



THE IMPACT OF SUPPORT READING STRATEGIES ON UNDERGRADUATE STUDENTS' COMPREHENSION OF ONLINE TEXTS

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Abstract

Reading, as a receptive skill, plays an essential role in comprehending online texts. This study investigates the effectiveness of support reading strategies in addressing students' challenges while reading online materials. The purpose of study is to investigate the effect of support reading strategies on undergraduate students' performance in reading online texts. The sample of study contain on 60 students from local women college, Lahore. A qualitative method research design was employed, involving 60 undergraduate students from a local college. The qualitative data was collected through focus group interviews. The data was collected through convenience sampling to identify the problem of online learners in reading online books. The findings revealed that most students employed support reading strategies to make online reading easier and more engaging. The results suggest that support reading strategies enhanced students' comprehension and motivation in reading online texts. The findings indicated that most students prefer using support reading strategies while reading online texts.

Keywords: *Support Strategies, Reading Online Texts, Online Reading, Online Texts.*

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1. Introduction

Reading is an 'interactive process between a reader and the text where the reader retrieves the relevant information as to interact with the text to elicit the meaning (Alyousef, 2006). Teachers suggest reading sources to students in the language classroom, and the internet facilitates online reading, enabling students to use effective reading strategies. Coiro (2003) contends that acquiring information and synthesizing knowledge are the rudimentary purposes of reading text online. Herold (2014) placed emphasis on the act of reading online as it is connected to the internet, where the focus is on reading using online devices like computers and iPad rather than paper. With the improvement of reading practices over the last few years, digital technology has promoted reading and literacy research (Mangen, & Weel, 2016).

Reading online text is now one of the most widely used sources of information for learners (Zarrabi, 2016). Additionally, Individual attitudes to reading are also shifting with screens replacing books for reading as well as a source of enjoyment for the readers to read the text. Digital learning environments have replaced books in education, to the extent that in many countries online institutes have been established to improve the online reading process (Rennie & Morrison, 2013). In the online reading process, readers find that information online while is relatively different from the textual version. Anderson, (2003) in his study found that the readers have more opportunities to explore, and access to information is simpler while reading online texts. In these days online reading resources are increasingly used in the different educational institutes and students prefer to integrate digital devices as learning tools (Amer et al., 2010), suggesting the need to explore the effects of technology on reading online. A number of studies discussed the benefits and difficulties of reading both offline and online text (Ackerman & Gold Smith, 2011), however Foasberg (2014) points to a visible lack of research on strategies useful for online reading. Furthermore, Herold (2014) stated that online reading encouraged the students to skim relevant information rather than reading critically. Although online reading provides opportunities for students to use strategies to make reading more effective, it has reduced their reading ability (Coiro and Doblers, 2007).

Online learning provides a new environment to the students where they require new technology knowledge and support from their teachers. In Pakistan there is an ever-increasing number of educational institutions equipped with new technology to support students learn the new strategies education. Nahavandi et al. (2013) contend that reading is a language learning process where teachers integrate new technology as a tool to develop reading skills of the students.

Reading online as a communicative process has a vital role in improving the students understanding, encouraging the goal of meaning-making in the language classroom.

Online learning environments provide opportunities for students to work independently; however, learners often encounter challenges in adapting reading strategies that control and modify their efforts to read the online text and construct meaning (Mesgar et al., 2012). Online reading strategies are considered as conscious and intentional actions of learners while reading web-based materials (Behalova, 2010). The rapid development of new information and communication technology requires the students to be armed with a range of metacognitive reading strategies in order to develop effective online reading skills as well as overcome challenges while reading the text.

Research suggests that in the online reading process, several strategies are used for making reading effective (Coiro & Dobler, 2007; Leu et al., 2005). The students have to face difficulties in understanding the online text due to limited knowledge of using strategies when reading online texts (Channa et.al, 2012). Reading online requires strategies that are different than those used for traditional printed texts; to get a better understanding of the online text (Akyel & Ercetin, 2009). In the new advanced technology in order to make readers proficient in online reading skill the readers need to integrate online resources to get success in the reading skill which further requires skillful use of strategies to access, organize and integrate many sources of information. Therefore, teachers try to focus on students' use of computers and the internet; enabling the learners to tackle challenging tasks in the language classroom by using different strategies (Zaki, Hassan, and Razali, 2008). Furthermore, Nicholas (2009) argued that proficient readers tend to focus on reading the online text and deal with different strategies in the computer environment. Online reading has become a source of information and necessary part of the modern research. In the past students read printed texts only, but now online reading has become one of the widely used sources of information for learners (Zarrabi, 2016).

Tavakoli (2014) identified an overall pattern of Iranian students' knowledge about metacognitive strategies and their use of these strategies while reading and comprehending online text. The findings of the study described that student used subcategories of metacognitive reading strategies: Support reading strategy, Global reading strategy, and Problem-solving strategy. There was no difference between male and female strategy use, however, impact of reading strategy on reading comprehension in the context of metacognitive strategy was present.

In Pakistan, English courses are taught in different programs at the undergraduate level, however due to limited reading strategies, students always have to struggle to comprehend the text in English. A majority of Pakistani learners lack the reading proficiency required at the undergraduate level. As many undergraduate students have problems in comprehending text (Shaife & Nayan 2011). There is also a lack of critical thinking among the learners also attributed to a lack of reading strategies which can be seen in their examination results. Moreover, Channa et al. (2016) identified the problems

of students' during reading a text. It is suggested that different strategies should be utilized by teachers as are: skimming, scanning and reading text strategies to develop reading comprehension of the students in Pakistan. Therefore, it is indicated that the college level readers avail benefit to improve reading proficiency. In online reading contexts, teachers play a vital role in introducing effective reading strategies and helping students overcome difficulties in comprehending online texts (Akhter et al., 2024)

1.1. Subject Objectives

Identify difficulties that students encounter while reading online texts.

2. Literature Reviews

Reading is considered interactive activity between text and readers, for an online reader, reading is "social" activity. Reading online in the modern era played vital role in higher education system. The rapid spread of digital technologies in higher education leads to a fast shift of reading from printed texts to online environments. This shift has changed not only the reading tools but, more crucially, the very nature of reading. Specifically, reading became a difficult and active process of managing hyperlinked information, multimedia, and non-linear text. Online reading is lifelong skill to comprehend the online texts by using reading strategies (Habók, Oo, & Magyar, 2024). Therefore, undergraduate students tend to struggle to keep comprehension, focus, and critical engagement during the reading process. However, Abdullah and Ismail (2025) identified that support reading strategies serve as an effective learning approach for improving students' performance in online reading contexts. Furthermore, Support reading strategies involve instructional strategies and cognitive aids that guide learners both before, during, and after their reading.

Using reading strategies during reading online text undergraduate students tackle online reading in a pretty superficial way, mainly skimming instead of really diving into the material. With so much information and distractions in digital texts, it's easy for readers to feel overwhelmed, which can lead to forgetting important points and misinterpreting key ideas. Research indicates that using supportive reading strategies can help students manage their reading habits by promoting a more active engagement with the text. For instance, techniques like taking notes, highlighting important concepts, and asking questions can encourage deeper thinking and enhance understanding (Rusdiansyah, 2019).

The importance of instructors also comes up in the literature as a key element in successfully implementing these reading support strategies. Teachers who demonstrate strategic reading behaviors and offer guided practice foster environments that promote active engagement. In online or blended learning situations, the role of instructional support becomes even more crucial since students often read on their own without immediate feedback. Raja and Binti (2023) has found that incorporating support strategies into online reading tasks can significantly enhance motivation, comprehension accuracy,

and overall academic success for undergraduate students. As it is very useful strategy to manage difficulties while reading digital texts.

As higher education increasingly relies on digital platforms, students' reading habits have changed significantly. Online texts are quite different from traditional print materials in terms of structure, navigation, and presentation. They often require readers to process information in a non-linear way while juggling hyperlinks, visuals, and multimedia elements. Researchers have pointed out that these features can ramp up cognitive load and require a higher level of strategic reading skills (Coiro & Dobler, 2007). As a result, undergraduate students who don't have effective support reading strategies may find it tough to comprehend, retain, and critically evaluate online texts.

Support reading strategies are like helpful tools that guide learners in making sense of what they read. These strategies encompass a range of activities: before reading, they might activate prior knowledge; during reading, they could involve annotating the text or asking questions; and after reading, techniques like summarizing and reflecting come into play (Grabe & Stoller, 2019). Research rooted in cognitive and metacognitive theories shows that these strategies empower learners to keep track of their understanding and manage their reading processes more effectively (Flavell, 1979). When it comes to reading online, these strategies are essential for helping students navigate through complex information and stay focused on their learning objectives.

Studies on online reading comprehension reveal that students often skim through texts, distracted by the fast-paced digital environment and the pressure of time. Liu (2005) noted that online readers frequently engage in surface-level reading, which can hinder their comprehension. Support reading strategies help combat this issue by promoting active and intentional engagement. For example, using guiding questions and structured note-taking has been proven to enhance understanding and synthesis of academic texts found online (Afflerbach, Pearson, & Paris, 2008).

Pressley and Afflerbach (1995) discovered that skilled readers regularly use strategic behaviors like predicting, clarifying, and evaluating content, which leads to better comprehension. Similar results have been found in online contexts, indicating that teaching these strategies significantly boosts students' abilities to interpret and analyze digital texts (Coiro, 2011).

Even though there's been a growing focus on reading strategies, research still shows some significant gaps. A lot of studies tend to concentrate on print reading or school-level learners, leaving undergraduate students' interactions with online academic texts somewhat overlooked. Additionally, the impact of ESL and EFL contexts hasn't been thoroughly examined, especially in developing nations. Experts suggest that language skills and cultural elements might affect how students use reading support strategies in online environments (Nation, 2013). This highlights the urgent need for more research into

how effective these strategies are for undergraduate learners across various educational landscapes. Thus, reading strategies can boost undergraduate students' performance when it comes to reading online texts. By encouraging active participation, metacognitive awareness, and self-regulation, these strategies help learners tackle the cognitive challenges of digital reading.

3. Methodology

The primary purpose of the present study was to investigate the effect of supportive reading strategies on undergraduate students' performance in reading online texts. To achieve this objective, the study employed qualitative research design.

3.1. Participants

In the current study, undergraduate-level students were selected as the population. All participants were chosen through convenience sampling. The sample size was determined using Taro Yamane's (1973) formula based on the selected population, resulting in a final sample of 60 students. The students read an online novel as part of their English course.

3.2. Data Collection

In the data collection phase focused on collecting qualitative data through focus group interview sessions with selected students.

Qualitative research method such as focus group interview is most commonly used for collecting data (Cohen, Manion, & Morrison, 2017). According to Creswell (2005), qualitative research method helped researchers to understand research problems more deeply.

3.3. Focus Group Interview

The focus group interview was utilized in this study. The basic purpose of focus group interviews to collect qualitative data as to learn more about students' perceptions of reading strategies. In the study by interviewing a sample of eight students, it was needed to check that what extent undergraduate students were aware of the different types of support reading strategies. The interview was conducted based on students' preferences. The interviews were tape-recorded which were transcribed. When the interviewee indicated that the participants have no more to say, then they were followed up with some open-ended questions to check their awareness of the support reading strategies and their use.

3.4. Focus Group

Focus group is a valuable tool for collecting qualitative data and involves organizing a discussion with a selected group of individuals to relevant information about their views and experiences on a topic in producing a broad and in-depth understanding of the problem (Dilshad & Latif, 2013). The purpose of using focus group is to obtain relevant information of a qualitative nature from students as it generates rich data. The focus group

setting deals with a small number of selected participants brought together to discuss a specific topic within a group, leading to data and outcomes (Cohen et al., 2017). A focus group interview was conducted with students who were willing and available for the discussion. Information relating to student opinion about the reading strategies, was collected by semi-structured interviews of 8 students engaged in the course. Semi-structured questions (Krueger & Casey, 2000) were used to give the students the opportunity to give complete information; hence, open-ended questions were used, and students were encouraged to take part in discussion to give elaboration about the assigned topic. The students' responses were digitally recorded. The focus group interview took place after the online reading texts activities were completed. The focus group interviews were audio-recorded as lasted within 60 minutes with the eight students. The recordings were transcribed manually and entered into NVivo 10 for qualitative data analysis.

4. Data Analysis

Qualitative data obtained from the focus group discussion were analyzed using Nvivo 10 in order to identify the emerging themes. Focus group interviews were recorded and transcribed to find out emerging themes, emphasizing the participants' problems while reading the online text. Thematic analysis is a useful method to find out the problems of the students while reading online texts (Braun & Clarke, 2006). This thematic analysis follows the essentialist method, which explains the experiences and meanings of the students based on the assumption that language reflects and allows the students to articulate their meanings and experiences (Braun & Clarke, 2006). It used the inductive approach for identifying themes through a process of coding the data without trying to fit the data into a pre-existing framework, or the researcher's theoretical interest (Braun & Clarke, 2006). The themes were identified at a semantic level, meaning within the explicit meanings of the data (Braun & Clarke, 2006). A thematic map was created and refined for this study.

4.1. Focus Group Interview

The research question explored the problems that were encountered by the students in this study. The data obtained from the focus groups interviews with students were compiled and analyzed to find patterns in students' use of reading strategies. The following two areas emerged from the focused group interviews.

- Developed critical thinking
- Enhanced vocabulary
- Thought about information in both English and Urdu

4.2. Developed Critical Thinking

According to the discussion, the majority of the students found online reading interesting as it helped them develop their critical thinking and they found online reading

a novel experience. As some of the students critically analyzed and evaluated the information presented in the online text.

“Online reading has helped develop my critical thinking as I am reading more” (P-Online reading provided the exposure to students to enhance their critical thinking and vocabulary. Another student highlighted the importance of the online reading process and said that “reading was an easy and interesting process to develop my critical thinking.... It was new method of learning to read the online texts to develop our understanding” (P-These comments indicate that reading online was found to be an effective source of developing critical thinking among the students.

Some of the students commented that it is an active way to make readers confident to comprehend the text by using reading strategies. As stated that “my reading improved... I search the information through different links and was able to draw comparisons and analyze critically... It was easy to google the important information and relate to the online text... previous knowledge helped ...” (P-4). Suggesting that readers took keen interest to develop critical thinking that was helpful for improved understanding.

In the study reading strategy makes able students to solve problems and develop critical thinking skills, its aim to help readers learn better to read the text by using online dictionary. The student highlighted the importance of critical thinking and said that “these strategies developed critical thinking and also played important role to improve vocabulary words and understanding about the online texts” (P-5). Students placed emphasize on online reading text to develop critical thinking as it helps construct understanding of the online texts.

4.3. Enhanced Vocabulary

According to the discussion, majority of the students felt that reading online texts using reading strategies helped them understand the text better. Most of the students read the text aloud when they feel difficult to comprehend the text and read the text slowly and carefully to develop their understanding. Some of the students found the reading strategy was useful to make reading online more effective. Majority of the students found that it was good source of improving vocabulary and easy to find out the meaning of difficult words by using online dictionary. “It was useful way to improve my vocabulary words by using online dictionary...” (P-1).

Online reading provided the exposure to the students to improve their vocabulary. Another student highlighted the importance of online dictionary and said that “Online reading developed my understanding of the vocabulary I comprehend the text by guessing meaning of unknown words” (P-5).

These comments indicate that online reading is effective source to improve vocabulary among the students. Vocabulary knowledge played vital role in students’ overall reading comprehension process. Sometimes students have to face problem to

understand the difficult words meaning while reading the online text. At that time online dictionary is very useful tool to improve their vocabulary. According to the responses as it was found that due to the complexity of the difficult vocabulary students face problems to comprehend the text when they read the online text. Suggesting that online reading improved the vocabulary of the students. Majority of the students considered online reading time consuming due to finding the meaning of difficult vocabulary by concerting online dictionary. As several students used online dictionary to search the difficult words meaning to comprehend the online text. They rely on a dictionary for better understanding to improve the vocabulary words. Some of the students commented that they have to face problem to comprehend the online text due to limited knowledge of vocabulary words. As stated, that “Difficult to comprehend the online text due to limited knowledge of vocabulary words made me confuse to comprehend the text ...” (P-3).

To overcome these problem students used online dictionary to develop their understanding. In teaching learning process online dictionary as a good source of construct knowledge was used in the language classroom. Another student highlighted the importance of online dictionary, and said that “I learned to find out the meaning of difficult words by using the online dictionary” (P-2)

Majority of the students were interested in using an online dictionary to develop their understanding while reading the online text. Students read aloud while engaging with online texts to enhance comprehension of difficult vocabulary through contextual clues. Online dictionary was used as a handy tool which was accessible to students to make their reading more effective while reading online, that allowed the students to improve new vocabulary words that can hardly be found in printed dictionaries. These online dictionaries get updated frequently, which make able students to learn more about new vocabulary words to comprehend the text. In this study said that, “Reading online is much better way to read the online text easily because I find it difficult to read than I start to google words meaning easily without any sort of problem to improve my vocabulary.” (P- 3)

Some students preferred to comprehend vocabulary in the given context positively without getting confuse. Another important point to the online text was “Preferred to read online text because it saves my time. It develops the interest to google the difficult words meanings to comprehend the text and can google spontaneously the relevant information about the text. I learned to find out meaning of difficult words by using online dictionary- - ”. (P- 4)

Online reading provided the exposure to the students to improve their vocabulary. Support reading strategy is assisting readers to enhance vocabulary and guessing the meaning of unknown words in the given context. Students take interest in reading online

text to develop vocabulary as it facilitates them to construct the meaning of the online texts.

4.4. Thought about Information in Both English and Urdu

According to the discussion, Majority of the students emphasized that they preferred to use problem solving strategy in their learning process as it helped them to reread the text for better understanding. As some of the students found the problem-solving strategy effective in improving their reading of the online texts. They reread the online text for the purpose of increasing their understanding and fluency. The emerged theme deals with the problem-solving strategy. Most of the students think both in English and Urdu language to grasp the information the text conveys. Some of the students faced problems to comprehend the online text due to limited knowledge of grammar and vocabulary for academic purpose.

“It is difficult to understand online text due to weak knowledge of grammatical structure. It confused me to understand the online text that’s why have to think both in urdu and English language to develop my understanding”. (P-2) These comments indicated that some students need to pay full attention to grammatical structure and vocabulary for the deeper understanding of the text, so they could understand the meaning of the context more easily.

Furthermore, several students avoided to focus on grammatical structure, so it was difficult to analyze and interpret the context to develop their understanding.

As some of the student said that “I skip the complex words and sentence and guess the meaning of unknown words ...” (P - 3)

Some students felt lazy to read the difficult text then they prefer to skip the difficult text and jumped to the next part to guess the meaning of unknown words. The perception of students on online reading shows that as think both in English and urdu language make easy the participants to comprehend the online texts. Suggesting that readers took keen interest to comprehend the text by reading strategy. In reading online text support reading strategy was used effectively to overcome the problems of learners and comprehend the meaning of unknown words from the context.

“Thinking both in Urdu and English language while reading online text helped to develop a deeper understanding of what have read, and in this way. developed accuracy in reading texts”. (P-2)

Some of the students commented that while reading online, they think about information in both English and Urdu adjust their reading speed and readers pay closer attention to develop their understanding about the text. As stated that “If I find new word I continue reading the whole sentence then translate into Urdu to comprehend the difficult sentence structure. I tried to read it several times to understand its meaning.” (P -4). If the

text becomes difficult the students guess the meanings of unknown words to develop their understanding.

5. Conclusion

The study showing the students to be highly motivated when reading online texts, staying focused on the reading task and adjusting their reading speed according to the task requirements. The students focused on understanding of the difficult online text to make their reading more effective. The students took notes while reading online text to develop their understanding. The students declared that they read aloud when text is difficult to understand. They printed out hard copies in order to comprehend the text, suggesting the students were still relying on the traditional mode of reading printed material. In support reading strategies students took notes while reading online text to develop their understanding. The students declared that they read aloud when text is difficult to understand.

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