



## **ENHANCING LEADERSHIP THROUGH GOOGLE APPLICATION TOOLS IN SELECTED PUBLIC AND PRIVATE SCHOOLS**

Marvin S. Garrido

*FIRST College, National Teachers College, Tanauan City, Batangas, Philippines*

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### **ABSTRACT**

The main goal of this study is to examine the integration of Google Application Tools with leadership effectiveness among school leaders in public and private schools of Tanauan and Sto. Tomas City Division, Batangas. The researcher aims to explore how such tools impact leadership practices, decision-making processes, communication, and organizational performance more broadly. Proponents utilized a quantitative approach that employs quantitative surveys. The investigation aims to deeply explore the phenomenon of leader perception and experience based on the use of Google Application Tools in their roles of leadership. The implication of this paper has discovered advantages in adopting Google Application Tools for enhancing leadership performance in their organization, hence providing recommendations to leaders, authorities and academics in dissemination of technology for leadership betterment and keeping track of the innovation in the contemporary world.

**Keywords:** *Google Application Tools, Web Video Conferencing, Electronic Learning*

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### **INTRODUCTION**

The leaders in an organization are one of the biggest parts for the management to be successful and for all the team members to be productive and perform well in their designated area. Leadership is significantly important to improve the environment for learning, the school conducts teacher growth and ensures student learning outcomes. As technology continues to evolve at a rapid pace, leaders are introduced to new tools and

new platforms to help them be more effective and efficient. The Google Application Tools, including, Google Drive, Google Classroom, Google Meet etc. provides a comprehensive set of functionalities designed to fulfill the varied requirements of educational leaders. This paper investigates the use of these tools in schools by principals of both the public and private sectors, in order to delineate their effects on leadership performance.

On the other hand, there are a range of studies that have explored the application of Google Apps in various fields. Andreeva (2019) highlights the use of Google Apps in e-learning, emphasizing its cost-effectiveness, accessibility, and versatility. Similarly, Pawar (2019) discusses the potential of Google Tools in library and information services, noting their ability to enhance user experience. Gonzales (2021) focuses on the use of Google Apps in teaching practice, reporting significant time savings and improved student performance. Alvim (2018) underscores the importance of simplicity and focus in collaborative work, drawing on the experience of Google Apps workshops. These studies collectively underscore the wide-ranging benefits of Google Apps in different professional and educational contexts. While Fu (2020) focuses on the use of Android raw Global Navigation Satellite System measurement datasets for precise positioning and Liang (2018) provides a broader perspective, reviewing the applications and impacts of Google Earth, particularly in Geographic Information Science, remote sensing, and geosciences. These studies collectively underscore the diverse and significant role of Google Application Tools in different domains.

As to Santos (2021), in the study "Google Classroom: Beyond the Traditional Setting" stated that school leaders utilize Google application tools to enhance their leadership performance. Through interviews and surveys with principals and administrators, the study explores the adoption, challenges, and benefits of using Google Application Tools such as Google Drive, Google Classroom, and Google Meet. Findings from the study indicate that school leaders in both public and private schools increasingly rely on Google application tools to streamline administrative tasks, improve communication with stakeholders, and foster collaboration among teachers and staff members. However, the study also identifies challenges such as limited access to technology, inadequate training, and privacy concerns that hinder the effective use of Google Application Tools.

The study of Torrato et al (2021), "Using Web Video Conferencing to Conduct a Program as a Proposed Model toward Teacher Leadership and Academic Vitality in the Philippines" demonstrated that the use of WVC had an overall positive outcome on participants' performance. Video conferencing has flourished with the development of various services on the Internet. Video conferencing, as a way of open and distance learning, provides education and training in a more flexible way than the regular teaching methods. Technology is an essential component of this training program. However, training quality relies on teaching, cognitive, and social presence, rather than on technology. Nonetheless, technology remains an important platform that supports professional development activities. The completion of this study reflected positively on the success of the use of WVC to conduct the Sustaining Teacher Leadership and

Academic Vitality through Research program. Thereby, affirming that with the halt of face-to-face learning, learning can be achieved.

According to Dutta (2018), about "Google Apps and Their Applications in eLearning: A Study " Technology has played an immense role in each and every sphere among which the educational sector is not an exception. The role of technology in the sphere of education is increasing at a phenomenal rate which has even revolutionized the traditional process of teaching-learning. Development of different types of technological tools catered these diverse backgrounds and demands of learners in the educational system. This is among the most important explosions propelled by the internet transformation. Education beyond face to face is no more simply an assemblage of words understandable only by a few but the present situation it has become a part and parcel of everybody's life. This process operates through various apps & tools. Google provides different apps & tools for these purposes. Google plays a role as a panacea for the e-Education system. This study mainly focuses on a few Google Application Tools such as Google Classroom, G-mail, Google Meet, Google Drive, and Google Forms. The main objective of the article is to highlight the role of Google apps and tools in imparting education beyond the traditional classroom. It further focuses on the various purposes of using the same, various problems faced in using such tools along with probable solutions. Also highlight the librarian's role to improve the application of Google apps and tools.

The study of Hussaini and Libata (2020), about the study entitled "Effectiveness of Google Classroom as a Digital Tool in Teaching and Learning: Students' Perceptions" indicated that Google Classroom is effective in improving Students access and attentiveness towards learning, knowledge and skills gained through Google Classroom makes Students to be active learners, as a Digital Tool, it provides meaningful feedback to both Students and Parents. However, Poor network hinders students from effective utilization of Google Classroom; thus, submitting their work late. Therefore, teachers should integrate the conventional teaching with Google Classroom to improve Students' Performance. Google Classroom should also be a form of assessing Students' Assessment through online Assignments and Quizzes; hence making Students to participate actively in Educational Technology Classes. The University should also provide a standard network to enable Students to join Google Classroom and submit their assignments on time.

Furthermore, the researchers aim to know if the use of Google Application Tools by leaders from public and private schools of Tanauan and Sto.Tomas City Division, Batangas helps in their leadership in their organization and if their work has become more smooth and if it has been easier for them to communicate with their team members due to the use of modern communication methods using Google Application Tools.

## **Research Questions**

This study is an attempt to identify the enhancing leadership through Google Application Tools in selected public and private schools.

Specifically, this study would like to answer the following questions:

1. What is the profile of the selected public and private school leaders in terms of:
    - 1.1 Age
    - 1.2 Gender
    - 1.3 School Types
    - 1.4 Length of Leading Experience
  2. What are the enhancement of using Google Application Tools by the leaders performance in selected public and private schools in terms of:
    - 2.1 Managerial Skills
    - 2.2 Career Innovation
    - 2.3 Time Management
  3. What is the level of effectiveness of using Google Application Tools in enhancing selected public and private school leader's performance in terms of:
    - 3.1 Technological Advancement
    - 3.2 Job Performance
    - 3.3 Resolving Work Issues
  4. Is there a significant difference between selected public and private school leader's performance in using Google Application Tools?
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## **METHODOLOGY**

This research adopts a quantitative approach in investigating the use of Google Application Tools by the school leaders. The results of this study will be used to design a quantitative survey of a purposive sample of primary, secondary and tertiary leaders and school district administrators from public and private schools of Tanauan and Sto.Tomas City Division, Batangas. Drawing on these experiences, the surveys will ask participants about the enhancement and effectiveness by using Google Application Tools. The findings will also be complemented with quantitative survey data that are collected from a larger sample, to be able to address whether Google Application Tools are widely employed and effective in education.

There are multiple factors used by the researchers to assess the enhancement of leaders' performance by utilizing Google Application Tools. These may include managerial skills, career innovation, time management, technological advancement, job performance, resolving work issues. However, the scope of this study will focus on enhancements and effectiveness of using Google Application Tools by the leader's performance. This study is limited to some selected public and private schools of Tanauan and Sto.Tomas City Division. It covers the teacher's profile which includes age, gender, school types, and length of leading experience that make this study manageable to various constraints of the enhancements and effectiveness of using Google Application Tools by the leader's performance.

The validity of the instrument used in gathering the data prepared by the researcher is presented to an external individual from the proponent workplace that has an expertise in the field of research. The draft of the questionnaire is analyzed considering its contents, structure and purpose. It is anticipated that there will be some revision on the different items based on the construction of the final draft of the instrument. The draft is also presented to the researcher instructor in Doctorate Degree, and other three experts in the field. To check the reliability of the questionnaire it is multiplied to one private and one public school to compare. It is understood that the leaders who were used in checking the reliability of the questionnaire will not be the same respondents of the study to be conducted; they may come from other public and private schools. This shows that the validity and reliability of the questionnaire that is being used to conduct the study ensures an accurate result from selected public and private schools by using Google Application Tools in enhancing leadership performance.

## RESULTS

The results deal with the presentation, analysis and interpretation of the data gathered with regard to using Google Application Tools from selected public and private schools in enhancing leadership performance.

Specifically the purpose of this study is to find the answer in the following queries.

### 1. On the Profile of the Respondents in terms of Age, Gender, School Types and Length of Leading Experience.

**Table 1.1**  
**Profile of the Leaders in Terms of Age**

Age	Frequency	Percentage
24 - 26	6	7.50%
27 - 29	19	23.75%
30 - 32	7	8.75%
33 - above	48	60%
Total	80	100%

The table shows the distribution of the respondents according to their age. Majority of the leaders are age 33 - above with frequency count of 48 or 60 percent, followed by 27 - 29 years old with frequency count of 19 or 23.75 percent, then 30 - 32 years old with frequency count of 7 or 8.75 percent and lastly the leaders aging 24- 26 with frequency count of 6 or 7.50 percent.

From the findings it was revealed that the majority of the leaders of ages 33 - above are utilizing Google Application Tools in enhancing leadership. This implies that they keep up in technology learning advancement despite their age.

**Table 1.2**  
**Profile of the Leaders in Terms of Gender**

<b>Gender</b>	<b>Frequency</b>	<b>Percentage</b>
Male	25	31.25%
Female	55	68.75%
Total	80	100%

The data in the table indicate the distribution of respondents according to their gender. Most of the leaders are female with frequency count of 55 or 68.75 percent, along with the male leaders with frequency count of 25 or 31.25 percent.

This implies that the majority of the leaders in the mentioned areas were female and sincerely engaged in using Google Application Tools in enhancing leadership.

**Table 1.3**  
**Profile of the Leaders in Terms of School Types**

<b>School Types</b>	<b>Frequency</b>	<b>Percentage</b>
Public	40	50%
Private	40	50%
Total	80	100%

The table shows the distribution of the respondents according to school types. It uses public school leaders with frequency count of 40 or 50 percent and private school leaders with frequency count of 40 or 50 percent.

This implies that the respondents used in this study were equal to formally assess the accurate result in gathering the data in both selected public and private schools.

**Table 1.4**  
**Profile of the Leaders in Terms of Length of Leading Experience**

<b>Length of leading experience</b>	<b>Frequency</b>	<b>Percentage</b>
1 - 5	28	35%
6 - 10	5	6.25%
11 - 15	12	15%

16 - 20	30	37.50%
21 - 25	2	2.50%
26 - above	3	3.75%
Total	80	100%

The table shows the distribution of the respondents according to length of leading experience. Majority of the leaders has 16 - 20 years of leading experience with frequency count of 30 or 37.50 percent, followed by 1 - 5 years of leading experience with frequency count of 28 or 35 percent, then 11 - 15 years of leading experience with frequency count of 12 or 15 percent, next is 6 - 10 years of leading experience with frequency count of 5 or 6.25 percent, another is 26 - above years of leading experience with frequency count of 3 or 3.27 percent, and lastly is 21 - 25 years of leading experience with frequency count of 2 or 2.50 percent.

This implies that leaders with 16 - 20 years of leading experience have the highest count and are indeed capable in utilizing Google Application Tools in enhancing leadership.

## 2. The enhancement of using Google Application Tools by the leaders performance in selected public and private schools in terms of Managerial Skills, Career Innovation, and Time Management.

**Table 2.1**  
**The enhancement of using Google Application Tools by the leader's performance in terms of Managerial Skills**

Indicators	Public Leaders			Private Leaders			Total		
Managerial Skills	WM	V.I	Rank	WM	V.I	Rank	WM	V.I	Rank
2.1.1 Have you been more effective in conveying information clearly to your team through Google Application Tools?	4.48	Agree	1.25	4.40	Agree	4.5	4.44	Agree	3.5
2.1.2 Do you become more organized in managing your team using Google Application Tools?	4.48	Agree	1.25	4.40	Agree	4.5	4.44	Agree	3.5
2.1.3 Have you become more competent in using Google Application Tools to enhance the collaboration and productivity of your team's work?	3.95	Agree	5	4.48	Agree	3	4.22	Agree	5
2.1.4 Do you feel that it is easier for you to share tasks with your	4.48	Agree	1.25	4.50	Strongly Agree	2	4.49	Agree	2



team through Google Application Tools?									
2.1.5 Have you improved your team's work even when remote collaboration is happening using Google Application Tools?	4.48	Agree	1.25	4.60	Strongly Agree	1	4.54	Strongly Agree	1
<b>Composite Mean</b>	<b>4.37</b>	<b>Agree</b>		<b>4.48</b>	<b>Agree</b>		<b>4.43</b>	<b>Agree</b>	

The table shows the enhancement of using Google Application Tools by the leader's performance in terms of managerial skills. Public and private leaders perceived that they have improved their team work even when remote collaboration is happening using Google Application Tools which obtain the weighted mean of **4.54** with verbal interpretation of Strongly Agree on rank number **1**. This implies that it improves the collaboration of the team even with distance communication.

Moreover, leaders feel that it is easier for them to share tasks with their team through Google Application Tool which obtains the weighted mean score of **4.49** with Agree verbal interpretation on rank number **2**. This implies that leaders can easily interact with his team by sharing the tasks.

Furthermore, leaders have been more effective in conveying information clearly to their team through Google Application Tools which obtains the weighted mean score of **4.44** with verbal interpretation of Agree on rank number **3.5** and leaders become more organized in managing their team using Google Application Tools which also obtains the weighted mean score of **4.44** with verbal interpretation of Agree on rank number **3.5**. This implies that leaders can easily disseminate and manage information through their colleagues using Google Application Tools.

Leaders become more competent in using Google Application Tools to enhance the collaboration and productivity of their team's work which obtained the weighted mean score of **4.22** with verbal interpretation of Agree on rank number **5**. This implies that using Google Application Tools the team becomes more knowledgeable in their work.

The computed composite mean obtained a score of **4.43** with verbal interpretation of **Agree**. This implies that with Google Application Tools, leaders can more effectively organize their workload and promote team communication.

**Table 2.2**  
**The enhancement of using Google Application Tools by the leader's performance in terms of Career Innovation**

Indicators	Public Leaders			Private Leaders			Total		
	WM	V.I	Rank	WM	V.I	Rank	WM	V.I	Rank
Career Innovation									



2.2.1 Has the use of Google Application Tools improved your performance at work?	4.00	Agree	4.5	3.98	Agree	1.5	3.99	Agree	4
2.2.2 Do you believe that employing Google Application Tools has made you a more successful leader?	4.00	Agree	4.5	3.90	Agree	3	3.95	Agree	5
2.2.3 How often do you feel encouraged to think creatively and propose innovative ideas related to your career and role using Google Application Tools?	4.48	Agree	1.33	3.88	Agree	4	4.18	Agree	2
2.2.4 Do you think using Google Application Tools helps you become more professional and keeps up with cutting-edge developments in your field of work?	4.48	Agree	1.33	3.98	Agree	1.5	4.23	Agree	1
2.2.5 Have you used Google Application Tools to generate innovative ideas for the betterment of your institution?	4.48	Agree	1.33	3.83	Agree	5	4.16	Agree	3
<b>Composite Mean</b>	<b>4.29</b>	<b>Agree</b>		<b>3.91</b>	<b>Agree</b>		<b>4.10</b>	<b>Agree</b>	

The table shows the enhancement of using Google Application Tools by the leader's performance in terms of career innovation. Public and private leaders perceived that they think using Google Application Tools helps them become more professional and keeps up with cutting-edge developments in their field of work which obtained the weighted mean of **4.23** with verbal interpretation of Agree on rank number **1**. This implies that leaders become more proficient and innovative in the nature of their works.

Moreover, leaders feel encouraged to think creatively and propose innovative ideas related to their career and role using Google Application Tools which obtains the weighted mean score of **4.18** with Agree verbal interpretation on rank number **2**. This implies that leaders have the sense to contemplate resourcefully and create new ideas for the betterment of his work.

Leaders used Google Application Tools to generate innovative ideas for the betterment of their institution which obtains the weighted mean score of **4.16** with Agree verbal interpretation on rank number **3**. This implies that leaders produce advanced concepts for the improvement of the organization using Google Application Tools.

Furthermore, leaders used Google Application Tools to improve their performances at work which obtains the weighted mean score of **3.99** with Agree verbal interpretation on rank number **4**. This implies that leader's work more smoothly using Google Application Tools.

Leaders believe that employing Google Application Tools has made them a more successful leader which obtains the weighted mean score of **3.95** with Agree verbal

interpretation on rank number **5**. This implies that leaders became better leaders in their organization due to the use of Google Application Tools.

The composite mean obtained a score of **4.10** with verbal interpretation of **Agree**. This implies that when it comes to career innovation with the use of Google Application Tools in leadership, leaders have become more resilient to change.

**Table 2.3**  
**The enhancement of using Google Application Tools by the leader's performance in terms of Time Management**

Indicators	Public Leaders			Private Leaders			Total		
Time Management	WM	V.I	Rank	WM	V.I	Rank	WM	V.I	Rank
2.3.1 With Google Application Tools, has it been simpler for you to keep track and manage your deadlines?	3.95	Agree	4.5	4.30	Agree	5	4.13	Agree	5
2.3.2 Do you find that the integration of various Google Application Tools contributes to time efficiency in your daily work tasks?	4.48	Agree	1.33	4.63	Strongly Agree	1	4.56	Strongly Agree	1
2.3.3 When arranging meetings and activities with your team, can using Google Application Tools improve communication and efficiency in real time?	3.95	Agree	4.5	4.50	Strongly Agree	3	4.23	Agree	4
2.3.4 Do you think using Google Application Tools supports your time management even more because of working remotely or in a virtual environment?	4.48	Agree	1.33	4.60	Strongly Agree	2	4.54	Strongly Agree	2
2.3.5 Do you believe that using Google Application Tools improved your overall time efficiency in finishing team duties or projects?	4.48	Agree	1.33	4.45	Agree	4	4.47	Agree	3
<b>Composite Mean</b>	<b>4.27</b>	<b>Agree</b>		<b>4.50</b>	<b>Strongly Agree</b>		<b>4.39</b>	<b>Agree</b>	

The table shows the enhancement of using Google Application Tools by the leader's performance in terms of time management. Public and private leaders find that the integration of various Google Application Tools contributes to time efficiency in their daily work tasks which obtained the weighted mean of **4.56** with verbal interpretation of Agree on rank number **1**. This implies that leaders are more effective at managing their time to complete tasks and perform better.

Moreover, leaders think that using Google Application Tools supports their time management even more because of working remotely or in a virtual environment which obtains the weighted mean score of **4.54** with Strongly Agree verbal interpretation on rank number **2**. This implies that leaders can still operate more efficiently and are able to effectively manage their time despite the distance between them and their teammates.

Leaders believe that using Google Application Tools improved their overall time efficiency in finishing team duties or projects which obtains the weighted mean score of **4.47** with Agree verbal interpretation on rank number **3**. This implies that leaders utilize Google Application Tools to do their jobs more quickly.

Furthermore, leaders arrange meetings and activities with their team, using Google Application Tools improve communication and efficiency in real time which obtains the weighted mean score of **4.23** with Agree verbal interpretation on rank number **4**. This implies that leaders can more easily set meetings onsite or even online due to the use of Google Application Tools.

Leaders perceived that with the used Google Application Tools, it has been simpler for them to keep track and manage their deadlines which obtains the weighted mean score of **4.13** with Agree verbal interpretation on rank number **5**. This implies that using Google Application Tools has made it easier for leaders to understand and monitor task deadlines.

The composite mean obtained a score of **4.39** with verbal interpretation of **Agree**. This implies that leaders find it easier to use Google Application Tools to manage their time at work, even completing things faster than usual and setting up meetings with their teammates despite the team members' distances from one another.

### 3. The level of effectiveness of using Google Application Tools in enhancing selected public and private school leader's performance in terms of Technological Advancement, Job Performance, and Resolving Work Issues.

**Table 3.1**  
**The level of effectiveness of using Google Application Tools in enhancing leader's performance in terms of Technological Advancement**

Indicators	Public Leaders			Private Leaders			Total		
	WM	V.I	Rank	WM	V.I	Rank	WM	V.I	Rank
3.1.1 Has the use of Google Application Tools enhanced your technological knowledge?	4.48	Agree	1.25	4.63	Strongly Agree	4	4.56	Strongly Agree	3
3.1.2 Do you think using Google Application Tools	4.48	Agree	1.25	4.68	Strongly Agree	1.5	4.58	Strongly Agree	1

would make it easier for you to learn about the next modern aspects of technology?									
3.1.3 Have Google Application Tools improved your computer literacy?	4.48	Agree	1.25	4.65	Strongly Agree	3	4.57	Strongly Agree	2
3.1.4 Do you think that, even with today's technological advancements, Google Application Tools are secure to protect the data from your work?	4.48	Agree	1.25	4.60	Strongly Agree	5	4.54	Strongly Agree	4
3.1.5 Have you gained confidence in your ability to use technology, especially Google Application Tools for work-related tasks?	3.95	Agree	5	4.68	Strongly Agree	1.5	4.32	Agree	5
<b>Composite Mean</b>	<b>4.37</b>	<b>Agree</b>		<b>4.65</b>	<b>Strongly Agree</b>		<b>4.51</b>	<b>Strongly Agree</b>	

The table shows the level of effectiveness of using Google Application Tools in enhancing leader performance in terms of Technological Advancement. Public and private leaders think that using Google Application Tools would make it easier for them to learn about the next modern aspects of technology which obtained the weighted mean of **4.58** with verbal interpretation of Strongly Agree on rank number **1**. This implies that leaders think they can stay up to date with emerging, trendy forms of technology.

Moreover, leaders believe that using Google Application Tools improved their computer literacy which obtains the weighted mean score of **4.57** with Strongly Agree verbal interpretation on rank number **2**. This implies that leaders feel that by utilizing Google Application Tools, they can use computers more effectively.

Leaders perceived that by the use of Google Application Tools it enhanced their technological knowledge which obtains the weighted mean score of **4.56** with Strongly Agree verbal interpretation on rank number **3**. This implies that leaders believe that through the use of Google Application Tools, they have improved their technological skills.

Furthermore, leaders think that, even with today's technological advancements, Google Application Tools are secure to protect the data from your work which obtains the weighted mean score of **4.54** with Strongly Agree verbal interpretation on rank number **4**. This implies that leaders think that by using Google Application Tools, their data is safe even with the wide range of technologies in use.

Leaders gained confidence in their ability to use technology, especially Google Application Tools for work-related tasks which obtains the weighted mean score of **4.32** with Agree verbal interpretation on rank number **5**. This implies that leaders believe that

they are now more capable in using modern technologies through the use of Google Application Tools.

The composite mean obtained a score of **4.51** with verbal interpretation of **Strongly Agree**. This implies that leaders think that by utilizing Google Application Tools, they have improved their computer skills and are able to keep up with emerging technologies.

**Table 3.2**  
**The level of effectiveness of using Google Application Tools in enhancing leader's performance in terms of Job Performance**

Indicators	Public Leaders			Private Leaders			Total		
Job Performance	WM	V.I	Rank	WM	V.I	Rank	WM	V.I	Rank
3.2.1 To what extent do you think Google Application Tools help you complete tasks and work more efficiently?	4.48	Agree	1.33	4.40	Agree	5	4.44	Agree	3
3.2.2 Has utilizing Google Application Tools for task delegation and team collaboration enhanced your performance at work?	4.48	Agree	1.33	4.48	Agree	4	4.48	Agree	2
3.2.3 Do you think that using Google Application Tools has made your work easier?	3.95	Agree	4.5	4.55	Strongly Agree	1.5	4.25	Agree	4
3.2.4 Has using Google Application Tools made you more productive at work?	3.95	Agree	4.5	4.53	Strongly Agree	3	4.24	Agree	5
3.2.5 In light of Google Application Tools' assistance, how satisfied are you with the work you've done?	4.48	Agree	1.33	4.55	Strongly Agree	1.5	4.52	Strongly Agree	1
<b>Composite Mean</b>	<b>4.27</b>	<b>Agree</b>		<b>4.50</b>	<b>Strongly Agree</b>		<b>4.39</b>	<b>Agree</b>	

The table shows the level of effectiveness of using Google Application Tools in enhancing leader performance in terms of Technological Advancement. Public and private leaders perceived that In light of Google Application Tools' assistance, they are satisfied with the work they've done which obtained the weighted mean of **4.52** with verbal interpretation of Strongly Agree on rank number **1**. This implies that leaders believe that they are able to perform their tasks better by utilizing Google Application Tools.

Moreover, leaders utilizing Google Application Tools for task delegation and team collaboration enhance their performance at work which obtains the weighted mean score of **4.48** with Agree verbal interpretation on rank number **2**. This implies that the usage of

Google Application Tools made it simpler for leaders to distribute work to their team members.

Leaders think that Google Application Tools help them complete tasks and work more efficiently which obtains the weighted mean score of **4.44** with Agree verbal interpretation on rank number **3**. This implies that leaders think using Google Application Tools will enable them to complete their work more quickly.

Furthermore, leaders think that using Google Application Tools has made their work easier which obtains the weighted mean score of **4.25** with Agree verbal interpretation on rank number **4**. This implies that leaders think using Google Application Tools will make it easier for them to complete their work.

Leaders perceived that using Google Application Tools made them more productive at work which obtains the weighted mean score of **4.24** with Agree verbal interpretation on rank number **5**. This implies that leaders became more prolific at work by using Google Application Tools.

The composite mean obtained a score of **4.39** with verbal interpretation of **Agree**. This implies that using Google Application Tools has helped leaders work more efficiently, communicate with colleagues more effectively, and complete tasks more quickly.

**Table 3.3**  
**The level of effectiveness of using Google Application Tools in enhancing leader's performance in terms of Resolving Work Issues**

Indicators	Public Leaders			Private Leaders			Total		
	WM	V.I	Rank	WM	V.I	Rank	WM	V.I	Rank
3.3.1 Are you satisfied with how Google Application Tools is helping you with your work?	4.48	Agree	1.33	4.63	Strongly Agree	2	4.56	Strongly Agree	1
3.3.2 Has making use of Google Application Tools made it simpler for you to communicate with others?	4.48	Agree	1.33	4.10	Agree	5	4.29	Agree	4
3.3.3 Does using Google Application Tools make attending meetings and seminars simpler for you?	3.95	Agree	4.5	4.78	Strongly Agree	1	4.37	Agree	3
3.3.4 Have you solved your lack of knowledge when it comes to technology using Google Application Tools?	3.95	Agree	4.5	4.30	Strongly Agree	4	4.13	Agree	5

3.3.5 Has the use of Google Application Tools improved the effectiveness of your work?	4.48	Agree	1.33	4.60	Agree	3	4.54	Strongly Agree	2
<b>Composite Mean</b>	<b>4.27</b>	<b>Agree</b>		<b>4.48</b>	<b>Agree</b>		<b>4.38</b>	<b>Agree</b>	

This table shows the level of effectiveness of using Google Application Tools in enhancing leader performance in terms of Technological Advancement. Public and private leaders are satisfied with how Google Application Tools is helping them with their work which obtained the weighted mean of **4.56** with verbal interpretation of Strongly Agree on rank number **1**. This implies that leaders think Google Application Tools are beneficial to them in their work.

Moreover, with the use of Google Application Tools leaders improved the effectiveness of their work which obtains the weighted mean score of **4.54** with Strongly Agree verbal interpretation on rank number **2**. This implies that leaders think Google Application Tools has helped them become more productive at work.

Leaders believed that using Google Application Tools make attending meetings and seminars simpler for them which obtain the weighted mean score of **4.37** with Agree verbal interpretation on rank number **3**. This implies that the adoption of Google Application Tools has made it simpler for leaders to attend meetings and seminars both in person and virtually.

Furthermore, with the use of Google Application Tools leaders made it simpler to communicate with others which obtain the weighted mean score of **4.29** with Agree verbal interpretation on rank number **4**. This implies that it has become easier for leaders to contact their team members due to the use of Google Application Tools.

Leaders perceived that by using Google Application Tools solved their lack of knowledge when it comes to technology which obtains the weighted mean score of **4.13** with Agree verbal interpretation on rank number **5**. This implies that leaders have become better when it comes to using technology because of Google Application Tools.

The composite mean obtained a score of **4.38** with verbal interpretation of **Agree**. This implies that using Google Application Tools helps leaders handle issues more rapidly when they are at work.

#### **4. Is there a significant difference between selected public and private school leader's performance in using Google Application Tools?**



**Table 4.1**  
**The enhancement of using Google Application Tools by the leader's performance**  
**in selected public and private schools in terms of Managerial Skills, Career**  
**Innovation, and Time Management**

## Independent Samples T-Test

Independent Samples T-Test

		Statistic	df	p	Mean difference	SE difference
B	Student's t	0.0681 *	4.00	0.949	0.0133	0.196
	Mann-Whitney U	3.00		0.700	-0.130	

Note.  $H_a: \mu_{\text{public}} \neq \mu_{\text{private}}$

\* Levene's test is significant ( $p < .05$ ), suggesting a violation of the assumption of equal variances

## Assumptions

Homogeneity of Variances Test (Levene's)

	F	df	df2	p
B	11.0	1	4	0.030

Note. A low p-value suggests a violation of the assumption of equal variances

P-Value = 0.951646 is greater than the Significant level of 0.05, this indicates that the result is not statistically significant. It fails to reject the null hypothesis. In simpler terms, there isn't enough evidence to conclude that there's a significant difference between the two variables.

**Table 4.2**  
**The level of effectiveness of using Google Application Tools in enhancing selected public and private school leader's performance in terms of Technological Advancement, Job Performance, and Resolving Work Issues**

Independent Samples T-Test

Independent Samples T-Test

							95% Confidence Interval	
		Statistic	df	p	Mean difference	SE difference	Lower	Upper
B	Student's t	-3.80	4.00	0.019	-0.240	0.0632	-0.415	-0.0646
	Welch's t	-3.80	3.34	0.026	-0.240	0.0632	-0.430	-0.0502
	Mann-Whitney U	0.00		0.077	-0.230		-0.380	-0.110

Note.  $H_a: \mu_{\text{public}} \neq \mu_{\text{private}}$

Assumptions

Homogeneity of Variances Test (Levene's)

	F	df	df2	p
B	1.50	1	4	0.287

Note. A low p-value suggests a violation of the assumption of equal variances

P-value of  $0.02642 < \alpha (0.05)$ : This indicates that the result is statistically significant. It rejects the null hypothesis in favor of the alternative hypothesis. Therefore, it concludes that there is a significant difference between the two variables that are being compared.

## DISCUSSION

The researcher conducted this study to know the leadership performance between the public and private schools leaders in accordance with the fact that two types of organizations may have different strategies in managing their team. The proponent found out that leaders from public and private schools can keep up with the use of modern technologies and they both know how to use Google Application Tools regardless of their age, gender, school types, and their length of leading experiences. Leaders know how to communicate well with their teammates with the use of modern technologies and utilize the features of Google Application Tools well. Perhaps with the development of technology, the Department of Education is able to stay up to date with the latest technology trends and make sure that the quality of education will be better as technology also develops. As said by Santos, J., school leaders utilize Google application tools to

enhance their leadership performance and explore the adoption, challenges, and benefits of using Google Application Tools such as Google Drive, Google Classroom, and Google Meet. The study indicates that school leaders in both public and private schools increasingly rely on Google application tools to streamline administrative tasks, improve communication with stakeholders, and foster collaboration among teachers and staff members.

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## Conclusions

With reference to the data collected, the following conclusions were drawn by the researcher:

1. The researcher concluded that age, gender, school types, and leading experiences are not the basis for keeping up with modern technologies when it comes to leading an organization. Leaders can easily keep up with new trends in technology to make their work easier and to be more efficient in leading their team members.
2. The public and private leaders perceived that they improved their leadership by using Google Application Tools. It has become easier for them to be more effectively organized in their workload and promote team communication, become more resilient to change, and find it easier to use Google Application Tools to manage their time at work, even completing things faster than usual and setting up meetings with their teammates despite the team members' distances from one another.
3. The public and private leaders agreed with the effectiveness of using Google Application Tools they think that by utilizing Google Application Tools, they have improved their computer skills and are able to keep up with emerging technologies, helping them work more efficiently and communicate with colleagues more effectively, and complete tasks more quickly and help leaders handle issues more rapidly when they are at work.
4. Given the performance of two groups of respondents with regards to the cited variables related to enhancing leadership through Google Application Tools are generally showing no significant difference, it could be concluded that the public and private leaders possess common and similar capabilities in adapting to new technology trends that resulted in a better way of leading.

## Recommendations

The data obtained, led in the formulation of the following recommendations and suggestions.

1. Conduct a similar study and use public and private leaders from other districts or divisions.
2. It could also be recommended that the specific division may conduct an evaluation of the leader's performance to assess if there are things that should be improved and if there are new technology trends that should be known.

3. The proponents also recommended using other variables in identifying other factors or effects in utilizing the Google Application Tools by the leaders.
4. It could also be suggested to conduct a study like this and use other respondents such as teachers and students.
5. The leaders should always be ready for technological change for them to quickly adopt when there is a new technology platform that is needed to apply in the organization.
6. Leaders should attend programs or seminars associated with new trends of technology to nurture their technological skills.
7. The researchers recommended to the future researchers to use references from national libraries to grasp more resources about enhancing leadership through Google Application Tools.
8. Future researchers must provide more useful information about the study by using other types of methodology in data gathering procedure.
9. Future researchers must also conduct the study in other regions to have at least different areas of knowledge and open up to different opinions and new ideas to the respondents.
10. The researcher recommended to the future researchers to widen the respondents to gather more ideas, opinions, perceptions and insights for the betterment of the study.

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## **Compliance with Ethical Standards**

All procedures performed by the researcher in this study were formally informed and asked the permission of the school leaders. The proponents also ensure that the respondents are willingly participating in gathering the data and the respondents had given the right to withdraw their participation at any time. The respondents' participation in the study and responses to the questions are confidential. Data used in reports will be presented in a manner that prevents identifications of individuals and protects the respondent's individual identity. The references used in this study were provided by the researchers to prevent plagiarism, and the study's findings were only utilized for research.

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*marvingarrido888@gmail.com*