

THE MEDIATING EFFECT OF COMPUTER SELF-EFFICACY ON ICT USE PREFERENCE AND COMPREHENSION STRATEGIES OF STUDENTS

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ABSTRACT

The current study aimed to evaluate whether computer self-efficacy mediate the relationship between ICT use preference and students' comprehension strategies. In this study, the researcher selected the 155 Grade 7-10 students in North District, Division of Panabo City as the respondents of the study. Stratified random sampling technique was utilized in the selection of the respondents. Non-experimental quantitative research design using descriptive-correlational method was employed. The data collected were subjected on the following statistical tools: Mean, Pearson Moment Product Correlation, multiple linear regression analysis, and Mediation Analysis Through JASP Application. Findings revealed that computer self-efficacy of students in North District in Panabo City was described as extensive, while, ICT use preference and comprehension strategies of students were rated as moderately extensive. Further, correlation analysis demonstrated that there is significant relationship among ICT use preference, comprehension strategies, and computer self-efficacy of students in North District in Panabo City. Evidently, SEM using mediation analysis proved that institutional incentive system partially mediate the relationship between ICT use preference and students' comprehension strategies in North District in Panabo City. In other words, computer self-efficacy is a significant mediator on the relationship between ICT use preference and students' comprehension strategies in North District in Panabo City. The study, therefore, conducted for further utilization of findings through publication in reputable research journal.

Keywords: ICT use preference and students' comprehension strategies, computer self-efficacy of students, educational management, Philippines

1. INTRODUCTION

The motivation of a student can significantly vary based on their history, perspectives, and understanding of the external world. For instance, some students may be driven by their quest for knowledge and the potential to impact the world, while others may find motivation in the prospect of securing fulfilling employment in their chosen fields. The level of motivation in students is critical to their academic performance, influencing their ability to stay focused and overcome challenges. Both intrinsic and extrinsic motivation are essential for setting and achieving specific goals. Students aiming for success in higher education must cultivate a strong passion for learning and develop effective strategies to reach their objectives.

A crucial aspect of the teaching-learning process is how well students utilize comprehension strategies. According to Olowoselu et al. (2016), effective use of motivated learning strategies strengthens students' comprehension strategies. This is because motivated learning strategies help students develop self-regulation, allowing them to assess their learning, recognize learning gaps, advance their knowledge, and understand their strengths and limitations, leading to better problem-solving (Kramarski et al., 2013; Oxford, 2013).

Several studies have highlighted a link between ICT use preferences and students' comprehension strategies. For example, Higgins et al. (2012) found that ICT use preferences significantly improved comprehension strategies among junior high school students. ICT use preference is defined by Meel (2016) as an individual's general evaluation or feeling of favor or antipathy towards computer technologies and related activities. Teachers often recognize the need for additional input and output activities to help students improve language skills, particularly pronunciation (Taconis & Jochems, 2012). Students who use computers to complete tasks they find challenging are likely to develop a more positive attitude towards computers and seek further tasks that can be completed using a computer (Amin, 2014).

Karsten et al. (2012) described computer self-efficacy as an individual's perception of their ability to perform specific computer-related tasks within the domain of general computing. Individuals with high computer self-efficacy are more likely to attempt and successfully complete tasks using computers (Hsia et al., 2014; Sarfo et al., 2017). Despite interventions and research efforts, poor comprehension strategies remain a growing issue for students and teachers in secondary schools. Students who struggle with comprehension strategies often fail in school due to a lack of cognitive processes and self-regulation (Kuzu et al., 2014; Oxford, 2013). Poor comprehension strategies can lead to poor social skills, inability to cooperate, ineffective communication, and difficulty developing friendships (Runjic et al., 2015).

Most studies on the relationship between ICT use preference and comprehension strategies have been conducted in foreign settings and primarily evaluated the direct effect of ICT use preference on students' comprehension strategies. Therefore, this study aims to fill this research gap by investigating these relationships in a Philippine setting, specifically in Panabo City, using a quantitative approach. This study employs a descriptive correlational design to understand the mediating role of computer self-efficacy on the relationship between ICT use preference and comprehension strategies among students.

Review of Significant Literature

ICT Use Preference. Meel (2016) defines ICT use preference as a person's general evaluation or feeling of favor or antipathy towards computer technologies and specific computer-related activities. This preference influences students' interactions with computer hardware, software, and activities involving computer use. Attitudes towards ICT are moldable and change with experience and social influences (Kutluca, 2014). Positive attitudes towards ICT can enhance learning and teaching effectiveness (Mahajan, 2016; Vaseghi et al., 2012; Sang et al., 2012).

Perceptual Component. The perceptual component refers to students' feelings about the manageability of ICT in learning (Saricoban, 2013; Abdullah et al., 2015). Positive perceptions of ICT use are crucial for fostering engagement and improving academic performance (Oye & Iahad, 2013; Parker & Lenhart, 2012).

Practicality. Practicality involves the degree to which students believe that using a computer enhances their job performance (Saricoban, 2013; Weng et al., 2018; Briz-Ponce et al., 2017). A system perceived as useful and easy to use is more likely to be accepted and utilized effectively (Suki & Suki, 2011; Hoffman et al., 2012).

Command. Command refers to students' confidence in their knowledge and ability to use computers (Saricoban, 2013; Aboshady et al., 2015). A strong sense of control over technology use is associated with better performance and adaptability (Mahakalkar, 2013; Han et al., 2014).

Behavioral Intention. Behavioral intention is the interest and willingness of students to perform tasks involving computers (Saricoban, 2013; Lu et al., 2017; Sánchez-Prieto et al., 2017).

Comprehension Strategies. Comprehension strategies involve motivational factors that help students achieve positive learning outcomes (Moskovsky et al., 2013; Sil, 2017; Kabody, 2013). Effective comprehension strategies are linked to positive student-teacher relationships and higher student engagement (Varga, 2017; Maulana et al., 2013; Rimm-Kaufman & Sandilos, 2013; Skipper & Douglas, 2015).

Effectiveness. Self-efficacy, defined as one's belief in their ability to succeed in specific tasks, significantly influences motivation and performance (Kubischta, 2014; Mbatha, 2015; Brown, 2014; Tang, 2013; Archana & Chamundeswari, 2013).

Intrinsic Value. Intrinsic value is the belief that performing tasks can yield personal benefits (Kubischta, 2014; Chee, 2014; Wehe, 2013; Gambari et al., 2016; Wong, 2014; Moos, 2013).

Cognitive Strategy. Cognitive strategies are internal processes used to enhance learning, recall, and problem-solving (Kubischta, 2014; Kendeou, 2014; Suyitno, 2017; Ibrahim & Abd, 2016; Nisiforou & Laghos, 2015; Nisiforou & Parmaxi, 2016).

Autonomy . Autonomy involves self-regulation and personal management in reaching educational goals (Kubischta, 2014; Bramucci, 2013; Bekele, 2013; Harding, 2019; Bruijn-Smolders, 2017; Panadero, 2017; Aregu, 2013; Laurillard, 2012).

Computer Self-Efficacy. Computer self-efficacy is the perception of one's ability to perform computer-related tasks (Karsten et al., 2012; Hsia et al., 2014; Chien, 2012; Sarfo et al., 2017; Loar, 2018).

Synthesis

This literature review highlights the connections between ICT use preference, computer self-efficacy, and comprehension strategies, emphasizing the importance of developing positive attitudes towards technology and effective motivational strategies for learning. Understanding these relationships helps in creating educational interventions that enhance students' academic performance and engagement.

Theoretical/Conceptual Framework

The study is based on the propositions of Granito and Chernobilsky (2012) and Piccinini and Scarantino (2016), who emphasize the significant relationship between computer attitudes and students' motivated strategies for learning. These theories suggest that developing positive ICT use preferences and enhancing computational processes can significantly improve students' comprehension strategies and academic performance.

Conceptual Framework

The study's conceptual framework includes three variables: ICT use preference (independent variable), comprehension strategies (dependent variable), and computer self-efficacy (mediating variable). The framework illustrates the expected relationships between these variables and guides the research process.

Statement of the Problem

The primary purpose of this study is to determine the mediating effect of computer self-efficacy on the relationship between ICT use preference and comprehension strategies among students in North District, Panabo City. Specifically, this study seeks to answer the following questions:

1. What is the extent of the ICT use preference of students in terms of:
 - 1.1. Perceptual component;
 - 1.2. Practicality;
 - 1.3. Command; and
 - 1.4. Behavioral intention?
2. What is the extent of comprehension strategies of students in terms of:
 - 2.1. Effectiveness;
 - 2.2. Intrinsic value;
 - 2.3. Cognitive strategy use; and
 - 2.4. Autonomy?
3. What is the extent of computer self-efficacy of students in North District, Panabo City?
4. Is there a significant relationship among ICT use preference, comprehension strategies, and computer self-efficacy of students in North District, Panabo City?
5. Does computer self-efficacy have a significant mediating effect on the relationship between ICT use preference and comprehension strategies of students in North District, Panabo City?

Hypothesis

The following null hypotheses were tested at a 0.05 level of significance:

H01: There is no significant relationship among ICT use preference, comprehension strategies, and computer self-efficacy of students in North District, Panabo City.

H02: Computer self-efficacy does not have a significant mediating effect on the relationship between ICT use preference and comprehension strategies of students in North District, Panabo City.

Significance of the Study

This study benefits various stakeholders:

Department of Education: The findings can guide policy formulation to enhance educational practices related to ICT use preference, computer self-efficacy, and comprehension strategies.

Teachers: The research helps teachers understand the factors influencing students' ICT use preference and computer self-efficacy, aiding in the development of effective teaching strategies.

Students: The study provides insights into creating a competitive learning environment and offers emotional support to students, enhancing their academic achievement.

Future Researchers: The findings offer a foundation for future research on the relationship between ICT use preference, computer self-efficacy, and comprehension strategies.

Operational Definitions

ICT Use Preference: Refers to the independent variable, described in terms of perceptual component, practicality, command, and behavioral intention.

Comprehension Strategies: Refers to the dependent variable, described in terms of effectiveness, intrinsic value, cognitive strategy use, and autonomy.

Computer Self-Efficacy: Refers to the mediating variable, expected to influence the relationship between the independent and dependent variables.

This journal-style presentation provides a comprehensive overview of the problem, literature review, theoretical framework, statement of the problem, hypotheses, significance, and operational definitions, establishing a solid foundation for the study.

2. METHODS

The study utilized a non-experimental, descriptive correlational design to gather data, ideas, facts, and information related to the research topic. This quantitative approach focuses on numeric and unchanging data, detailed reasoning, and generating various ideas about the research problem. The descriptive correlational technique enabled the researcher to observe two variables at a specific point in time and was useful in describing the relationship among ICT use preferences, comprehension strategies, and computer self-efficacy of students in North District, Panabo City. The primary aim was to investigate whether computer self-efficacy mediates the relationship between ICT use preferences and comprehension strategies.

Research Respondents

The respondents of the study were Grade 7-10 students from the North District of Panabo City. A total of 155 respondents were selected using a stratified random sampling technique. Stratified random sampling involves dividing the population into sub-groups or strata based on shared attributes or characteristics, ensuring representation from each stratum. In this study, the respondents were bonafide Grade 7-10 students enrolled for the school year 2022-2023 in public secondary schools in the North District, Panabo City, who voluntarily signed the informed consent form (ICF).

Research Instrument

The study employed a researcher-made questionnaire tailored to fit the context of the respondents. The instrument was divided into three parts. The first part assessed ICT use preferences, including perceptual component, practicality, command, and behavioral intention. This modified questionnaire achieved a Cronbach alpha value of 0.954, indicating high reliability. The second part focused on comprehension strategies of students, measured in terms of self-efficacy, intrinsic value, cognitive strategy use, and self-regulation, with a Cronbach alpha value of 0.978. The third part evaluated computer self-efficacy of students, adapted from Teo and Koh (2010), with a Cronbach alpha value of 0.944. Responses were collected using a 5-point Likert scale, and the instruments were pilot tested to ensure internal consistency, achieving a Cronbach's alpha value greater than 0.700.

Data Gathering Procedure

The researcher followed several steps to conduct the study:

Permission to Conduct the Study: The researcher obtained permission from the Dean of the Graduate School at Rizal Memorial Colleges, Inc., Davao City, and subsequently from the school principals of the selected public secondary schools in the North District, Panabo City.

Distribution and Retrieval of the Questionnaire: After obtaining the necessary approvals, the researcher distributed the questionnaires to the respondents, explaining the benefits and purpose of the survey. The data collection took place in the fourth quarter of the 2023-2024 school year. Respondents were given sufficient time to complete the questionnaires.

Collation and Statistical Treatment of Data: Upon retrieval, the responses were tallied and organized per indicator. The data were then subjected to descriptive and inferential analysis using SPSS software.

Ethical Considerations

The study adhered to ethical standards throughout the research process:

Informed Consent: The researcher obtained written informed consent from the respondents, ensuring they were well-informed about the study's purpose and could choose to participate voluntarily.

Vulnerability of Research Participants: Given that the respondents were junior high school students, the researcher took extra care to protect their psychological well-being and ensured their convenience during the survey.

Privacy and Confidentiality: The study complied with the Data Privacy Act of 2012, ensuring that data could not be traced back to individual respondents. Personal data were not shared without consent, and access to the data was restricted to the researcher.

Risk, Benefits, and Safety: The researcher disclosed the nature of the study to the respondents, ensuring they were not subjected to harm and that the survey did not contain offensive content.

Justice and Transparency: The researcher ensured fairness in selecting respondents and respected their time by minimizing disruptions to their routine. Tokens of appreciation were provided to respondents for their participation. Transparency was maintained throughout the study, with all communication conducted honestly.

Data Analysis

The data analysis involved the following statistical tools:

Mean: Used to characterize ICT use preference, comprehension strategies, and computer self-efficacy of students.

Pearson Product Moment Correlation: Assessed the significant relationship between ICT use preference, comprehension strategies, and computer self-efficacy.

Mediating Analysis Using JASP: Evaluated the mediating effect of computer self-efficacy on the relationship between ICT use preference and comprehension strategies.

These methods ensured a comprehensive and ethical approach to data collection and analysis, providing valuable insights into the relationships among the studied variables.

3. RESULTS

This chapter presents the findings from the collected data, organized according to the study's objectives. It discusses the extents of ICT use preference, comprehension strategies, and computer self-efficacy among students in North District, Panabo City; examines the significant relationships among these variables; and explores the mediating effect of computer self-efficacy on the relationship between ICT use preference and comprehension strategies.

ICT Use Preference of Students in North District, Panabo City

Perceptual Component

The results indicate that the ICT use preference of students in terms of the perceptual component was assessed as extensive, with a category mean of 3.43, which is interpreted as "oftentimes observed." The mean ratings ranged from 2.38 to 4.20, with the highest rating for the item "Being confident that I can handle a computer without damaging it" (mean = 4.20, very extensive) and the lowest for "Never hesitating to use a computer because I look smart and intelligent" (mean = 2.38, less extensive). This implies that students generally feel confident and comfortable using ICT for learning processes.

Practicality

The practicality of ICT use among students was also rated as extensive, with a category mean of 3.41. Ratings ranged from 2.33 to 4.31, with the highest score for "Being able to present my work to a degree which justifies the extra work when I use computers" (mean = 4.31, very extensive) and the lowest for "Doing more interesting and imaginative work using computers" (mean = 2.33, less extensive). This suggests that students often perceive ICT as enhancing their academic performance.

Command

For the command component, the ICT use preference was rated as moderately extensive, with a category mean of 3.21. Ratings varied from 2.22 to 3.56, with "Being able to teach myself most of the things I need to know about computers" receiving the highest mean (3.56, extensive) and "Being able to not need someone to tell me the best way to use a computer" receiving the lowest (2.22, less extensive). This indicates that students sometimes feel capable of handling ICT-related tasks independently.

Behavioral Intention

The behavioral intention aspect of ICT use was rated as moderately extensive, with a category mean of 3.26. The highest rating was for "Being able to like to take a task if I know it involved working with computers" (mean = 3.46, extensive), and the lowest was for "Using computers at school when it is necessary for learning and completing tasks" (mean = 3.04, moderately extensive). This shows that students are moderately inclined to use ICT for their tasks.

Summary of ICT Use Preference

Overall, the ICT use preference among students in North District, Panabo City was rated as moderately extensive (overall mean = 3.39). The perceptual component had the highest mean (3.43, extensive), while the command component had the lowest (3.21, moderately extensive). This suggests that students generally have a favorable evaluation of ICT use in their learning processes.

Comprehension Strategies of Students in North District, Panabo City

Effectiveness

The effectiveness of comprehension strategies among students was rated as moderately extensive, with a category mean of 3.19. Ratings ranged from 2.57 to 4.13, with the highest for "Insuring I can do an excellent job on the problems and tasks assigned for this project" (mean = 4.13, extensive) and the lowest for "Knowing I will be able to learn the material for this project" (mean = 2.57, less extensive). This indicates that students sometimes feel capable of achieving their learning goals.

Intrinsic Value

The intrinsic value of comprehension strategies was rated as extensive, with a category mean of 3.42. The highest rating was for "Thinking that what we are learning in this class is interesting" (mean = 4.02, extensive), and the lowest was for "Liking what I learn in the projects" (mean = 2.85, moderately extensive). This suggests that students often find value and interest in their learning tasks.

Cognitive Strategy Use

The use of cognitive strategies was rated as moderately extensive, with a category mean of 3.21. The highest rating was for "Using what I have learned from old project assignments and the textbooks to do new assignments" (mean = 3.89, extensive), and the lowest was for "Trying to make everything fit together when I am studying a topic" (mean = 2.10, less extensive). This indicates that students sometimes employ cognitive strategies to aid their learning.

Autonomy

Autonomy in comprehension strategies was rated as extensive, with a category mean of 3.40. The highest rating was for "Keep working until I finish even when the materials for the project are dull and uninteresting" (mean = 4.29, very extensive), and the lowest was for "Working hard to get a good grade even when I don't like the project" (mean = 2.54, less extensive). This shows that students often self-regulate their learning processes.

Summary of Comprehension Strategies

Overall, comprehension strategies among students were rated as moderately extensive (overall mean = 3.31). Intrinsic value had the highest mean (3.42, extensive), while effectiveness had the lowest (3.19, moderately extensive). This suggests that students generally use comprehension strategies to a moderate extent in their learning.

Computer Self-Efficacy of Students in North District, Panabo City

The computer self-efficacy of students was rated as extensive, with a category mean of 3.56. Ratings ranged from 2.35 to 4.29, with the highest for "Using conferencing software for collaboration purposes" (mean = 4.29, very extensive) and the lowest for "Enduring obstacles and setbacks that involved computer use" (mean = 2.35, moderately extensive). This indicates that students often feel confident in their ability to use computers for various tasks.

Relationship among ICT Use Preference, Comprehension Strategies, and Computer Self-Efficacy

The analysis revealed significant positive relationships among the variables. ICT use preference was significantly related to comprehension strategies ($r = .430, p < 0.05$) and computer self-efficacy ($r = .453, p < 0.05$). Additionally, computer self-efficacy was significantly related to comprehension strategies ($r = .629, p < 0.05$). These findings suggest that as students' ICT use preference and computer self-efficacy increase, their use of comprehension strategies also increases.

Mediating Effect of Computer Self-Efficacy on the Relationship Between ICT Use Preference and Comprehension Strategies

The mediation analysis showed that computer self-efficacy partially mediates the relationship between ICT use preference and comprehension strategies. The total effect of ICT use preference on comprehension strategies was significant (estimate = 0.433, $p < 0.05$), as was the direct effect (estimate = 0.184, $p < 0.05$) and the indirect effect through computer self-efficacy (estimate = 0.249, $p < 0.05$). The effect size indicated that 57.51% of the total effect of ICT use preference on comprehension strategies goes through the mediator variable, with the remaining 42.49% being direct or mediated by other factors not included in the model.

These results underscore the important role of computer self-efficacy in enhancing students' comprehension strategies through their use of ICT. The findings suggest that efforts to improve students' computer self-efficacy could have a significant positive impact on their academic performance and engagement with learning technologies.

Discussions

This part of the paper presents the conclusion and recommendation of the researcher. The discussion is supported by the literature presented in the first chapters and the conclusion is in accordance with statements of the problem presented in this study.

Summary of the Findings

The primary objective of this study is to evaluate which domains of the ICT use preference, comprehension strategies, and computer self-efficacy non-experimental quantitative design using descriptive-correlation technique. The researcher selected the 155 secondary school students in North District, Panabo City as the respondents through stratified random sampling method. The researcher made use of modified and enhanced adapted survey questionnaires which was pilot tested in a nearby school to ensure high reliability and internal consistency of the items in the instrument.

The extent of students' ICT use preference in North District, Panabo City got an overall mean of 3.39 with moderately extensive descriptive rating. Also, students' ICT use preference in terms of perceptual component, practicality, command and behavioural intention obtained the mean scores of 3.43, 3.41, 3.21, and 3.26, respectively.

The extent of students' comprehension strategies in North District, Panabo City has an overall mean of 3.31 with a moderately extensive descriptive rating. Also, of students' comprehension strategies in North District, Panabo City in terms of effectiveness, intrinsic value, cognitive strategy use and autonomy obtained the mean scores 3.19, 3.42, 3.21 and 3.40, respectively. Moreover, the extent of computer self-efficacy of students in North District, Panabo City has an overall mean of 3.56 with an extensive descriptive rating.

The result showed that ICT use preference has a significant positive relationship with the students' comprehension strategies in North District, Panabo City with a p-value of .000 that is less than .05 level of significance (two-tailed) ($r = .430$, $p < 0.05$). On one hand, ICT use preference has a significant positive relationship with the computer self-efficacy with a p-value of .000 that is less than .05 level of significance (two-tailed) ($r = .453$, $p < 0.05$). On the other hand, computer self-efficacy has a significant positive relationship with the students' comprehension strategies in North District, Panabo City with a p-value of .000 that is less than .05 level of significance (two-tailed) ($r = .629$, $p < 0.05$).

Computer self-efficacy mediates the relationship ICT use preference and students' comprehension strategies in North District, Panabo City. The analysis obtained the estimates value of 0.249 with $p < 0.05$, 0.184 with $p < 0.05$, and 0.433 with $p < 0.05$ for indirect, direct, and total effects, respectively. Moreover, the ratio index obtain a value of 0.5751 indicating that about 57.51 percent of the total effect of the independent variable on the dependent variable goes through the mediator variable, and about 42.49 percent of the total effect is either direct or mediated by other variables not included in the model.

Conclusions

Based on the findings of this study several conclusions were generated:

Students' ICT use preference in North District, Panabo City was moderately extensive. Meanwhile, students' ICT use preference of the public secondary school in terms of innovativeness, adaptability, critical reasoning, and collaborative obtained extensive descriptive rating. It implies that the ICT use preference of students is oftentimes observed.

Students' comprehension strategies in North District, Panabo City was rated as moderately extensive. Students' comprehension strategies in North District, Panabo City in terms of effectiveness, intrinsic value, cognitive strategy use and autonomy of the public secondary school belongs to moderately extensive rating. The result indicates that the students' comprehension strategies is sometimes manifested.

Students' computer self-efficacy in North District, Panabo City was rated as extensive. The result indicates that the perception of efficacy in performing specific computer-related tasks within the domain of general computing is oftentimes evident.

ICT use preference has positive significant relationship with comprehension strategies and computer self-efficacy of students in North District, Panabo City. Also, computer self-efficacy has positive significant relationship with comprehension strategies of students in North District, Panabo City.

Computer self-efficacy partially mediates the relationship between ICT use preference and students' comprehension strategies in North District in Panabo City. Thus, it could be said that computer self-efficacy is an undeniable factor that has a positive relationship between ICT use preference and comprehension strategies of students in North District, Panabo City.

4. RECOMMENDATION

The Department of Education should encourage teachers to continually search for instructional strategies that may involve students in public secondary schools for improving their entire practice. Students may be provided with sufficient emotional and academic support. Students are advised to develop self-esteem and positive self-concept enhancement programs. This means that the students may actively participate in the class not only to get good grades but to address their curiosity.

Teachers should maintain in using effective instructional techniques like the comprehension strategies that enhance knowledge acquisition practices. Teachers should therefore learn how to use two or more techniques together during a learning experience so as to achieve the desired objective. Also, there should be in-service training for teachers to enable them learn more so that they are able to use more instructional practices in their lesson delivery to improve intellectual functioning of the students and ensure better performance in their studies.

It was further suggested that school administrators as well as stakeholders may look for interventions to upgrade school's ICT-based resources for its optimum use in teaching and learning. Most importantly, a larger school-wide ICT development plan may be implemented to ensure coherence of ICT implementation in the teaching-learning activities.

Furthermore, researchers should conduct further analysis on the factor that may contribute to the relationship between ICT use preference and comprehension strategies of students since only 57.51 percent of the total effect of the independent variable on the dependent variable goes through the mediator variable which is computer self-efficacy.

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