

**UNIVERSITI TEKNOLOGI MARA**

**EFFECTS OF METACOGNITIVE  
ONLINE READING  
COMPREHENSION STRATEGIES  
ON COMPREHENSION  
ACHIEVEMENT AMONG  
STUDENTS IN A TECHNICAL  
SKILL INSTITUTE**

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## ABSTRACT

The purpose of this study was to examine the effects of metacognitive online reading comprehension strategies on students' online comprehension achievement as they read online text which is often incorporated with hyperlinks or webpages. This is because many students could answer questions when they read text on paper, but they lack understanding when they answer online comprehension tasks. The objectives of this study were to identify the difference in Metacognitive Online Reading Comprehension Strategies (MORCS) used by students before and after treatment intervention, to examine processes that students engage in while using MORCS to read online texts, to determine whether there is any significant improvement in the students' online comprehension achievement after the intervention and to determine whether there is any relationship between MORCS and the students' English language comprehension achievement. There were 90 students involved as samples assigned into three groups the Treatment Group, Control Group One, and Control Group Two. At the onset of the study the MORCS questionnaire and pre-test were assigned to all three groups. The treatment group was assigned to intervention sessions where they were taught how to use MORCS apart from attending normal classes. The Control Group One and Control Group Two attended the normal classes. After completing the intervention sessions with the treatment group, a post-test was administered to the three groups. Data were analysed using SPSS software. As supporting data, qualitative data were obtained from think-aloud audio recordings with the 30 students from treatment group. Data were analysed focusing on themes and coding. Finding revealed higher mean scores differences in MORCS used by students for Global Strategy and Problem-Solving Strategy, followed by Predicting Strategy and Support Strategy. T-test result indicated that there was an increase in students' responses in using MORCS after the intervention. Findings also showed that teaching MORCS to the students from treatment group helped them to utilise strategies such as self-asking, monitoring, and predicting. It was found that the students repeatedly used Support Strategies such as clicking on keywords, scrolling up and down on the text, e-dictionary for words meaning, rereading, use google translation for words or phrases and picture, visual aid, or sound to understand the online text. Results showed that there was improvement in online comprehension achievement for students from treatment group compared to students from Control Group One and Control Group Two. The Pearson correlation analysis indicated that there was a weak correlation between MORCS and students' English online comprehension achievement.

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# **CHAPTER 1**

## **INTRODUCTION**

### **1.1 Introduction to Chapter One**

This chapter discusses the introduction, background of this study, problem statement, research objectives and questions of this study. Besides that, discussion also involves the scope and significance of this study. Apart from that, the definition of key terms was also discussed in this chapter.

### **1.2 Introduction**

In the era of information and communication technology (ICT), reading online comprehension has become part of the curriculum in technical skill institutions, that needs students to have additional reading strategies and skills (Guthrie & Wigfield, 2019). At present, the advent of the digital advancement has affected the ways students read, acquire, and learn information from the Internet. With the emergence of new skills such as media and information literacy, most educational sectors began focusing on online reading comprehension to equip their students with skills that involve in literacy development (Potter, 2018). In an academic environment like this, online reading becomes a more important skill because most of the information needed is obtained through digital sources. Thus, in order to utilize the technology in various learning activities, the researcher believes students need adequate internet literacy. However, when reading online, students tend to not be able to engage with online texts in a way that allows them to enhance their reading speed and comprehension. In order to be effective and efficient in the online reading, the technical skill students must have sufficient online reading strategies and practices in addition to online literacy. This was indicated in a study by Taki (2016), that students must be well versed in using online reading strategies for better comprehension online. In that case, changes seem necessary for adapting the curriculum, teachers, practices, and assessments in literacy to new standards of the 21<sup>st</sup> century (Heo & Toomey, 2020). As asserted in previous study, teaching metacognitive strategies and ICT development helps support online academic reading and improve online reading comprehension using a variety of problem-solving