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Effect of Intervention on Reading Strategy Usage among Secondary Students in Pakistan

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ABSTRACT

The present study aimed to examine the effect of intervention in the form of instruction and training of on the usage of language reading strategies among grade 11 ESL students in Pakistan. An experimental design was used, involving 20 weekly training sessions that focused on six key reading strategies: predicting, making connections, questioning, monitoring, visualizing, and summarizing. While the effect of intervention on reading comprehension was previously reported by Batool and Siddiquah (2022), the current study highlights the effect of the same intervention on students' application of these strategies. The study included 140 participants, with 70 receiving intervention, while the remaining 70 served as the control group. To assess the extent to which participants used different language reading strategies, the researchers developed a 28-item questionnaire. The findings revealed that students who received intervention were significantly more likely to develop a habit of using language reading strategies compared to those in the control group who did not receive such intervention.

Key Words: Instruction and training, Language reading strategies, Predicting, Making Connections, Questioning, Monitoring, Visualizing, Summarizing, Secondary Student, Pakistan,.

INTRODUCTION

Foreign languages are learned for diverse purposes, ranging from personal enrichment to meeting job requirements. For example, learning the language of a strong economic country can enhance graduates' competitiveness in the job market (Point et al., 2021). The global spread of English, its dominant role in various international economic and cultural domains and the rapid growth of electronic communication have elevated it to the status of an international language or global lingua franca (Marlina & Xu, 2018). As the "Lingua Franca," English has become essential for global communication, increasing the significance of learning English as a Foreign Language (EFL) or English as a Second Language (ESL) in a globalized, interconnected world. For students, mastering English is crucial for international travel, study, and communication. To succeed, they must develop proficiency in the four key skills: reading, writing, listening, and speaking (Ahmadi et al., 2013). Reading is a fundamental component of English language learning (Ahmadi et al., 2013) and a receptive skill that plays a crucial role in the learning process (Muhid, 2020). It involves understanding written language (Rumelhart, 2004) and deriving meaning from written or printed text (Anderson et al., 1985). The primary goal of reading is to achieve effective communication with the text, enabling readers to grasp the author's intended message (Gilakjani & Sabouri, 2016). According to Floris and Divina (2015), reading enhances EFL students' English proficiency and knowledge. Students who engage more with English texts tend to acquire the language more effectively than those who do not (Floris & Divina, 2015; Hunt & Beglar, 2005). Kebudayaan (2012) emphasizes that significant progress in English language learning is unlikely without substantial exposure to reading materials. Limited exposure hinders familiarity with English and poses challenges in understanding texts. The ultimate goal of reading is comprehension (Teele, 2004), which involves understanding both the explicit and implicit meanings of the text (Ahmadi et al., 2013). Reading comprehension is critical for English language learning, but it is a complex process in which students often struggle to construct meaning from written text (Grabe & Stoller, 2002). Learners, particularly those new to English, frequently face significant difficulties in understanding texts (Salataki & Akyel, 2002).

Even students with frequent exposure to English texts may still struggle to comprehend what they read. They can decode text but face challenges in grasping its deeper meaning (Williams & Atkins, 2009). Many EFL/ESL students face significant challenges with English reading comprehension, even after years of language learning (Ahmadi et al., 2013). As a result, they may abandon their efforts, believing their struggles will not yield results or failing to recognize when comprehension breaks down (Block & Israel, 2005). These persistent difficulties have led researchers to focus on strategies to enhance comprehension. Language reading strategies, in particular, have been identified as effective tools for fostering reading comprehension (Salataki & Akyel, 2002).

The term "strategy" originates from the Greek word *Strategia*, meaning generalship or the art of war, which involves the efficient and planned management of resources. In education, strategy refers to the tactics and operations learners use to acquire, store, retrieve, and apply information. Language learning strategies, as defined by Oxford (1990), help learners approach language acquisition in a more effective, efficient, enjoyable, practical, and autonomous manner. According to Beckman (2002), developing strategies aligned with personal learning schemas can take years. Strategic learners not only cultivate their own strategies through experience but also actively seek to adopt effective methods used by others. Despite

their importance, strategy instruction is not a common practice, even in developed countries such as the United States, and is even less likely to be systematically taught elsewhere (Binkley, 2007). Effective strategy instruction, however, should not be treated as a separate subject. Instead, it must be integrated into classroom teaching and woven into the content being taught. Beckman (2002) emphasizes that the best approach to teaching learning strategies is to incorporate them seamlessly into regular classroom instruction.

Despite extensive research on learning strategies, relatively little attention has been given to language strategy instruction. Studies on language learning strategies have predominantly focused on successful learners, examining how they address challenges in their learning processes (Raoofi, 2014). Research indicates that explicit strategy instruction is an effective approach to enhancing learners' awareness of learning strategies, particularly for less successful learners. Strategy training enables learners to integrate relevant strategies into their tasks by focusing on strategy awareness, selection, practice, feedback, and reflection (Dörnyei, 2006). Learning a foreign language can be challenging, particularly in the absence of a structured approach. Therefore, effective strategies are essential for successful language learning. Teachers should cultivate learners' understanding of diverse language learning strategies, emphasizing those that yield the greatest benefits (Idris et al., 2022)

Reading instruction that incorporates reading strategies and strategic reading behaviors is designed to enhance students' academic reading abilities (Mokhtari et al., 2008; Pressley et al., 2006). Employing these techniques requires both mental and behavioral effort to generate meaning and comprehend the material (Afflerbach et al., 2008). Such strategies illustrate how readers interact with text and facilitate the comprehension process. Block and Israel (2005) identify strategies essential for reading comprehension, including predicting, making connections, questioning, visualizing, inferring, and summarizing. Similarly, Webster (2011) highlights key strategies for improving reading success, such as activating prior knowledge to make inferences and predictions, making connections, generating and answering questions, monitoring, visualizing, and clarifying understanding, summarizing and synthesizing information, and evaluating to determine importance. Similarly, Sua (2021) outlines cognitive reading comprehension strategies as predicting, asking and answering questions, visualizing, summarizing using graphic organizers, and post-reading question answering. In the context of Pakistan, Batool and Siddiquah (2022) examine the effect of six strategies— predicting, making connections, questioning, monitoring, visualizing, and summarizing—on the reading comprehension of grade 11 students. These strategies, essential for improving reading comprehension, are discussed below:

Making predictions is a pre-reading strategy where readers use prior knowledge, visual cues, and textual information to anticipate what they will encounter next and identify sections that require closer attention (Webster, 2011). Students with strong prediction skills consider learning objectives, effective approaches, and time constraints. This skill enables them to anticipate the difficulty of a task and adjust their engagement accordingly. It also aids in selecting appropriate strategies and allocating resources effectively (Desoete, 2008). Prediction not only helps readers set a purpose for their reading but also fosters active interaction, enhancing interest and comprehension (Oczkus, 2003). An essential part of prediction is comparing anticipated outcomes with actual text content. This process sharpens comprehension skills and deepens understanding (Duke & Pearson, 2005). Prediction also guides readers in identifying parts of the text that require closer scrutiny. It activates prior knowledge, encouraging readers to reflect on their expectations about the material. The reading process itself is highly interactive. Readers actively connect the content with their background knowledge, create mental images, and generate summaries of what they read, which further enhances their comprehension (Muhid, 2020).

Making connections involves drawing analogies between the text and other sources, real-world events, or the readers' personal experiences. Connections can be made through text-to-self, text-to-text, and text-to-world relationships (Teele, 2004).

Questioning involves learners, peers, or teachers posing and answering questions to deepen understanding of a topic and its meaning. This process is used before, during, and after reading to construct meaning, enhance comprehension, solve problems, and discover new information (Harvey & Goudvis, 2000). Skilled readers ask "what," "when," "where," "why," "how," and "who" questions at various stages of reading. Pre-reading questions spark curiosity and aid in making predictions. Questions during reading clarify meaning and confirm predictions, while post-reading questions help locate information, remember characters and events, and validate themes identified while reading. This strategy establishes purpose and improves comprehension (Pressley, 2000).

Monitoring is a critical strategy for EFL and ESL students (Ramesh, 2009), enabling them to assess whether they have sufficient resources and skills and are on the right track while reading (Slife & Weaver, 1992). Comprehension monitoring, also called metacognition or self-regulation, is an important reading strategy that may occur before, during, and after reading (Webster, 2011). During reading, it helps determine whether the text is understood or requires review or rereading. Skilled readers are aware of the strategies needed to achieve their goals (Muhid, 2020) and frequently pause, reflect, and decide on next steps. After reading, they evaluate whether their predictions were correct and goals achieved, rereading key parts to clarify understanding (Webster, 2011; Muhid, 2020).

Visualizing requires readers to create mental images of the text, which are stored in memory as representations of their interpretation (National Reading Panel, 2000). When reading, seeing, or hearing content, students form internal images using their imagination and all senses. Visualization makes reading more engaging and meaningful.

Summarizing is one of the most challenging strategies to teach, requiring repeated modeling and extensive practice (Duke & Pearson, 2002). It involves identifying key points and condensing them into one's own words (Adler, 2001). Summarization includes locating, organizing, and expressing the main ideas clearly.

Effective instruction of these strategies involves naming and explaining the strategy, modeling its use through think-alouds, and providing opportunities for group, partner, and independent practice (Duke & Pearson, 2005). Batool and Siddiquah (2022) found that intervention in reading strategies significantly improved the reading comprehension of grade 11 students

in Pakistan compared to traditional teaching methods. Students in the experimental group demonstrated better comprehension than those in the control group.

The present study aims to explore whether intervention in reading strategies affect students' use of these strategies. By providing instruction and training of language reading strategies such as self- predicting, making connections, questioning, monitoring, visualizing, and summarizing, the study aims to explore the usage of these strategies in future. Insights from this research can guide improvements in teaching methods and curricula that integrate reading strategies, resulting in the development of better instructional strategies and practices.

Methodology

This study employed an experimental design with two experimental groups and two control groups.

Participants

The study included 140 students from two high performing private colleges. In each college, participants were randomly assigned to two equal groups of 35 students each. This resulted in a total of 70 students in the experimental groups and 70 in the control groups.

Instructional Procedure

A training module was specifically developed for the experimental groups. Over the course of a six-month academic year, the experimental groups received training in reading strategies through 20 weekly teaching sessions, each lasting 60 minutes. These sessions were conducted during the period allocated to the compulsory English subject, utilizing worksheets and textbooks. The control groups, on the other hand, studied English using traditional methods, which included lectures and model reading.

In the first session, participants in the experimental groups were introduced to six core reading strategies through clear and straightforward explanations. The session covered what these strategies are, how to apply them, and their benefits. Over the next six sessions, students were trained in predicting, making connections, questioning, monitoring, visualizing, and summarizing. The following 13 sessions focused on the practical application of these strategies, enabling students to implement and refine them in real-time learning contexts. During instruction, the teacher demonstrated the use of these strategies with assigned reading materials, providing a model for effective application. Students then practiced the strategies using articles or textbook excerpts, working both in small groups and as a class.

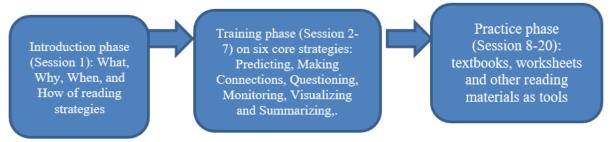


Figure 1: Phases of experiment

During lesson previews, students were encouraged to recall and connect their prior knowledge to the new reading material. Engaging in activities such as previewing and self-questioning, they learned to set reading goals and monitor their progress using textual features like headings, subheadings, italics, and graphics. Monitoring was further reinforced through activities such as summarizing texts, answering preview questions, and addressing emerging queries. Students were guided to develop monitoring habits, ensuring they regularly checked their understanding of the material. As they advanced to analyzing and summarizing information, students learned the purpose, timing, and techniques for effectively applying reading strategies. This practice enabled them to actively use their newly acquired skills. Additionally, they demonstrated deeper engagement by writing reflections on the author's purpose, the text's value, and its connections to other readings. These writings reflected critical thinking about central themes and connections within the texts, showcasing a comprehensive understanding of the text's content and significance.

Students worked in groups of three or four, taking turns modeling aloud the strategies they used to comprehend the assigned texts. While one student demonstrated a reading strategy, the others provided constructive feedback during designated pauses. Each lesson included reading assignments and materials drawn from English textbooks that are aligned with the students' grade level, age, and proficiency. Although the same reading passages and study techniques were introduced to the control group, they did not receive explanations about the underlying cognitive processes or guidance on developing a conscious awareness of their mental strategies. Unlike the experimental group, which engaged in a more learner-centered approach, the control group followed a predominantly instructor-led format, focusing on content delivery without fostering the development of reading strategy skills.

Instrumentation

Both groups completed a questionnaire consisting of 28 statements designed to explore their use of reading techniques during reading. The questionnaire, administered after the experiment, included items related to six core reading strategies and was based on a five-point Likert scale, with responses ranging from "Never" to "Always." The questionnaire was

validated by experts and pilot-tested prior to its use. The statements were revised in the light of feedback received by the experts to eliminate ambiguities and improve clarity.

ResultsThe data on students' use of reading strategies is summarized in Table 1.

Table 1 Use of language reading strategies by the experimental and control groups

	Strategies	Exper	imental	Control	
		<u>M</u>	<u>SD</u>	<u>M</u>	\underline{SD}
	Predicting				
1	I read with an objective in my mind.	3.91	1.28	2.54	1.30
4	I preview the lessons.	3.86	1.21	2.76	1.24
9	I skim the text first.	3.51	1.24	2.60	1.31
12	I think about what to read carefully and what to skim only.	3.96	1.27	2.74	1.21
20	I make use of bold or italic text to get the key information.	5.00	0.00	2.31	1.26
24	I try to guess and predict the text.	4.30	0.98	2.61	1.12
28	I try to guess the meaning of difficult words or phrases.	4.30	0.98	2.01	1.01
	Making connections				
2	I think about my prior knowledge when I read something new.	4.10	1.02	2.34	1.40
17	I try to understand the context to understand difficult things.	4.23	1.02	2.76	1.22
22	I go back and forth to link up the ideas and concepts in the text.	4.17	1.17	2.60	0.98
	Questioning				
8	I discuss with my class fellow to counter check my comprehension.	4.27	0.85	2.56	1.16
13	I use dictionary to comprehend better.	4.19	1.01	2.39	1.17
26	I ask myself questions I want to be answered in the text.	4.29	0.87	2.60	1.16
	Monitoring				
3		4.17	1.06	2.57	1.26
5	When I can't understand what I am reading, I start reading aloud.	3.67	1.22	2.49	1.22
7	I read slowly to fully comprehend whatever I read.	4.11	0.99	2.04	1.17
11	I underline or circle the important information.	4.23	1.05	2.27	1.14
14	When a lesson is difficult, I pay more attention.	4.16	1.04	2.64	1.27
16	I stop often to think if I can understand what I amreading or not.	4.17	0.99	2.33	1.06
18	I paraphrase to understand better.	3.64	1.14	2.31	1.02
21	I analyze and evaluate the lessons.	4.13	0.88	2.69	1.04
23	I check my comprehension when I come across conflicting	4.33	1.05	2.36	1.02
	information.				
25	I reread the text when I don't understand what I am reading.	4.60	0.75	2.30	1.12
27	I check if my guess or prediction about the text is	4.59	0.81	2.20	1.19
	Visualizing				
15	I make use of the pictures, tables and figures to understand the text	4.23	1.11	2.16	1.04
-	better.				
19	I try to visualize what I read.	4.19	1.09	2.47	1.11
	Summarizing	,	1.02		
5	I summarize the lessons to focus on the key points.	3.83	1.23	2.84	1.30

A t-test was conducted to compare the mean scores of students' responses regarding their use of various reading strategies. The analysis aimed to evaluate the effectiveness of reading strategy training in fostering the habit of employing these strategies.

Table 2 presents the t-test results, highlighting the differences in the use of reading strategies between participants in the experimental and control groups.

Table 2 Mean scores of control and experimental groups on the use of reading strategies

Strategies	Group	N	M	SD	Mean Difference	df	t	p
Predicting	experimental	70	28.84	2.53	11.26	130.80	22.988	.000
	control	70	17.59	3.22				
Making	experimental	70	12.50	1.86	4.80	138	14.353	.000
connections	control	70	7.70	2.09				
Questioning	experimental	70	12.74	1.93	5.20	138	15.657	.000
	control	70	7.54	2.00				
Monitoring	experimental	70	49.53	3.44	20.93	138	36.002	.000
	control	70	28.60	3.44				
Visualizing	experimental	70	8.41	1.62				

	control	70	4.63	1.19	3.79	126.89	15.742	.000
Summarizing	experimental		3.83	1.23	.99	138	4.606	.000
Overall	control experimental	70 70	2.84 115.86	1.30 5.58	46.96	138	50.101	.000
Overan	control	70	68.90	5.51	40.70	130	50.101	.000

It is evident from Table 2 that experimental group reported significantly more use of overall metacognitive strategies (M = 115.86, SD = 5.58) than those of the control group (M = 68.90, SD = 5.51, p < .001). Participants of experimental groups used other meta-cognitive strategies significantly more than the control

Table 2 indicates that the experimental group reported significantly greater use of overall reading strategies (M = 115.86, SD = 5.58) compared to the control group (M = 68.90, SD = 5.51, p < .001). The scores demonstrate a significant difference between the experimental and control groups and indicate that students in the experimental group, after receiving training, utilized reading strategies more frequently and effectively than those in the control group.

Additionally, the experimental group demonstrated significantly higher usage compared to the control group for the individual reading strategies, including Predicting (Experimental group: M=28.84, SD=2.53; Control group: M=17.59, SD=3.22, p<.001), Making Connections (Experimental group: M=12.50, SD=1.86; Control group: M=7.70, SD=2.09, p<.001), Questioning (Experimental group: M=12.74, SD=1.93; Control group: M=7.54, SD=2.00, p<.001), Monitoring (Experimental group: M=49.53, SD=3.44; Control group: M=28.60, SD=3.44, p<.001), Visualizing (Experimental group: M=8.41, SD=1.62; Control group; M=4.63, SD=1.19, p<.001), and Summarizing (Experimental group: M=3.83, SD=1.23; Control group: M=2.84, SD=1.30, p<.001).

Implications of the Study

The results demonstrate that the training intervention in reading strategies significantly improved students' use of overall and specific reading strategies, with the experimental group outperforming the control group across all measures. Enhanced use of strategies such as predicting, making connections, questioning, monitoring, visualizing, and summarizing reflects the development of both cognitive and metacognitive skills, enabling more strategic and effective reading. These findings highlight the importance of structured training in equipping learners with essential skills for deeper engagement and understanding of texts. The implications suggest integrating such training into curricula to improve academic performance and exploring its long-term impact in diverse educational contexts.

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