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| RESEARCH ARTICLE

Factors Affecting Computer System Maintenance Skills Improvement of Information Technology Students

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| ABSTRACT

The purpose of this study was to identify the variables that may influence how well students at particular Chinese computer schools are able to maintain their computer systems. It also looked into the types of technology-related leadership behaviors program administrators demonstrated how those behaviors affected and possibly even predicted the various ways that technology was used in schools. Based on the findings, it was determined that the factors that can affect the improvement of information technology students' skills in computer system maintenance were not significantly influenced by time management, test preparation, or reading in terms of sex, monthly family income, or academic performance.

1. Introduction

The rapid progress of information technology (IT) has ushered in an era where computers and computer systems are ubiquitous tools that facilitate almost every aspect of modern life. Information technology students play a vital role in shaping and protecting the digital world in the current technological era. Hence, their proficiency in computer system maintenance is indispensable. Having a high level of expertise in diagnosing, troubleshooting, and maintaining computer systems is not only a fundamental skill for students studying IT but also a vital determinant of their success in the rapidly evolving and highly competitive IT industry.

The importance of computer system maintenance skills cannot be overstated. According to Smith et al. (2019), the successful maintenance of computer systems necessitates a wide range of abilities, including identifying hardware problems, resolving software issues, setting up networks, and implementing security measures. These skills are essential for ensuring the reliable and efficient operation of computer systems in both personal and professional environments. The education sector plays a vital role in developing and improving students' computer system maintenance skills in the field of information technology. Johnson and Brown (2021) highlight the importance of educational institutions in providing students with experiential learning and practical training opportunities. However, numerous variables can influence the efficacy of these educational initiatives.

This study aims to examine the different factors that influence the improvement of computer system maintenance skills among information technology students. Several studies have investigated various aspects of this domain. Chen et al. (2020) examined the impact of curriculum design and instructional methodologies on skill acquisition, while Lee and Kim (2019) investigated how self-directed learning and motivation can enhance these skills.

The study by Wang and Zhang (2022) on the limitations of the educational environment is very pertinent because it clarifies the particular difficulties that institutions and students might face. While these studies provide valuable insights, there is still a need

for a comprehensive investigation that integrates existing knowledge and analyzes the interaction of various factors that influence the improvement of computer system maintenance skills among information technology students. Our objective is to address this research gap by conducting a thorough analysis of these factors and their impact within the specific context of our study population.

This undertaking investigates the intricate domain of improving computer system maintenance abilities among students studying information technology. The objective of this study is to make a valuable contribution to the ongoing discourse on improving the proficiency of information technology students in computer system maintenance. By understanding the complex interconnections that influence skill development, we can offer valuable insights to educational institutions, policymakers, and educators on effective strategies to enhance the computer system maintenance skills of information technology students.

2. Review of Related Studies

2.1 Computer System Maintenance

A complex interplay of factors influences the improvement of computer system maintenance skills among information technology (IT) students. The literature review reveals that curriculum design and instructional methodologies play a crucial role in augmenting computer system maintenance skills. Chen et al. (2020) highlight the importance of a meticulously organized curriculum that incorporates hands-on experiences and practical training opportunities. This approach enhances the acquisition of skills by offering students opportunities to engage in real-world problem-solving situations and gain experience with a diverse range of hardware and software environments.

Another important factor that has been explained is the influence of self-directed learning and motivation on enhancing computer system maintenance skills. In their study, Lee and Kim (2019) discovered a positive correlation between self-motivated learning behaviors and the development of skills in students. The capacity to set goals, actively acquire resources, and persevere in the face of challenges enhances a proactive approach to skill improvement. Emphasizing the significance of cultivating a culture that promotes independent learning within IT education programs.

However, as Wang and Zhang (2022) emphasize, resource constraints present a clear challenge that may impede students' ability to develop their skills. Restricted availability of current technology, insufficient teaching resources, and inadequate infrastructure can impede practical learning opportunities. To ensure equal opportunities for all IT students to develop and improve their computer system maintenance skills, it is crucial to address these limitations in resources.

Moreover, it is crucial to acknowledge that the context and institutional environment in which IT education occurs have a substantial influence. The study recognizes the impact of these factors, and existing research indicates that institutional policies, support systems, and the presence of knowledgeable faculty members can significantly shape the learning environment. According to Smith et al. (2019), working together with industry professionals through collaborative initiatives and partnerships can help connect academic knowledge with practical application, enhancing the educational experience.

Given these discoveries, the research emphasizes the necessity of implementing a comprehensive strategy to enhance the proficiency of IT students in computer system maintenance. The prioritization of practical, experiential learning should be central to curriculum design, while educators should cultivate an environment that encourages self-directed learning and motivation. In addition, institutions must acknowledge and overcome limitations in resources and create a nurturing atmosphere to foster the growth of skills. The synergy between academia and industry can effectively bridge the disparity between theoretical knowledge and practical application, guaranteeing that IT students acquire the necessary expertise to thrive in the field.

The factors that contribute to the enhancement of computer system maintenance skills among information technology students are diverse and interconnected. This discussion emphasizes the necessity of adopting a holistic and cohesive approach that includes curriculum development, teaching methods, independent learning, allocation of resources, and institutional backing. As the IT industry continues to change, it is becoming more and more important to address these factors in order to develop IT professionals who are knowledgeable in theory and skilled in practical problem-solving and computer system maintenance.

2.2 Computer Maintenance System Skills

Proficiency in computer system maintenance is a fundamental aspect of the education and training of IT students. In today's digital world, the ability to diagnose, troubleshoot, and maintain computer systems is not only a requirement but also a distinguishing characteristic of a skilled IT professional. According to Smith et al. (2019), these skills cover a broad range of abilities, including diagnosing hardware issues, configuring software, and managing networks. Hence, the acquisition of computer system maintenance expertise is crucial to guaranteeing the dependability, safety, and effectiveness of IT systems.

An important factor examined in the literature review is the influence of curriculum design and hands-on experience on the development of computer system maintenance skills. Chen et al. (2020) highlight the importance of a meticulously organized curriculum that incorporates practical, experiential learning. The inclusion of practical training opportunities, such as lab exercises, simulated scenarios, or real-world projects, has been shown to greatly improve the acquisition of skills. An educational curriculum that combines theoretical knowledge with practical application provides students with the necessary skills and abilities required in the professional environment.

The literature emphasizes the significance of self-directed learning and intrinsic motivation as powerful factors in enhancing computer system maintenance skills. In their study, Lee and Kim (2019) elucidated the correlation between self-motivated learners and their exceptional performance in skill development. Self-directed learners demonstrate the capacity to establish objectives, actively search for resources, and persevere in the presence of obstacles, thereby cultivating a proactive attitude towards enhancing their skills. Intrinsic motivation, which results from a genuine interest in the subject matter, drives sustained learning and skill improvement.

According to Wang and Zhang (2022), the lack of resources is a significant barrier that can impede students' progress in learning new skills. Restricted availability of current technology, insufficient teaching materials, and inadequate infrastructure can impede the development of computer system maintenance skills. It is crucial to address these limitations in order to guarantee fair opportunities for all IT students to obtain and enhance their skills.

When considering computer system maintenance skills, it is important to take into account contextual and institutional factors. The institutional environment, faculty expertise, and support systems all have an impact on the learning experiences. According to Smith et al. (2019), working together with industry experts establishes a connection between theoretical understanding and practical application, enhancing the educational process.

Ultimately, adopting a comprehensive strategy to enhance computer system maintenance abilities among information technology students is of utmost importance. The amalgamation of correlated research highlights the necessity for all-encompassing approaches that include curriculum development, teaching methods, independent learning, resource distribution, and institutional backing. As the IT field continues to change, it is important for IT students to develop and improve their skills. This will ensure that they have both theoretical knowledge and practical expertise, which is necessary to succeed in a fast-paced and ever-changing technological environment.

Hence, this study seeks to enhance the ongoing discussion on computer system maintenance skills by investigating how these factors are evident in our specific study population. To enhance the computer system maintenance skills of information technology students, we can provide valuable insights to educational institutions, policymakers, and educators by comprehending the intricate interplay of these factors.

2.3 Enhancing Computer Service System Skills of Information Technology Students
Proficiency in computer system maintenance is essential to the education and training of IT students. These skills include a broad spectrum of abilities, ranging from diagnosing hardware issues to configuring software and managing networks. According to Smith et al. (2019), these skills are vital for guaranteeing the dependability, safety, and effectiveness of computer systems, making them indispensable for IT professionals.

The literature review emphasizes that both curriculum design and practical exposure play a crucial role in enhancing computer system maintenance skills. Chen et al. (2020) emphasize the significance of a meticulously organized curriculum that incorporates practical, experiential learning. Practical training opportunities, such as engaging in laboratory exercises and real-world projects, have proven to be highly effective in improving the acquisition of skills. An educational program that integrates theoretical knowledge with practical application provides students with the necessary skills and abilities required in the IT sector.

Lee and Kim (2019) assert that self-directed learning and intrinsic motivation are pivotal factors in enhancing one's skills. Students who demonstrate intrinsic motivation in their learning behaviors are more likely to excel in acquiring computer system maintenance skills. These autonomous learners possess the ability to establish objectives, actively search for resources, and demonstrate perseverance in their endeavors to enhance their skills. Enduring learning and skill improvement are maintained by intrinsic motivation, which is fueled by a sincere fascination with the topic at hand.

The limitations of available resources, as emphasized by Wang and Zhang (2022), can present substantial obstacles to the development of students' skills. The restricted availability of current technology, insufficient teaching resources, and inadequate

infrastructure can impede the acquisition of skills. To ensure that all IT students have equal opportunities to acquire and improve their computer system maintenance skills, it is crucial to address these limitations.

The institutional and cultural context are significant factors in enhancing skills. The caliber of faculty expertise, support systems provided by the institution, and collaborations with industry professionals all contribute to the overall learning experience. According to Smith et al. (2019), collaborating with industry experts helps to connect theoretical knowledge with practical application, enhancing the educational experience.

3. Theoretical Framework

This study was grounded in Abraham Maslow's (1943) Theory of the Hierarchy of Needs. This pertains to the theories of human developmental psychology, wherein certain theories aim to delineate the various stages of human growth. The theory encompasses the concepts of self-actualization, esteem, love and belonging, safety, and physiological needs. Subsequently, Maslow expanded the concept to incorporate his observations of humans' inherent curiosity. His theories align with numerous other theories in the field of developmental psychology, some of which center on delineating the various stages of human growth. Subsequently, he opted to devise a classification system that would be founded on the fundamental requirements of society and subsequently encompass more learned emotions.

Self-actualization is relevant to the study as it involves the manifestation of one's creativity, the search for spiritual enlightenment, and the pursuit of knowledge. In the context of improving one's skills in computer system maintenance, enhancing proficiency in this area can lead to increased creativity in tasks related to computer system maintenance. Therefore, self-actualization holds significance in this regard. According to Maslow, this level is characterized by the aspiration to achieve one's full potential and to become the best version of oneself. The theory also encompasses the importance of esteem, which represents the inherent human need for acceptance, respect, and value from others. In other words, possessing self-esteem enables one to effectively enhance their computer maintenance system skills through attributes such as strength, competence, mastery, self-confidence, independence, and freedom. The third need is the need for love and social belonging, which are crucial for enhancing students' computer system maintenance skills. When individuals feel loved and accepted in society, they are able to improve their skills not only for personal growth but also for the benefit of others. Ensuring safety is crucial to enhancing students' computer system maintenance skills as they engage in school tasks required for improvement. Safety needs are an integral part of the hierarchy of needs. Finally, physiological needs refer to the essential physical requirements for developing or enhancing computer system maintenance skills. In the absence of meeting these requirements, the human body will be unable to function optimally and will eventually experience failure. The physiological needs are widely regarded as the most crucial.

4. Statement of the Problem

This study aimed to determine the factors that can affect the improvement of students' skills in computer system maintenance at selected computer schools in China. It also investigated the kind of technology related leadership behavior exhibited by program administrators, how their leadership behavior was affected, and whether it predicted the multiple ways that technology was used throughout a school.

Specifically, this study seeks answers to the following questions:

1. What is the profile of the respondents in terms of the following:
    1.1 Sex;
    1.2 Monthly Family Income, and
    1.3 Current Academic Performance?
2. What are the factors that can affect the improvement of skills of the students according to:
    2.1 Time Management;

    2.2 Test Preparation; and

    2.3 Reading?

3. Is there a significant difference in the assessment of the two groups of respondents to the factors that can affect the improvement of skills in computer system maintenance when grouped according to profile?

5. Results and Discussions

Regarding the sex distribution, 19 individuals, or 63.33% of the total respondents, identify as male, while 11 individuals, or 36.67%, identify as female.

Regarding monthly family income, 15 or 50.00% of the respondents come from families earning less than $10,000. 8 or 26.67% of the respondents come from families earning between $11,000 and $15,000. 6 or 20.00% of the respondents come from families earning between 16,000 and 20,000. Lastly, 1 or 3.33% of the respondents come from families earning $21,000 or more.

Regarding academic performance, 16 respondents, or 53.33%, achieved a grade between 81 and 85. 10 respondents, or 33.33%, obtained a grade between 86 and 90. 2 respondents, or 6.67%, received a grade between 76 and 80. 1 respondent, or 3.33%, attained a grade between 91 and 95. Similarly, 1 respondent, or 3.33%, received a grade of 75 or below. No respondents received a grade between 96 and 100.

Table 3 Computed Weighted Mean on Factors that can Affect Skills Improvement Among the Two Groups of Respondents with Respect to Time Management

Group A

Time Management	WM	Verbal Interpretation	RANK
1. Do you spend a lot of time doing your activities/homework?	4.00	Sometimes	3
2. Do your teachers give you exact time to do your activities, or do you do it on time to finish it?	4.00	Sometimes	3
3. Do you spend a lot of time doing insignificant things, such as surfing the internet, online gaming, etc, instead of doing school activities?	4.27	Yes	1
4. As a student, can you manage your time despite experiencing problems inside or outside the school?	4.20	Yes	2
5. Does using gadgets distract you from doing your school activities on time?	3.67	Sometimes	4
OVERALL WM	**4.03**	**Yes**	

Group B

Time Management	WM	Verbal Interpretation	RANK
1. Do you spend a lot of time doing your activities/homework?	4.13	Yes	1
2. Do your teachers give you exact time to do your activities, or do you do it on time to finish it?	3.53	Sometimes	3
3. Do you spend a lot of time doing insignificant things, such as surfing the internet, online gaming, etc, instead of doing school activities?	4.0	Sometimes	2
4. As a student, can you manage your time despite experiencing problems inside or outside the school?	4.0	Sometimes	2
5. Does using gadgets distract you from doing your school activities on time?	3.07	Sometimes	4
OVERALL WM	**3.75**	**Sometimes**	

According to the data in Table 3, both item numbers 1 and 2 of Group B received a rank of three, with a weighted mean of 4. This indicates that their verbal interpretation is "Sometimes." Conversely, Group A item 1 had a weighted mean of 4.13, ranking first with an interpretation of "yes." Item 2 has a weighted mean of 3.53 and is ranked 3, indicating that students sometimes spend a significant amount of time on activities or homework and are precise about the time they allocate for these tasks. Item number 3 in Group B obtained the highest rank, with a weighted mean of 4.27. The verbal interpretation for this item is "yes," indicating that students in Group B spend a significant amount of time on insignificant tasks. In Group A, item 3 also received a rank of 2, with a weighted mean of 4, similar to item 4 in Group A. The verbal interpretation for both items in Group A is "Sometimes." In Group B, item 4 received a rank of 2, with a weighted mean of 4.2 and a verbal interpretation of "yes," suggesting that despite the problem, students in Group B still engage in insignificant activities and struggle with time management. In Group B, item 5 has a rank of 4 and a weighted mean of 3.67. In contrast, in Group A, the weighted mean is 3.07. Both groups have the same verbal interpretation, which is "Sometimes." This means that using gadgets can sometimes distract students from their school activities.

The results suggest that both Group A and Group B respondents who prioritize time management and refrain from engaging in unproductive activities such as internet surfing and online gaming are more likely to achieve their desired goals.

Table 4 presents factors that can affect skills improvement among the two groups of respondents with respect to test preparation.

Table 4 Computed Weighted Mean on Factors that can Affect Skills Improvement Among the Two Groups of Respondents with Respect to Test Preparation

Group A

Test Preparation	WM	Verbal Interpretation	RANK
1. Are you reviewing your notes/lectures before taking an exam?	4.27	Yes	1
2. Does reviewing help you to get a higher score?	4.07	Yes	2
3. Does reviewing make you bored, which causes you to get a lower score?	2.93	Maybe	5
4. Do you spend your free time in reviewing than doing something?	3.40	Sometimes	4
5. Do gadgets affect you not reviewing the previous topic that has been discussed?	3.80	Sometimes	3
OVERALL WM	**3.69**	**Sometimes**	

Group B

Test Preparation	WM	Verbal Interpretation	RANK
Are you reviewing your notes/lectures before taking an exam?	3.87	Sometimes	3
2. Does reviewing help you to get a higher score?	4.27	Yes	1
3. Does reviewing make you bored, which causes you to get a lower score?	3.2	Sometimes	5
4. Do you spend your free time in reviewing than doing something?	3.47	Sometimes	4
5. Do gadgets affect you not reviewing the previous topic that has been discussed?	4.00	Sometimes	2
OVERALL WM	**3.76**	**Sometimes**	

According to the data in Table 4, Group A item 1 has a rank of 1 and a weighted mean of 4.27, indicating a positive response. On the other hand, in Group B, item 1 has a rank of 3 and a weighted mean of 3.87, suggesting a more mixed response. This is consistent with the fact that students in Group B sometimes review their notes or lectures before exams. Item 2, which involves reviewing, assists in achieving a higher score. Group A has a weighted mean of 4.07 and a rank of 2, indicating a positive response. On the other hand, Group B has a weighted mean of 4.27 and a rank of 1, also indicating a positive response. In Group A, the third item is ranked fifth and involves reviewing, which leads to boredom and lower scores. It has a weighted mean of 2.93 and a verbal interpretation of "maybe." Similarly, in Group B, the third item is also ranked fifth and involves reviewing, leading to boredom and lower scores. It has a weighted mean of 3.2 and a verbal interpretation of "sometimes." The fourth item in Group A is ranked fourth and involves spending free time reviewing rather than doing something else. It has a weighted mean of 3.4 and a verbal interpretation of "sometimes." In Group B, the fourth item is also ranked fourth and involves spending free time reviewing rather than doing something else. It has a weighted mean of 3.47 and a verbal interpretation of "sometimes." In Group A, the fifth question in the ranking of questions is ranked third. This question pertains to how gadgets affect your ability to review previously discussed topics. It received a weighted mean of 3.8 and a verbal interpretation of "sometimes." In contrast, in Group B, the fifth question is ranked second. This question also relates to how gadgets affect your ability to review previously discussed topics. It received a weighted mean of 4 and a verbal interpretation of "sometimes."

The results suggest that both the respondents in Group A and Group B found that engaging in test preparation and reviewing lecture notes prior to the exam can lead to achieving a higher score.

Table 5 Computed Weighted Mean on Factors that can Affect Skills Improvement Among the Two Groups of Respondents with Respect to Reading

Group A

Reading	WM	Verbal Interpretation	RANK
1. Does reading help you to improve your skills?	4.67	Yes	1
2. Does listening while reading help you to gain knowledge?	4.07	Yes	3
3. Does reading and using other books as your references help you to understand more easily the lesson?	4.40	Yes	4
4. Is reading important to us?	4.33	Yes	2
5. Do you want to write or list down the words you have read rather than reading only and remembering?	3.73	Sometimes	5
OVERALL WM	**4.17**	**Yes**	

Group B

Reading	WM	Verbal Interpretation	RANK
1. Does reading help you to improve your skills?	4.80	Yes	2
2. Does listening while reading help you to gain knowledge?	4.33	Yes	1
3. Does reading and using other books as your references help you to understand more easily the lesson?	4.00	Sometimes	4
4. Is reading important to us?	4.60	Yes	3

5. Do you want to write or list down the words you have read rather than reading only and remembering?	4.00	Sometimes	4
OVERALL WM	**4.35**	**Yes**	

According to the data in Table 5, Group A item 1 has a rank of 1 and a weighted mean of 4.67, indicating a positive response. Similarly, in Group B, item 1 has a rank of 2 and a weighted mean of 4.8, also indicating a positive response. This suggests that reading helps students improve their skills. Item 2, which involves simultaneous listening and reading, contributes to knowledge acquisition in Group A. It has a weighted mean of 4.07 and a rank of 3, indicating a positive outcome. Similarly, in Group B, the weighted mean is 4.33, and the rank is 1, also indicating a positive outcome. In Group A, item 3 ranks 4th with a weighted mean of 4.4 and a verbal interpretation of "yes." This item involves reading and using other books as references to help students understand the lesson more easily. In Group B, item 3 also ranks 4th with a weighted mean of 4 and a verbal interpretation of "Sometimes." In Group A, the item that emphasizes the importance of reading to students ranks 2nd with a weighted mean of 4.33 and a verbal interpretation of "yes." In Group B, item 4 ranks 3rd with a weighted mean of 4.6 and a verbal interpretation of "yes." The last question, which asks whether students prefer to write or list down the words they have read instead of just reading and remembering, has different rankings and weighted means in Group A and Group B. In Group A, item 5 ranks 5th with a weighted mean of 3.73 and a verbal interpretation of "Sometimes." In Group B, item 5 ranks 4th with a weighted mean of 4 and a verbal interpretation of "Sometimes." The findings suggest that both Group A and Group B respondents benefit from reading and utilizing additional reference books, as it enhances their comprehension of the lessons and enhances their skills.

Table 6 Composite Table on the Factors that can Affect Skills Improvement Among the Two Groups of Respondents

Group A

VARIABLES	WM	Verbal Interpretation	RANK
Time Management	3.75	Sometimes	1
Test Preparation	3.69	Sometimes	3
Reading	3.72	Sometimes	2
OVERALL WM	**3.72**	**Sometimes**	

Group B

VARIABLES	WM	Verbal Interpretation	RANK
Time Management	4.03	Yes	2
Test Preparation	3.76	Sometimes	3
Reading	4.35	Yes	1
OVERALL WM	**4.05**	**Yes**	

As shown in Table 6, Time Management in Group A comes first with a 3.75 weighted mean and verbal interpretation of Sometimes, in Group B, Reading comes first with a 4.35 weighted mean and verbal interpretation of Yes; second is Reading in Group A with 3.72 weighted mean, Time Management with 4.03 weighted mean in Group B, and Test Preparation in third in both Group A and Group B, but has unlike weighted means – 3.69 in A and 3.76 in Group B. The result indicates that time management and reading can affect their improvement of skills in computer system maintenance.

Table 7 Computed T-Values of Significant Differences on the Factors That Can Affect Skills Improvement Among the Two Groups of Respondents with Respect to Time Management

Respondents	# of R	GWM	SD	Computed T-value	Tabular	Decision	Interpretation
Group A	15	3.75	0.442		T-value Given: 2.043	Fail to reject the HO	No Significance
Group B	15	4.03	0.223	1.253			

As shown in Table 7, Group A and Group B found no significant factors that can affect their improvement of skills in computer system maintenance in terms of the survey questionnaire with respect to Time Management since the computed T-value of 1.253 did not reach the tabular T-values of 2.043.

There is no significant difference in the factors that can affect the improvement of their skills with respect to time management. Therefore, it accepts the null hypothesis that time management doesn't affect the improvement of students' skills in computer system maintenance.

Table 8 Computed T-Values of Significant Differences on the Factors That Can Affect Skills Improvement Among the Two Groups of Respondents with Respect to Test Preparation

Respondents	# of R	GWM	SD	Computed T-value	Tabular	Decision	Interpretation
Group A	15	3.69	0.707		T-value Given: 2.043	Fail to reject the HO	No Significance
Group B	15	3.76	0.426	0.19			

As shown in Table 8, Group A and Group B found no significant factors that can affect their improvement of skills in computer system maintenance in terms of the survey questionnaire with respect to Test Preparation since the computed T-value of 0.19 did not reach the tabular T-values of 2.043.

There is no significant difference in the factors that can affect the improvement of their skills with respect to test preparation. Therefore, it accepts the null hypothesis that test preparation doesn't affect the improvement of students' skills in computer system maintenance.

Table 9 Computed T-Values of Significant Differences on the Factors That Can Affect Skills Improvement Among the Two Groups of Respondents with Respect to Reading

Respondents	# of R	GWM	SD	Computed T-value	Tabular	Decision	Interpretation
Group A	15	4.17	1.167		T-value		
Group B	15	4.35	0.357	1.154	Given: 2.043	Fail to reject the HO	No Significance

As shown in Table 8, Group A and Group B found no significant factors that can affect their improvement of skills in computer system maintenance in terms of the survey questionnaire with respect to Reading since the computed T-value of 1.154 did not reach the tabular T-values of 2.043.

There is no significant difference in the factors that can affect the improvement of their skills with respect to reading. Therefore, it accepts the null hypothesis that test preparation doesn't affect the improvement of students' skills in computer system maintenance.

6. Conclusion
Based on the findings, it was concluded that time management, test preparation, and reading were not significant in terms of sex, monthly family income, and academic performance, which are the factors that can affect Information Technology students' skills improvement in computer system maintenance.

7. Recommendations
The following recommendations are offered to increase the skills improvement of Information Technology students.

1. Teachers should often act as facilitators and guides in the classroom so that students learn well, especially during computer system maintenance courses, which are major subjects.
2. The teachers should be creative and emphasize more often the relation of course topics with the actual maintenance procedures in the computer system to increase the skills improvement of Information Technology students.
3. Parallel studies considering other factors aside from what is provided in the study may be utilized to have a better outcome for the topic.

Conflicts of Interest: The authors declare no conflict of interest.

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