension of Islamic Azad University students in English language course. In organizing the writing, apart from discussing the content and quality of the content, is the arrangement and determination of the appropriate structure. To this end, after clarifying the subject and the mentioned elements, appropriate organizational-structural elements are used to better hierarchize and nurture them.

2. Method

2.1. Research Model

Given some of the difficulties mentioned, it is inevitable to make an effort to empirically research and derive appropriate standards for textbook compilation. In addition, although this has been understood in many other prestigious universities in other countries, at present no empirical research (except a few theoretical and library research) has been undertaken to elucidate authorship criteria in Iran and with the coordinates of Iranian students and universities. The present study proposes, of course, the necessity of the learner-centered approach.

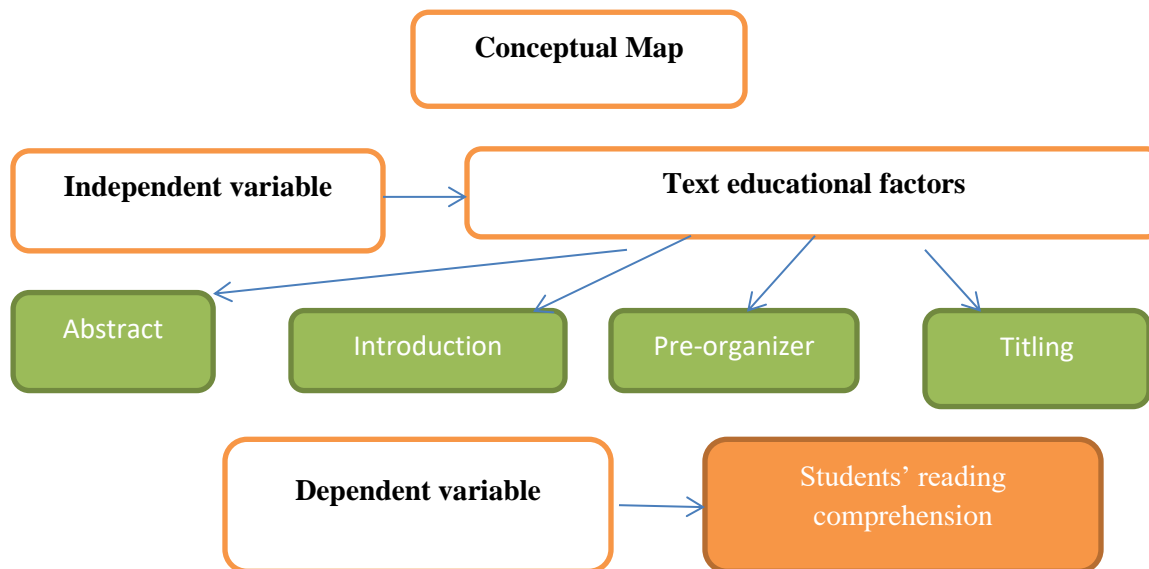


Figure 1 The Study Conceptual Map

The present study consists of a one-way factor design that examined and compared the effectiveness of educational variables on reading comprehension.

2.2. Participants

This study was conducted on a specific community of undergraduate students at Islamic Azad University East Tehran Branch. The target population in this study was all undergraduate students. From among the target population, a total of 360 people were selected using a random sampling method, using Morgan's sample size estimation table (Quoted by Christensen, 2008).

2.3. Data Collection Instruments

The present study instruments consisted of several texts with a reading comprehension questionnaire with anonymous content which were considered for the participants, which was made by the researcher. This text had a different structure for each category of subjects. Each text group had similar content but a different structure. The text reading comprehension questionnaire included 30 questions. The questionnaire was made by the researcher or a zero score for the incorrect and correct answers. The Cronbach's alpha reliability coefficient was calculated to be 0.78

2.4. Procedure

The experimental texts along with a comprehension guide were administered among the groups. Therefore, the selection of the models and their replacements in the groups was based on a random sampling method.

3. Results

As can be seen, table 1 below shows the mean comprehension score of each study group; in other words, the findings of the study showed a significant difference between them considering the 9 texts studied.

Table 1 *The Results of the Statistical Analyses Related to the Understanding of the Content of the Various Texts*

Indicators					F	Sig
Segments	Number	Mean	SD			
1	Topical list	40	18.20	2.41	2.2	.00
2	Learning objective	40	16.28	3.90		.00
3	Abstract	40	16.56	4.05		.00
4	Topical Maps	40	19.92	4.71		.00
5	Tips	40	18.40	5.13		.00
6	Net	40	16.01	3.80		.00
7	Final Questions	40	14.80	4.02		.00
8	Keywords	40	15.90	3.02		.00

Significance level at 0.05

The highest averages among these texts are:

[1] Text using concept map to clarify the main topic.

[2] The lowest mean is for a text that lacks textual training elements.

In addition, it is made clear in Table (1) that by using the F-test, the differences between these three forms of text are not significant. In other words, the F-index obtained (2.20) is lower than the critical value. The assumption rejects the significant difference between the three texts mentioned. Thus, it becomes clear that the expression patterns in this study were not able to make a significant difference between the subjects' comprehension scores. This measure was not significant at two levels of 0.01 and 0.05. The statistical findings in Table 1 confirmed that although there is a difference between the mean of the texts, this difference is not statistically significant in this study.

4. Discussion

Some researchers such as Voss and Silfies (1996) showed that this depends on the effectiveness of the text and its structure. For example, Voss and Silfies (1996) have shown that, in a well-developed text and so-called structure, the comprehension skills of the material are more important than the learner's existing knowledge. Instead, where the text is non-extensible and not well-developed, it is the learner's existing knowledge that is superior to his or her comprehension skills. In addition, Rozenblit (1989) showed that if the textual content is enhanced by the graph of extension, it enhances the reader's comprehension power. Furthermore, Chen, Violette, and Jackson (2008) have shown that the readability of text, in addition to the above factors, is strongly dependent on specific contexts.

On the importance of using titles and headings in learning complex materials, research was conducted by Johannes, Tobias, Flender, and Ursula (2009). The results of this study showed the importance and effectiveness of content-related titling on the comprehension of low-skill learners. In addition, it became clear that the greater the number of signs and symptoms in the text, the greater the learning outcomes and the more efficient the learning. It is noteworthy that this study was for college students.

The structural and content factors of the text that influence reading comprehension can be seen in Blohm and Calwell (1983). He studied the effect of cognitive style, structure, and textual gestures on reader recall. The most important approaches to theirs were structure 'complex and high level' and textual references to the re-reading of the original idea.

5. Conclusion

Learning is a concept that is used in many cases and seems to be familiar to everyone, provided that it is not bound by its definition in scientific terms. While it is not easy to provide a precise definition of learning, people with psychology and education need to have an explicit understanding of the learning process. Learning occurs when environmental conditions result in relatively "sustained changes in behavior".

Environmental conditions are sometimes the driving force. At times, we see learning being realized as a visible response to the learner. Although the theory is not easy to realize, the necessity of using learning theories or even laboratory information in the natural environment and vice versa is not negated. The ideal is to connect a two-way flow of information, the natural learning environment, and theorists. Learning theories and psychology research can help educators improve educational practices.

Learning theories teach us how to analyze the learning process and facilitate learning by pointing out what is important and what we expect. Also, learning theories teach us what principles to apply in learning and teaching and what principles are useful, and which do not work. The result is that educational methods are the product of theorists who have thought about the nature and rules of learning.

References

- Agra, G., Formiga, N. S., Oliveira, P. S. D., Costa, M. M. L., Fernandes, M. D. G. M., & Nóbrega, M. M. L. D. (2019). Analysis of the concept of Meaningful Learning in light of the Ausubel's Theory. *Revista brasileira de enfermagem*, 72, 248-255. <https://www.scielo.br/j/reben/a/GDNMjLjgzSJktWd9fdDs3t/>
- Bahramnezhad, F., Asgari, P., Ghiyasvandian, S., Shiri, M., & Bahramnezhad, F. (2016). The Learners' Satisfaction of E-learning: A Review. *American Journal of Educational Research*, 4(4), 347-52. <http://article.scieducationalresearch.com/pdf/education-4-4-8.pdf>
- Ball, B. E. (2014). *Why Ask the Question? A Study of Teacher Questioning During Discussion of Text* (Doctoral dissertation, Virginia Tech). <https://vtechworks.lib.vt.edu/handle/10919/63894>
- Blohm, P. J., & Colwell, C. G. (1983). Effects of Readers' Cognitive Style, Text Structure and Signaling on Different Recall Patterns in Social Studies Content. <https://eric.ed.gov/?id=ED237957>
- Bryant, L. E. (2018). *Understanding the Lived Experiences of Second Year Medical Students Related to the Self-directed Learning Component of Their Learning: A Phenomenological Study* (Doctoral dissertation, Northeastern University). <https://search.proquest.com/openview/0b640559157a70be0982fa7fe8318069/1?pq-origsite=gscholar&cbl=18750>
- Chambliss, M. J. (1994). Evaluating the quality of textbooks for diverse learners. *Remedial and special education*, 15(6), 348-362. <https://journals.sagepub.com/doi/abs/10.1177/074193259401500604>
- Chambliss, M. J. (1995). Text cues and strategies successful readers use to construct the gist of lengthy written arguments. *Reading Research Quarterly*, 778-807. <https://www.jstor.org/stable/748198>
- Chambliss, M., Richardson, W., Torney-Purta, J., & Wilkenfeld, B. (2007). Improving textbooks as a way to foster civic understanding and engagement. CIRCLE Working Paper 54. *Center for Information and Research on Civic Learning and Engagement (CIRCLE)*. <https://eric.ed.gov/?id=ED497604>
- Chen, D., Violette, G., & Jackson, S. (2008). Readability of auditing textbooks: an analysis using the cloze procedure. *Advances in Accounting, Finance, and Economics*, 1(1), 1-16.
- Christensen, L. B. (2008). *Experimental Methodology*. Translated by Delavar Ali. Roshd Publication (Persian).
- Connell, C., Bayliss, L., & Farmer, W. (2012). Effects of eBook readers and tablet computers on reading comprehension. *International Journal of Instructional Media*, 39(2). <http://search.ebscohost.com/login.aspx?direct=true&profile=ehost&scope=site&authtype=crawler&jrn=00921815&AN=76276379&h=PDD6sC0GsJlqcnHoNlqjcvK5onpw54E01ZutxuyAim5ixCs53PUICMRAHgLtKsc oqnymqosr5NjtIBbYbwqOng%3D%3D&crl=c>
- Ferdosipour, A. (2015). The Effectiveness of cohesion of science text by means of the paragraph on attitude. *Procedia-Social and Behavioral Sciences*, 190, 523-528. <https://www.sciencedirect.com/science/article/pii/S1877042815032796>
- Ferdosipour, A., & Delavar, A. (2011). The effects of structural variables on reading comprehension in the expository text of Persian. *Procedia-Social and Behavioral Sciences*, 30, 1027-1030. <https://www.sciencedirect.com/science/article/pii/S1877042811020258>
- Johanness, N., Tobias, R., Flender, J., Ursula, ch. (2009). Signaling in expository hypertexts compensates for deficits in reading skills. *Journal of Educational Psychology*, 99(4), 791-800. <https://psycnet.apa.org/record/2007-17712-008>
- Olson, M. H. (2017). *Introduction to Learning Theories*. Translated by Seif, Ali Akbar. Duran Publication (Persian).
- Rozenblit, S. (1989). Effects of a tree diagram on students' comprehension of main ideas in an expository text with multiple themes. *Reading Research Quarterly*, 236-247. <https://www.jstor.org/stable/747866>

- Ferdosipour, A. (2021). The effectiveness of textual structural factors on students' reading comprehension in English language course. *Global Journal of Foreign Language Teaching*, 11(4), 271-277. <https://doi.org/10.18844/gjflt.v11i4.5283>
- Saif, A. A. (2015). *Modern Psychology of breeding, Psychology of Learning and Education*. Duran Publication (Persian).
- Stoll, A. H., Mayer, P., & Knochel, P. (2007). Preparation of Di-, Tri-, and Tetra-Substituted Functionalized Ferrocenes via Magnesium Organometallics. *Organometallics*, 26(27), 6694-6697. <https://pubs.acs.org/doi/abs/10.1021/om701046c>
- Tyler, R. W. (1949). Trends in professional education. *The American Journal of Nursing*, 50-56. <https://www.jstor.org/stable/3458313>
- Voss, J. F., & Silfies, L. N. (1996). Learning from history text: The interaction of knowledge and comprehension skill with text structure. *Cognition and Instruction*, 14(1), 45-68. https://www.tandfonline.com/doi/abs/10.1207/s1532690xci1401_2
- Woolley, G. (2010). Developing reading comprehension: Combining visual and verbal cognitive processes. *Australian Journal of Language and Literacy*, 33(2), 108. <https://search.informit.org/doi/abs/10.3316/ielapa.123444416199595>