INCORPORATION OF GOOGLE DOCS IN COMPOSITION CLASSES

TO FOSTER COLLABORATION: AN ANALYSIS OF GOOGLE

DOCS' AFFORDANCES

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ABSTRACT

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Google Docs is a web-based word-processing application known for its collaborative features and accessibility. It allows for real-time document creation, editing, and sharing among users, making it suitable for group work, peer review, and providing feedback. However, there are limitations to its formatting options, which may not fully support specialized formatting needs for assignments such as APA or MLA styles. Accessibility features could also be improved, particularly in creating more accessible tables and adding closed captioning to videos for users with disabilities. The commenting system can be clunky and difficult to follow, and the revision history feature can be challenging to navigate. Additionally, tracking changes and revisions, especially in large documents, can be improved to facilitate the evaluation of student work and group projects. Google Docs could also enhance mobile optimization features for smaller screens and integrate with plagiarism detection software to address plagiarism concerns. Furthermore, improving support for non-English languages and providing guidance to students unfamiliar with the platform can enhance its effectiveness in college-level composition classes.

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Introduction

The growth of technology has transformed the way individuals and organizations communicate, work, and learn. Collaboration has become an essential aspect of many professional and educational endeavors, and online tools and platforms have enabled teams to work together more effectively and efficiently than ever before. Google Docs, for example, has revolutionized the way people collaborate on documents, spreadsheets, and presentations. With this platform, teams can edit and review documents in real-time, share feedback and suggestions, and work on the same project from different locations. Furthermore, the COVID-19 pandemic has accelerated the need for online collaboration tools as remote work and virtual collaboration have become the new norm. Many organizations have had to adjust to a new way of working, and online tools have been instrumental in facilitating communication and collaboration.

Google Docs presents a valuable opportunity for collaborative writing in the context of composition classes. Despite the recognition of the benefits of collaborative writing, previous research has primarily focused on in-person collaborative writing or digital collaborative writing on other platforms, leaving a gap in understanding how to use Google Docs for this purpose. An in-depth analysis of the affordances of Google Docs for collaborative writing in the context of composition classes is essential. This analysis could offer insights into the features of Google Docs that support collaboration and how instructors can use these features to optimize the writing process.

Conducting research on the usability of Google Docs affordances in composition classes can help to improve teaching effectiveness by providing instructors with a deeper understanding of how students interact with the platform, identifying areas where students

may need additional support or guidance, and enabling instructors to develop targeted strategies for improving student learning outcomes. This research can also enhance student learning by identifying features of the platform that are particularly useful for writing assignments, offering insights into how students can work collaboratively and receive effective feedback on their work, and providing students with a more streamlined and efficient writing process. Moreover, research on the usability of Google Docs can inform curriculum development by helping to identify which features of the platform are most relevant to specific writing assignments or courses, ensuring that instructional materials are aligned with student needs and learning outcomes. Finally, conducting research on the usability of Google Docs can contribute to scholarship by adding to our collective knowledge of the role that digital tools play in writing pedagogy, generating new insights into best practices for integrating technology into the classroom, and promoting ongoing discussion and debate among educators and scholars in the field.

Collaboration vs. Cooperation

Cooperation and collaboration have been defined by many researchers. While we might observe the interchangeable use of these terms, making the line between cooperation and collaboration is crucial (Dillenbourg et al., 1995). Collaborative writing is built upon collaborative learning. Through collaborative learning, class time is spent in small groups where students may freely exchange ideas and information (Kirschner, 2001). Based on such a definition, collaborative writing is described as a task in which two or more individuals work together throughout the writing process to generate a finished document that is equally owned by all participants (Storch, 2018). In other words, the members of a group engaged in collaborative writing should not, for example,

break apart the sections of a text, work on those parts separately, and then try to put the parts together to produce the final piece (Storch, 2018).

On the other hand, cooperative work may be defined as a task that is completed by splitting it among participants, with the expectation that "each person is responsible for a portion of the problem solving" (Roschelle & Teasley, 1995). Therefore, it is important to emphasize the primary distinction between cooperation and collaboration. Collaborative assignments require students to interact, discuss, consider other members' opinions and share their work while cooperative activities require students to work on given sections of a project individually and then share the finished product with other group members. It is essential to emphasize the theory underlying the concept of collaborative work in order to grasp its significance.

Collaboration and Zone of Proximal Development

In 1978, Lev Vygotsky's theory of the Zone of Proximal Development (ZPD) gave rise to the idea of collaboration. According to Vygotsky (1978), ZPD represents "the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem-solving under adult guidance or in collaboration with more capable peers" (p. 86). This theory suggests that collaboration is a way for learners to bridge the gap between what they already know and what they still need to learn. According to this theory, people learn and absorb new ideas and abilities via collaborative projects by working with more proficient people.

The abilities of the people working together in a group are likely to range widely. This means everyone in a certain group will bring a different ZPD to rely on when

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achieving the task's result. Therefore, people who collaborate may be of assistance to others who do not possess the same qualities and capabilities as themselves. This idea could be linked to collaborative writing tasks since, in such tasks, students might be in varying stages of their writing abilities. So, each group member might benefit others who lack the skills that a certain member excels at. There is research informing us about the effects of collaboration on learners' abilities.

Involvement in collaborative writing projects has been shown to have several positive effects on students' academic performance. For example, consider the case of motivation. It was shown that students are more motivated to write as a result of the interactions they have with the other members of their group throughout the writing process (Chen, 2021). One of the participants of Chen's study expressed, "I learned new things from Amar. We discussed together to fix mistakes … I think teaching my partner is more fun than reviewing the knowledge myself.
It's more useful for me to remember things well."

We might understand that the motivation and goal of this participant relate to learning from helping as well as getting assistance (Chen, 2021). This understanding is linked to the idea of ZPD, which was discussed and elaborated on earlier. It is expected that collaborators would learn from other participants and share their knowledge in order to proceed in the stages of ZPD. This is particularly true during the phases of revising and editing their work when they can obtain feedback from their peers and apply it to their pieces (Dobao, 2012; Ong & Maarof, 2013). While the advantages of in-person group writing exercises have been covered at length, it is worth noting that students may

struggle to engage in meaningful collaboration due to time constraints during class;

however, online collaboration has the potential to mitigate this barrier

(Hewitt & Scardamalia, 1998).

Writing collaboratively in digital settings

Student reactions to the option of doing collaborative assignments outside of class

time and space in virtual environments may vary. Therefore, determining what constitutes

"computer-based writing activities" is crucial for analyzing these effects. Computer-

mediated writing activities are conducted in a digital setting where all participants

actively engage in the negotiation, composition, and revision of a shared final work (Li,

2018). Recently, there has been a lot of focus on creating technological resources that can

facilitate communication and teamwork. Online applications such as Wiki, Google Docs,

Etherpad, Quip, and Dropbox are only a few collaborative writing apps. Research has

made use of these writing tools to examine the effects that they have on students' learning

and writing instruction.

Students who participated in online collaborative writing reported greater

fluency and accuracy in their composing (Elola & Oskoz, 2010), and those who did so

said they appreciated having the chance to receive and provide feedback to their

classmates (Ware & O'Dowd, 2008). Rahimi and Fathi (2021) found out that students

can improve their writing level, writing self-efficacy, and writing self-regulation by

getting involved in Wiki-based instruction. Furthermore, learners who participated in

collaborative writing activities improved in a variety of abilities, including higher-level

thinking, critical thinking, and academic achievement, according to the findings of the

researchers (Neumann & McDonough, 2015; Tar, Varga, & Wiwczaroski, 2009; Wong,

Lin, Sung, & Lin, 2011). This underscores the importance of providing opportunities for learners to work together in digital writing classrooms, and the use of tools like Google Docs can facilitate this collaboration.

Google Docs

Google Docs, a web-based productivity and cloud storage platform, was initially made available to the public in July 2009. Users can access this platform via a web browser. In April 2012, Google Docs was relocated to Google Drive. The program includes a word processor, a spreadsheet, a presentation designer, and a form developer. In addition to creating files, users can also save them on the site. The switch from PC/LAN technology to cloud storage has allowed people to view their documents on any Internet-connected device, making Google Docs a more versatile platform for document creation and distribution. As a result, Google Docs has become a more adaptable platform for document generation and delivery, as noted by Firth and Mesureur (2010).

The platform allows users to create documents and invite others to collaborate on them by registering. There is also an option for "viewers," who can only read the already-existing documents. The feature of allowing group members to make edits to a shared document is a significant advantage of Google Docs as a platform for digital collaboration. Any changes made to a document are automatically saved and uploaded to the cloud. Additionally, all previous versions of the document are kept, allowing users to track the document's evolution over time. Furthermore, there are tools available to compare different versions of the document, which can be added to Google Docs through its Add-on option.

Dekeyser and Watson (2006) state that Google Docs is a valuable tool for creating documents and facilitating computer-mediated conversations. They identify several features of Google Docs that make it a practical, user-friendly, and productive collaboration technology. These features include its lightweight nature, which only requires a web browser to create a Google account; its ease of use, which does not require advanced computer skills and allows for easy collaboration with others; and the effectiveness of its editing option, which enables multiple editors to make changes to a document simultaneously.

However, as a collaborative technology, Google Docs also has some limitations that users should be aware of. These limitations, as identified by Dekeyser and Watson (2006) and Firth and Mesureur (2010), include the following:

- Limitations in formatting: Converting Microsoft Office documents to Google Docs can result in the loss of structured components such as fonts, charts, tables, and slide transitions and animations, due to Google Docs' limited formatting options.

- Real-time collaboration: While the software supports simultaneous editing by multiple users, updates to the content may experience delays or access issues.

- Text-based only: Google Docs is limited to text-based projects and does not support collaboration on graphics or other forms of information.

The influence of Google Docs on learners

Google Docs has recently gained the attention of educators and researchers, who have conducted studies to explore its potential benefits. According to Neumann and Kopcha (2019), Google Docs can be effective in peer and instructor reviews due to its

ability to facilitate in-depth, real-time threaded conversations. Another recent study by Nguyen and Nguyen (2022) found that students can improve their writing skills and output by using Google Docs. Based on the results of their research, students found Google Docs helpful in verifying their work for errors in grammar and spelling, as well as allowing them to focus more on the writing process itself. Furthermore, Wahyuni (2018) found that collaborative activities through Google Docs can improve students' critical thinking skills. Collaborative tasks on Google Docs help students develop cognitive, affective, and behavioral competencies, which ultimately maximize their ability to analyze and think logically. According to Wahyuni's analysis, this results in students who possess critical thinking skills and are capable of making proper considerations and decisions to face future challenges. Overall, the use of Google Docs in classrooms and collaborative environments has the potential to positively impact the future of students by facilitating effective communication and improving their critical thinking and writing skills.

Research into collaborative writing through online tools such as Google Docs and Wiki suggests that the capacity to work well in groups and with people may have educational benefits. However, there are some obstacles that should be taken into consideration. Educators confront challenges such as students working at different rates (Strobl, 2014), having diverse levels of linguistic proficiency (Li & Zhu, 2017), being anxious about their work since they feel they cannot take credit for it (Bradley et al., 2010), and students being either too dominant or passive (Meishar-Tal & Gorsky, 2010). The evidence shows that incorporating such a tool could be more complex than it seems to be.

Google Docs Affordances Analysis

Google Docs is a useful software to encourage collaborative writing by presenting real-time functionality that can assist in recording modifications as well as providing responses right away. This tool displays revision history, which enhances individual responsibility by being able to view who has attributed how much and at what time (Perry & Rangu, 2020). In addition, the add-on option might help focus better on the writing process with no need to escape the document. Google Docs enables group members to start a conversation through chat which could support members to comment, consult, demonstrate and suggest new ideas. However, due to the digital structure of Google Docs, which enables each participant to modify the doc on their own, some contributors may feel more at ease with not completing the task on time or not participating as much as they are required to (Bradley et al., 2010). Although the irresponsibility of some members could be due to the lack of teamwork skills, the nature of this app may cause more work for other collaborators by providing such an option. Additionally, it is impossible for collaboration to be accomplished using digital tools if it is limited by an absence of technological capabilities on the part of either the learners or the instructors. The strategies applied by instructors when using Google Docs might help enhance the efficiency of this app. Therefore, we will look closely at this tool's affordances to highlight some vital factors and strategies.

Sharing

One of the features of Google Docs is its shareability. People can create a Google Doc and share it with others, limiting their access to view, comment or edit. This feature of Google Docs provides a space for collaboration on writing with other people. By

collaboration, we mean working, drafting, brainstorming, editing, revising, and producing a text with more than one person involved in the document. For example, students in a writing class can collaborate to accomplish a writing task. Studies have been conducted to find out the attitudes students hold toward writing in Google Docs, considering sharing features of Google Docs. Morales and Collins (2007) conducted a study in a psychology class to see what students feel about utilizing Google Docs in their writing. According to this study, 36% of students mentioned that Google Docs makes collaboration easier as it lets the creator share the document with others. Only 4% of the participants preferred in-person collaboration. They collected this data by asking students to answer the question "Describe Your Experience Using Google Docs for Group Collaboration." Although their study showed that Google Docs might not affect learning, they found that it influenced "the ways students collaborated." For instance, in their research, learners argued that in Google Docs, "work can be done simultaneously by multiple people" and "Information can be traded easily." It is clear that Google Docs has made sharing faster and easier (Morales & Collins, 2007).

On the other hand, consideration should be given to a variety of student traits that might contribute to a lack of interest in sharing knowledge. For example, there is also the argument that some students might not feel at ease by sharing their pieces. Rick and Guzdial (2006) conducted a study in 2006 that argued that some students might be resistant to sharing their work in online settings due to cultural backgrounds. When students were asked to explain the reason they didn't want to collaborate, they said that they "didn't want to get railed" and that "with the curve, it is better when your peers do badly." They found that even when the class is not curved and the instructors emphasize

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this fact, the students tend to perceive that the class is curved. The students in English composition courses were more open to working together on projects than those in Math and Chemistry (Rick and Guzdial 2006). This study has the potential to inform instructors' decision-making about the use of group projects in the classroom. There is no question that taking into account the different cultures, areas of study, and characteristics of the learners would be advantageous.

Permanent version history

Due to the online nature of digital tools, some members might feel more comfortable with not collaborating as much as they are required to, and this matter might put other members under pressure. Furthermore, one of the difficulties associated with collaborative composing, regardless of being online or in-person, is the anxiety that students would be unable to take credit for their work (Bradley et al., 2010). Google Docs provides a feature which is called version history. By clicking on the version history of a document on Google Docs, participants are able to see the earlier versions as well as the collaborators' modifications on the document. But what does this feature mean to collaboration? Earlier, we defined collaboration as an activity in which students are involved in the process of writing, from the stage of brainstorming to producing the final piece (Storch, 2018). When collaboration happens in a digital space, it could be hard for instructors to identify the amount of writing each group member did in order to improve the piece. In a composition class, for example, instructors might use this feature to evaluate students' collaboration. This feature can give a better sense of accountability to students as well, and those people who are not contributing to the assignment and putting lots of responsibility on other peoples' shoulders would be identified (Perry and Rangu,

2020). It might be assumed that students work better in groups if they know that they are accountable for what they are producing. However, what is actually happening in real life might not be as ideal as the definition of collaboration.

While it is preferred that all group members get involved in all stages of the writing process, it is still doubtful if collaboration is happening as ideally as its meaning in real life. Collaboration might take place in different ways and be defined differently. For example, three students working on a writing assignment that requires them to write an argumentative essay on a specific topic might take different roles in accomplishing the task. One might be responsible for finding credible sources to support their arguments, while others might write the paper or revise it after getting feedback from peers or the instructor. Therefore, the way and amount of contribution by each member may not be the same as others. Irshad (2022) analyzed the writings written by collaborative groups in Google Docs to understand if the modification made to the final piece is equal. According to their findings, while the pieces show that students' ideas are engaged with one another, the contribution is not equal in any of the groups. In other words, each group has different levels of interaction, which could indicate how collaboration is done in real life and how complex it could be. Lowie and Verspoor (2018) agree with this idea by mentioning that every individual's learning path in an online setting is unique due to the complexity of online collaboration. Therefore, instructors might not be able to get all group members to work equally on all stages of the writing process. Although it is possible to evaluate the contribution made by each student to a google doc, this tool might not necessarily improve collaboration skills since collaboration could be perceived and undertaken in different ways.

Real-time collaboration

Google Docs lets its users see who is online and currently adding content to the document. The tool enables online chatting when working on an assignment. Although this feature might tell us who is currently adding content to a doc, some issues come with its benefits. For example, there could be a screen delay if there are many collaborators, versions, and comments. Such delay might exhaust students while working together and distract them. According to Perry and Rang (2020), such issues could be avoided by "1) reviewing the document and accepting or rejecting all comments; 2) making a copy, but not selecting the "Copy comments and suggestions" box." A lack of revision history means this fresh copy could be quicker to run and more responsive in its many forms of user interaction. It is important to highlight the importance of instructor guidelines here, as some students might not be familiar with these issues. Therefore, specific instructions should be given in order to avoid confusion.

Defining Usability

Before analyzing the usability of Google Documents, it is essential to establish a clear definition of the term "usability" to ensure consistency in the evaluation process. Khamis (2009) defines usability as the user's ability to engage with a platform efficiently and effectively, enabling them to complete instructional activities with fewer mistakes. Similarly, Alon and Herath (2014) describe usability as the user's ability to find content or fulfill their needs on the platform. Nielsen (2012) provides a more comprehensive definition of usability, which comprises five quality components: learnability, efficiency, memorability, errors, and satisfaction. Learnability refers to how easily users can perform basic tasks when encountering the design for the first time.

Efficiency pertains to how quickly users can perform tasks once they have learned the design. Memorability relates to how easily users can reestablish proficiency when returning to the design after not using it for a period of time. Errors refer to the number and severity of mistakes users make, as well as how easily they can recover from these errors. Finally, satisfaction refers to how pleasant it is for users to use the design. In the context of web-based applications like Google Docs, it is crucial to understand why usability matters. Nielsen (2012) emphasizes that usability is a critical factor for success on the web, as users are less likely to remain on a website that is difficult to navigate. Therefore, it is important to analyze the usability of the affordances of Google Docs, particularly in collaborative-based composition classes. Given that Google Docs is a popular tool for collaborative writing, its usability plays a significant role in facilitating communication and collaboration among students.

Usability An effective analysis of Google Docs' usability in collaborative-based composition classes should take into account various factors that affect usability, including interface design, ease of use, and accessibility. For example, the interface design of Google Docs should be intuitive and easy to navigate, allowing users to find and use the features they need without difficulty. Additionally, the tool's ease of use should be evaluated, considering factors such as the speed and efficiency of the platform, as well as the level of technical expertise required to use it effectively. Finally, accessibility is another critical factor in the usability of Google Docs, as it determines whether users can access the platform regardless of their physical or cognitive abilities.

Overall, analyzing the usability of Google Docs in collaborative-based composition classes is critical for ensuring that the tool supports effective

communication and collaboration among students. By understanding the various factors

that affect usability, educators can evaluate the effectiveness of Google Docs as a

collaborative writing tool and make informed decisions about its use in the classroom.

Usability analysis of Google Docs

One of the affordances of Google Docs is its accessibility. Google Docs can be

accessed from anywhere with an internet connection, which makes it convenient for

students who may need to work from home or outside of class hours. Additionally, since

it is web-based, there is no need to install software on individual devices, which can be a

significant advantage for students who may not have access to a computer or software at

home. There are a few areas where its features could be improved to better support

student learning and collaboration in writing classes. One potential limitation of Google

Docs is its limited formatting options. While Google Docs offers basic formatting

features, such as font styles, spacing, and alignment, it may not be sufficient for more

complex formatting needs. For example, some students may need to use specialized

formatting for their assignments, such as APA or MLA style, which may not be fully

supported by Google Docs. Providing additional formatting options, such as headers and

footers, page numbers, and tables, would make Google Docs more useful for a wider

range of assignments and activities.

Google Docs currently offers some accessibility features, such as the ability to

add alt text to images or to enable screen reader support. However, there is still room for

improvement in terms of accessibility, such as the ability to create more accessible tables

or to add closed captioning to videos. Also, support for users with motor impairments or

color vision deficiencies would provide more support for students. Google could work to improve its accessibility features to make the platform more inclusive for all students.

Additionally, another issue with Google Docs is that its commenting system can be clunky and difficult to use, especially when multiple users are commenting on the same document. The comment threads can become tangled and difficult to follow, making it hard for students to keep track of feedback and suggestions from their peers and instructors. To improve this feature, Google could consider implementing a more streamlined commenting system, with options for sorting and filtering comments, as well as the ability to tag or assign comments to specific users.

Another area where Google Docs could be improved is in its revision history feature. While this feature allows users to view and revert to previous versions of a document, it can be challenging to navigate, especially for students who are not familiar with the platform. Google could improve this feature by making it more user-friendly, with clearer visual cues and more intuitive navigation options.

Google Docs could be improved by providing more robust tools for tracking changes and revisions. While the platform does allow users to view and compare different versions of a document, it can be difficult to identify specific changes or revisions that have been made. Google could consider adding more advanced tracking features, such as the ability to highlight or mark specific changes within a document, or to compare different versions of a document side-by-side.

Another issue with Google Docs is the lack of advanced formatting options when it comes to creating tables. While the platform allows users to create simple tables, more advanced options, such as merging or splitting cells or adjusting row height, can be

difficult to find and use. This can be a hindrance for students who need to create more complex tables for research projects or reports. Google could consider adding more advanced table formatting options to make it easier for students to create and format tables within their documents.

Furthermore, while Google Docs does have an offline mode, it can be unreliable, and users may experience syncing issues when they switch between online and offline modes. This can be frustrating for students who may not always have a reliable internet connection or who prefer to work on their documents offline. Google could consider improving the offline mode and addressing the syncing issues to make it a more reliable feature for users.

While Google Docs does offer a range of collaboration features, such as real-time editing and commenting, it can be challenging to track individual contributions within a document. This can make it difficult for instructors to evaluate student work or for students to receive credit for their contributions to group projects. Google could consider adding more advanced tracking features, such as the ability to assign specific sections or tasks within a document to individual users, or to track changes and revisions on a per-user basis.

Google Docs is a cloud-based platform that allows users to access their documents from any device with an internet connection, but it can be challenging for users to work with large or complex documents on smaller screens, such as smartphones or tablets. Google could consider adding more advanced mobile optimization features, such as the ability to customize the user interface or to optimize document formatting for smaller screens, to make it easier for users to work with their documents on the go.

Plagiarism is a serious issue in academic writing, and it can be challenging for instructors to detect instances of plagiarism when students are working on collaborative documents. Google could consider integrating with plagiarism detection software, such as Turnitin or Grammarly, to make it easier for instructors to detect instances of plagiarism and for students to avoid accidentally plagiarizing others' work.

While Google Docs does offer support for a range of languages, some users may find that the platform is not as user-friendly or functional in non-English languages. Google could consider improving its support for non-English languages, such as by adding more language-specific formatting options or improving the accuracy of its translation features.

Suggestions to teachers

While Google Docs is widely used in college-level composition classes, it is important to note that not all students may be familiar with the platform. To ensure that all students can use Google Docs effectively, teachers may need to provide training and resources to help students learn how to use the platform's various features. This could include providing video tutorials, step-by-step guides, and in-class demonstrations to help students get up to speed.

Moreover, as Google Docs is a cloud-based platform, it can be prone to technical issues such as slow loading times, internet connectivity problems, and syncing errors. These issues can be frustrating for both teachers and students, especially when working on collaborative projects. To minimize these issues, teachers may need to provide guidelines and best practices for using Google Docs effectively. For example, they could encourage students to save their work frequently, use the "offline mode" feature when

internet connectivity is unreliable, and avoid working on the same document

simultaneously to prevent syncing errors.

Another consideration is privacy and security. While Google Docs is generally

considered to be a secure platform, teachers may need to take extra precautions to protect

student data and ensure student privacy. This could include using a secure internet

connection when accessing Google Docs, setting up password-protected accounts for

students, and carefully managing access to shared documents.

In addition, while Google Docs is a powerful tool for facilitating collaborative

writing and peer review activities, it may not be the best choice for every writing

assignment. For instance, some writing assignments may require specific formatting or

design elements that are difficult to achieve in Google Docs. In such cases, teachers may

need to consider using other platforms or software tools to better meet the needs of the

assignment.

Writing via Google Docs

College-level writing classes are an essential component of higher education that

aims to develop students' writing skills and prepare them for academic and professional

pursuits. The primary goal of these courses is to help students become effective writers

who can communicate their ideas clearly, logically, and persuasively. One of the most

common outcomes of college-level writing classes is to develop critical thinking skills.

Critical thinking involves the ability to analyze, synthesize, and evaluate information,

ideas, and arguments in a systematic and logical manner. Critical thinkers are able to

identify and assess the strengths and weaknesses of arguments, make informed

judgments, and communicate their findings effectively. Effective writing is a key

component of critical thinking. Writing is not just about conveying information; it is also about creating and communicating meaning. Good writing requires a thorough understanding of the topic, careful analysis and synthesis of information, and thoughtful consideration of the audience's needs and expectations.

To achieve the outcome of critical thinking, instructors can design activities that encourage collaborative learning and the use of technology. Google Docs, a cloud-based word-processing platform, is an excellent tool for promoting collaborative writing and critical thinking in college-level writing classes. The collaborative features of Google Docs enable students to work together and learn from each other's perspectives. By sharing ideas and feedback, students can develop a deeper understanding of the topic and the writing process. In addition, Google Docs can foster critical thinking in several stages of the writing process.

Now, let's consider an activity that reflects the use of Google Docs in different stages of the writing process. I am going to show you how this tool could be useful to help students think critically. The activity involves having students work in groups to write a persuasive essay on a controversial topic. To begin, students are randomly assigned to groups and given a list of possible topics. They are then instructed to conduct research on their topic and use Google Docs to collaboratively write their essay.

At the outset, the group members can use Google Docs to brainstorm and outline their ideas. They can use the commenting feature to give feedback on each other's ideas and suggest revisions. As they begin to write the essay, they can use the real-time collaboration feature to work together on the same document, adding their own ideas and

refining each other's arguments. Throughout the process, the students can use the revision history feature to track changes made to the document and reflect on how their ideas have developed and changed over time. They can also use the chat feature to communicate in real-time as they work on the document. Finally, as they complete the essay, the students can use Google Docs' formatting tools to organize their thoughts and arguments in a clear and logical manner. They can use headings, bullet points, and numbered lists to structure the essay and make it easy to read.

Google Docs provides a powerful platform for facilitating collaborative writing and critical thinking in college-level writing courses. By enabling students to work together in real-time and offer feedback and suggestions to one another, Google Docs fosters collaboration and engagement, and allows students to develop critical thinking skills by articulating their ideas clearly and logically. With its affordances such as commenting, suggesting mode, and revision history, Google Docs is an excellent tool for encouraging students to work together, reflect on their writing process, and produce high-quality written work. As such, instructors should consider incorporating Google Docs and similar collaborative writing platforms into their writing assignments and classroom activities to help students achieve the most common outcome of college-level writing courses: developing strong critical thinking skills.

Conclusion

As technology continues to transform the landscape of education, it is essential for educators to examine the effectiveness of digital tools such as Google Docs in the classroom. While Google Docs has the potential to enhance collaboration,

communication, and writing skills, it cannot replace effective teaching practices. Teachers must still provide clear guidance, effective feedback, and opportunities for students to develop critical thinking and analysis skills. Google Docs is a valuable tool for teachers in college-level composition classes, but its effectiveness depends on how well it is integrated into the classroom. Teachers must carefully consider the usability and affordances of the platform to ensure that it is used effectively. This includes providing training and resources to students, managing technical issues, and protecting student privacy. By doing so, teachers can make the most of Google Docs as a tool for teaching and learning.

Google Docs can support the activities necessary for writing and learning in college-level composition classes, but it is important for teachers to set guidelines for online etiquette and communication to ensure that students stay focused on the assignment at hand. This can include establishing clear expectations for response times and limiting off-topic conversations. Additionally, teachers must ensure that all students are actively engaged in the writing process, providing guidance on how to effectively collaborate and communicate with group members. while Google Docs is a valuable tool for college-level composition classes, it should not be viewed as a replacement for effective teaching practices. Instead, teachers should use it thoughtfully, taking into account its strengths and limitations, and ensuring that it is used effectively to support student learning. By doing so, teachers can harness the power of Google Docs to enhance the writing and learning experience for their students. Ultimately, the success of using Google Docs in the classroom depends on how effectively it is integrated into the overall teaching strategy.

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