



Original article

## Google drive and text production in students of a national university, 2023

Google drive y producción de textos en estudiantes de una universidad nacional, 2023

Google drive e produção de textos em estudantes de uma universidade nacional, 2023

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**Received:** September 22, 2023

**Accepted:** October 24, 2023

### ABSTRACT

During the pandemic, the quarantine actively promoted, on Google drive, collaborative work among university students. This tool allowed not only to share documents online, but also to modify them in real time, as well as create folders, files, among others. The objective of the research was to determine the perception between the use and management of the Google Drive application and the production of academic texts in students of various majors at a national university. For this, two questionnaires were used to measure both variables: Google drive and textual production. The results showed that there is a direct and significant relationship between the perception of the use of Google drive and the improvement in the production of texts in the students of a national university, 2023. In conclusion, the students improved their textual production using the Google drive tool.

**Keywords:** Google drive; text production; written texts.

### RESUMEN

Durante la pandemia, la cuarentena propició de manera activa, en Google drive, el trabajo colaborativo en estudiantes universitarios. Esta herramienta permitió no solo compartir documentos en línea, sino modificarlos en tiempo real, así como crear carpetas, archivos, entre otros. La investigación tuvo como objetivo determinar la percepción entre el uso y manejo del aplicativo Google Drive y la producción de textos académicos en los estudiantes de diversas carreras de una universidad nacional. Para ello se utilizó dos cuestionarios para medir ambas variables: Google drive y producción textual. Los resultados arrojaron que existe relación directa y significativa entre la percepción del uso del Google drive y la mejora en la producción de textos en los estudiantes de una universidad nacional, 2023. En conclusión, los estudiantes mejoraron su producción textual mediante la herramienta Google drive.

**Palabras clave:** Google drive; producció de textos; textos escritos.

### RESUMO

Durante a pandemia, a quarentena promoveu ativamente, no Google dirve, o trabalho colaborativo entre estudantes universitários. Esta ferramenta permitiu não só partilhar documentos online, mas também modificá-los em tempo real, bem como criar pastas, ficheiros, entre outros. O objetivo da pesquisa foi determinar a percepção entre o uso e gerenciamento do aplicativo Google Drive e a produção de textos acadêmicos em estudantes de diversos cursos de uma universidade nacional. Para isso, foram utilizados dois questionários para mensurar ambas ases variáveis: Google drive e produção textual. Os resultados mostraram que existe uma relação direta e significativa entre a percepção do uso do Google drive e a melhoria na produção de textos nos alunos de uma universidade nacional, 2023. Concluindo, os alunos melhoraram sua produção textual utilizando o Google ferramenta de acionamento.

**Palavras-chave:** Google drive; produçã de texto; textos escritos.

## INTRODUCTION

It is important to note that, before the pandemic, students did not constantly interact with their classmates when writing some type of academic text. It is from social isolation (2020) that educational institutions had to change the in-person to remote modality to meet the pedagogical objectives. Faced with this situation, university students began to work online because, in different courses, teachers requested the writing of academic texts. However, poor management of platforms and applications was observed in both teachers and students. This situation is reaffirmed by Meza *et al.*, (2021); It showed that students do not have

linguistic, disciplinary literacy or strategic elements to produce a formal text. For this reason, universities strengthened training in the use of digital platforms and tools. One of these applications that facilitated both teaching and university collaborative work was *Google Drive*. This tool made it easier for university work to be collaborative; That is, students could improve and edit the document without the need to be in person; since they could enter the document at any time and, consequently, there was permanent collaboration between its members, as well as sending screenshots and PD files (León and Jiménez, 2022).

The research focuses on the relationship between two variables: *Google drive* and text production. In the first variable, five dimensions were identified: File creation, file upload, compatibility, sharing and synchronization. While, in the second variable, four dimensions: analysis of the communication situation, organization of information, writing and review process.

### **Google drive and text production**

*Google Drive* is a completely free tool that different users can access from anywhere to work on all types of files. However, it is important that higher institutions provide facilities for students to access the internet (Rangel *et al.*, 2021). On the one hand, Álvarez *et al.* (2016) maintain that *Google drive* is a collaborative website. In other words, it allows you to store and edit documents and spreadsheets. On the other hand, this feature facilitates collaborative work; That is, the members of the group take responsibility not only for their work, but also collaborate with the work of their colleagues.

Currently, it is very easy to create files or a folder because if the student does not know the procedure, I can view tutorials on YouTube that are easily accessible. Sultanova and Belando (2022) recommend that to obtain the maximum benefit and benefit from uploading, forwarding and receiving files, it is necessary to have a

*Gmail email account*, which is part of the *Google company*. Thus, files such as folders can be stored in this tool and shared with anyone and assign functions such as editing, commenting or just viewing the file. In addition, *Google Drive* allows works to be synchronized simultaneously on all our devices and automatically and, above all, the application can be used at any time and through any device with or without an internet connection.

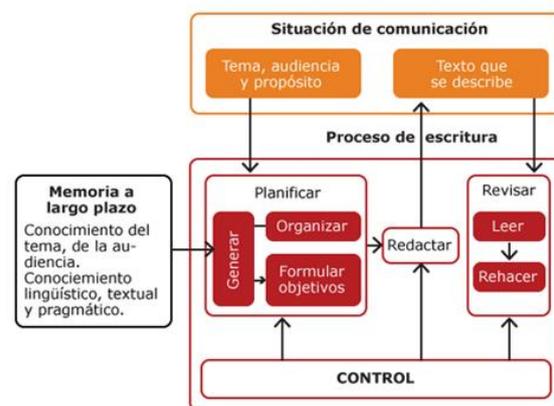
With this, you will have the option to link applications without the need to create new accounts. Another important aspect is the compatibility it offers with different common formats. López and Bernal (2018) highlight the importance of having current operating systems to obtain maximum performance and compatibility with the files used in digital communication. Likewise, it is a technological tool that works on all types of devices. This increases the number of people who can use it as a support tool in the digital environment.

As *Google Drive* is an interactive online tool, it made it easier to improve the understanding and writing of texts. In Peru, Writing or similar courses have been incorporated into the General Curriculum; Well, one of the skills that the student must achieve is to write a text, whether expository, argumentative or a monograph. In this sense, the Google drive tool will strengthen this writing process from planning to editing an academic text.

When students enter university, they carry the school habits of copying texts, distancing themselves from reading and writing; For this reason, they ask their teachers for less reading and fewer written tests. What's more, the Peruvian university has been forced to recognize the problem and, therefore, in recent decades, it has incorporated writing or argumentation courses in its first cycles; That is, by confirming that students cannot formalize their thoughts in a text, they have been forced to establish school subjects in their curriculum.

Textual production is a cognitive process that pursues the development of mental phases. According to Cassany (2003), it is divided into the analysis of the communicative situation and the organization of information, textualizing and reviewing. Likewise, he points out that the task of writing a coherent text suitable for its purposes is not carried out directly but in several and recurring stages in which the writer must coordinate a set of specific procedures: planning (purpose, content outline...), textualization (adequate lexicon, coherence...) and revision (rereading and evaluating the text).

To carry out the production of a text, as indicated by Cassany, it is important to carry out various sub-processes: communicative situation, generation and organization of ideas, the writing itself and its review to verify that the text meets the objectives. . This is represented by the diagram presented below.



**Fig. 1-** Model of the writing process taken from Cassany (2003:264)

From the previous table, this variable will be dimensioned in four steps or stages of written production: Analysis of the communication situation, organization of information, writing of the text and revision.

Regarding the Analysis of the communication situation dimension, the author of the text must take into account who it is intended for or who will read the

text. In other words, in this dimension, the effect or intentionality that is desired to be produced at the time of reading the product is highlighted (Casanny, 2003). From a sociolinguistic criterion, Almidón et al., (2021) highlights that every student has their own customs, values and thoughts, which are expressed when communicating. This is where the relevance of the interaction and interest that the person has with their own reality is highlighted. In other words, this dimension is of great interest in the assessment of the social framework that the student decides for the production of his text. When analyzing the communicative intention, it is necessary to collect information, which is represented in sentences or elements that imply actions, components of a general episode.

Regarding the second dimension, the organization of information consists of developing a mental representation that provides a general idea of what is going to be written and the steps to proceed. In most cases, the authors resort to various types of schemes to comply with this dimension. For its respective elaboration, it has 3 stages: generating, organizing and formulating objectives (Casanny, 2003). In the general stage, it is important to resort to the previous information and memory that the author has regarding the topic that is going to be produced; This memorized information is transferred into a scheme through a list, brainstorming, keywords or other strategies. In the organizing stage, the information captured is ordered and classified; This is where the author chooses which graphic representation is going to be used to organize the ideas (conceptual map, key diagram, content diagram, mental map...). From this moment we put our discursive and textual competence into practice. As a final stage, the formulation of objectives establishes the purposes that the text will have. Since it is required to anticipate the future, it is necessary for the author to know a textual structure and master the content to fulfill the determined purpose (Cassany, 1998). If the origins of this criterion are analyzed, one of the first theorists was Van Dijk and Kintsch (1983), who define it as the sketch or skeleton of

all the segments into which the text is made up. Estévez et al., (2021) university classrooms still impose the importance of content and not processes when outlining a text. An example of this is when the teacher requires only one type of graphic or visual organizer when there are multiple alternatives. The above reflects the didactic transposition focused on the perspectives of the teacher who, unconsciously, limits the practical expressiveness of the student.

The third dimension consists of the writing process itself. In this stage, the ideas organized in the previous stage are taken to transform them into text. It is at that moment where the schematic representation is put aside to become an understandable and linear written verbal discourse (Casanny, 2003). In the writing process, we must take into account 3 fundamental criteria which represent the properties of every text: cohesion, coherence and accommodation. From a pragmatic and sociolinguistic criterion, especially in explanatory and argumentative texts, students incorporate their lexicon, prior knowledge, customs and elements that are part of their working memory. If the student uses a term that has imprecision or lexical impropriety, that is a reflection of their daily interaction with their context (Almidón et al., 2021).

As the last dimension, there is the review process. In this step, the author carries out constant supervision and control of what he has produced. This act is frequently reflected in the preliminary version of the text, which still has various criteria to correct. After this review process, the final version will be considered when it meets the objectives set in a previous stage (Casanny, 2003). At this stage, for the final text to be to the writer's liking and satisfaction, it must meet the following criteria: regulations, grammatical correctness and lexical richness. Finally, Almidón et al., (2021) highlights those repetitive errors regarding the regulations (tildes, commas, capital letters...) occur not because of rebellion, but because the norm or rule has not yet been assimilated due to because its context did not require

it either. An example of this is placing an accent on the monosyllable "fe"; In the streets you can see various posters where this term is marked with an accent, which results in the assimilation of the student.

*Google Drive* application and the production of academic texts in students of various majors at a national university.

## MATERIALS AND METHODS

The present research was carried out in the first semester of this year among undergraduate students of Linguistics, Law and Archeology at a public university in Lima.

### Sample

The population was made up of students from the first cycle of the Linguistics, Law and Archeology majors, with a total of 363. As the main inclusion criterion, all students in the population have experience in using *Google Drive*, as well as the production of texts in different courses. The characteristics of the students were the following: students enrolled at the university and who have a *Google Drive account*, students with internet access.

In the research, probabilistic sampling was used as a technique. For this, simple random sampling was used as a formula to determine the sample. After applying the formula, the sample was a total of 171 students from the Linguistics, Law and Archeology majors.

$$n = \frac{Z^2_{\alpha/2} P Q N}{\epsilon^2 (N - 1) + Z^2 P Q}$$

Calculation:

$$n = \frac{(1,96)^2 (0.5) (0.5) (363)}{0.05^2 (362) + (1,96)^2 (0.5) (0.5)}$$
$$n = 171.0395$$

### Instruments

In this research, two questionnaires were applied: a questionnaire to determine the level of use of *Google Drive* by Aliaga and Soncco (2022) and the academic text production questionnaire by the authors Ñañez and Lucas (2017). The first questionnaire consists of 16 questions divided into five dimensions: file creation, file upload, compatibility, sharing and synchronization. The second questionnaire includes four dimensions: Analysis of the communication situation, Organization of information, process of writing the text and Review. Each dimension presents its own indicators. This questionnaire includes 40 questions. Both questionnaires have a Likert scale.

### Procedure

As a procedure, the application of both questionnaires will be carried out virtually using the *Google Form tool*. on the university's virtual platform. The results of the questionnaires will be processed using the SPSS statistical program and, subsequently, the results will be communicated at 2 levels: descriptive and inferential. The first will be represented through tables of each variable and dimension with its proper interpretation. In the case of inferential, through tables, the acceptance or rejection of the proposed hypothesis will be analyzed.

Finally, based on these results, both directive and inferential, a method was proposed that aims to improve the production of academic texts in students. This method will focus on the most outstanding needs that the correlation coefficients showed based on the four

dimensions: analysis of the communication situation, organization of information, process of writing the text and revision.

## RESULTS

### Descriptive analysis of variable 1:

The results are presented from the instrument corresponding to variable 1: *Google Drive*, applied to university students at a public university. The dimensions were taken into account: create files, upload files, compatibility, share and synchronize to determine the level of perception that students have: regular or high.

**Table 1-** Frequency of the Google Drive variable

		Frequency	Percentage	Valid percentage	Accumulated percentage
Valid	Regular	39	22.8	22.8	22.8
	high	132	77.2	77.2	100.0
	Total	171	100.0	100.0	

From what is observed in Table 1, 72.20% of the students of the aforementioned university perceive that the *Google Drive variable* is "high." On the other hand, 22.8% are at a "regular" level.

### Descriptive analysis of variable 2: Text production

The results are presented from the instrument corresponding to variable 2: Text production, applied to university students at a public university. The dimensions were taken into account: analysis of the communication situation, organization of information, writing and review process.

**Table 2-** Frequency of the variable Text production

		Frequency	Percentage	Valid percentage	Accumulated percentage
Valid	In progress	twenty	11.7	11.7	11.7
	Accomplished	151	88.3	88.3	100.0
	Total	171	100.0	100.0	

From what is observed in Table 2, 88.30% of the students of the aforementioned university assert that the Text Production variable is at an "achieved" level. On the other hand, 11.70% are still in "in process".

**Table 3-** Correlation between the variables Google Drive and Text Production

			Google Drive	Text production
Spearman's Rho	Google Drive	Correlation coefficient	1,000	.556**
		Sig. (bilateral)	.	,000
		N	171	171
	Text production	Correlation coefficient	.556**	1,000
		Sig. (bilateral)	,000	.
		N	171	171

\*\* . The correlation is significant at the 0.01 level (two-sided).

As can be seen in Table 3, according to Spearman's Rho correlation coefficient, there is a relationship between the use of *Google Drive* and the production of written texts, this relationship being of moderate magnitude (.556\*\*) and with a positive trend. Likewise, the p value is less than the degree of statistical significance ( $p = .000 < 0.05$ ). In that sense, there is a direct and significant relationship between the perception of the use of Google drive and the improvement in the production of written texts in students of a national university, 2023.

**Table 4-** Correlation between the variables Google Drive and Analysis of the communication situation

			Googl e Drive	Analysis of the communicatio n situation
Spearman's Rho	Google Drive	Correlatio n coefficien t	1,000	.433**
		Sig. (bilateral)	.	,000
		N	171	171
	Analysis of the communicatio n situation	Correlatio n coefficien t	.433**	1,000
		Sig. (bilateral)	,000	.
		N	171	171

\*\* . The correlation is significant at the 0.01 level (two-sided).

As can be seen in Table 4, according to Spearman's Rho correlation coefficient, there is a relationship between the use of *Google Drive* and the analysis of the communication situation, this relationship being of moderate magnitude (.433\*\*) and positive trend. Likewise, the p value is less than the degree of statistical significance ( $p = .000 < 0.05$ ). In that sense, there is a direct and significant relationship between the perception of the use of Google Drive and the improvement in the analysis of the communication situation in students of a national university, 2023.

**Table 5-** Correlation between the variables Google Drive and Organization of information

			Google Drive	Organization of information
Spearman's Rho	Google Drive	Correlation coefficient	1,000	.476**
		Sig. (bilateral)	.	,000
		N	171	171
	Organization of information	Correlation coefficient	.476**	1,000
		Sig. (bilateral)	,000	.
		N	171	171

\*\* . The correlation is significant at the 0.01 level (two-sided).

As can be seen in Table 5, according to Spearman's Rho correlation coefficient, there is a relationship between the use of

*Google Drive* and the organization of information, this relationship being of moderate magnitude (.476\*\*) and positive trend. Likewise, the p value is less than the degree of statistical significance ( $p = .000 < 0.05$ ). In that sense, there is a direct and significant relationship between the perception of the use of *Google Drive* and the improvement in the organization of information in students of a national university, 2023.

**Table 6-** Correlation between the variables Google Drive and Writing process

			Google Drive	Writing process
Spearman's Rho	Google Drive	Correlation coefficient	1,000	.539**
		Sig. (bilateral)	.	,000
		N	171	171
	Writing process	Correlation coefficient	.539**	1,000
		Sig. (bilateral)	,000	.
		N	171	171

\*\* . The correlation is significant at the 0.01 level (two-sided).

As can be seen in Table 6, according to Spearman's Rho correlation coefficient, there is a relationship between the use of *Google Drive* and the writing process, this relationship being of moderate magnitude (.539\*\*) and positive trend. Likewise, the p value is less than the degree of statistical significance ( $p = .000 < 0.05$ ). In this sense, the null hypothesis is rejected and the alternative hypothesis is accepted: There is a direct and significant relationship between the perception of the use of Google Drive and the improvement in the writing process in students of a national university, 2023.

**Table 7-** Correlation between the variables Google Drive and Review

			Google Drive	Revision
<b>Spearman's Rho</b>	Google Drive	Correlation coefficient	1,000	.414**
		Sig. (bilateral)	.	,000
		N	171	171
	Revision	Correlation coefficient	.414**	1,000
		Sig. (bilateral)	,000	.
		N	171	171

\*\* . The correlation is significant at the 0.01 level (two-sided).

As can be seen in Table 7, according to Spearman's Rho correlation coefficient, there is a relationship between the use of *Google Drive* and the review, this relationship being of moderate magnitude (.414\*\*) and with a positive trend. Likewise, the p value is less than the degree of statistical significance ( $p = .000 < 0.05$ ). In this sense, the null hypothesis is rejected and the alternative hypothesis is accepted: There is a direct and significant relationship between the perception of the use of Google Drive and the improvement in revision in students of a national university, 2023.

## DISCUSSION

At the beginning of the quarantine, as a result of the pandemic, students began to work virtually. Although the *Google Drive tool existed*, it was not well known by the majority of students; However, in this remote modality, its use became essential to promote teamwork, especially for writing texts. This tool facilitated textual production from planning, writing to editing (Meza et al., 2021). In other words, when the document is shared between them, through a link, it improves collaborative work; That is, interaction strengthens communication. Also, from anywhere you can edit, modify. This tool works on all types of devices and does not require the internet (Álvarez et al., 2018 and López and Bernal, 2018).

This tool strengthens the interaction between students because when communicating they express their intentionality about what to write and for whom to write in the production of their text with a high interest in valuation in the social framework (Almidón et al., 2021). Consequently, students improve the outline of their text through collaborative work; Well, communication between them from any geographical space and at the moment becomes dynamic with *Google Drive*. On the other hand, when sharing the organization of their textual production, the student not only plans, but also elaborates the organization of their academic text through a mental representation (Casanny, 2003). And this is possible thanks to interaction. However, it is necessary for the teacher to present several alternatives to the student so as not to limit creativity (Dijk and Kintsch, 1983; Estévez et al., 2021),

*Google drive* is a collaboration tool that allows students to write their texts as a group. Likewise, as Casanny (2003) states, the text presents three fundamental properties: cohesion, coherence and adequacy. These basic properties of the text promote collaborative methodology and, consequently, collaborative work through the collaborative web (Google drive). That is, the responsibility for learning lies in the commitment of each of the students; since each member contributes not only in their assigned part, but also in supporting the work of the other members (Álvarez, 2018).

Finally, the final review of an academic work consists of correcting not only the academic content (it must meet the objectives set at the beginning of writing the text), but also correcting errors in regulations, language correction, lexical richness, and syntax, among other formal aspects (Almidón et al., 2021). This stage is very important because it is the result of collaborative work by a group, whose members have contributed to the writing of the text.

Spearman's Rho correlation coefficient indicates that the relationship between the use of Google Drive and the production of written texts is of moderate magnitude (.556\*\*) and has a positive trend. Likewise, the p value is less than the degree of statistical significance ( $p = .000 < 0.05$ ). In other words, there is a direct and significant relationship between the perception of the use of Google Drive and the improvement in the production of written texts in students of a national university, 2023.

There is a direct and significant relationship between the perception in the use of Google drive and the improvement in the analysis of the communication situation in the students of a national university, 2023. The statistics of this study show the high perception of Google drive and the analysis of the communicative situation, textual organization, the writing process and revision of the text.

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#### **Conflict of interests:**

The authors declare not to have any interest conflicts.

#### **Authors' contribution:**

The authors participated in the design, analysis of the documents and writing of the work.

#### **Cite as**

Caballero Montero, BH, Pachas Velez , F., Caballero Montero, VE, Silarayan Ruiz, LA (2023). Google drive and text production in students of a national university, 2023. *Mendive. Education Magazine*, 21(4), e3641  
<https://mendive.upr.edu.cu/index.php/MendiveUPR/article/view/3641>



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