The Importance of Scheduling Tools and Their Impact on Students' Time Management

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Abstract

Time management is an important skill and the use of electronic scheduling tools can aid in time management through easy scheduling, sorting, and integration. In this study, a survey was conducted to examine how college students manage their time and what features and tasks they use scheduling apps for. It was found that many students use the Google Calendar app as their primary (and perhaps only) scheduling tool, and value many features, including monthly, weekly, and daily views, and mobile and desktop apps. These results are similar to those of other studies, besides a few notable differences. The participants of this study were more likely to use only one scheduling app, whereas those in other studies were more likely to use multiple. Also, participants in this study value the mobile app feature more than those in other studies. Additionally, this study explores the specific tasks that students use scheduling tools for, which has not been extensively researched. This research can aid in the development of a more efficient scheduling app in the future by examining the features that people value in existing scheduling apps.

Introduction

With the rise of computers, electronic time management and scheduling tools have begun to replace paper calendars. These tools have many different features to help people organize events, but gaps in features and collaboration continue to cause problems.

Time management is defined as the skills people need to organize their time [1, 2], including monitoring their schedules and obligations to prioritize important tasks [3], time allocation [2], and awareness of time [1]. Time management helps people balance their time between work and life [3, 1] and create goals for the future [1].

Time management is important for both students and working professionals [2, 3]. Students often have to balance school, work, and extracurriculars in an environment that provides little structure. Working professionals have to balance individual obligations with meetings throughout the day.

Many studies have reported the benefits of good time management in relation to academic success [1, 3, 4]. Students who are better at time management were found to have higher cumulative GPAs than other students [1]. Additionally, graduate students with good time management skills were found to be more motivated, feel more successful, and feel more competent than those who rated themselves lower in terms of time management [3].

Effective time management also can benefit people by reducing stress and anxiety [1, 2, 4]. Time management skills like being aware of time, tasks that must be done, and creating goals may lower anxiety for students [1]. Besides reducing stress, good time management can also increase physical health because students are able to balance work, sleep, exercise, and free time [1].

Despite the positive effects of good time management skills, many people still struggle with balancing their obligations [1, 3]. Scheduling apps are therefore an important tool to utilize. Working professionals often use scheduling apps and 63% of them say that scheduling apps are "very important" [4]. Scheduling apps can aid in visualizing tasks, forming a routine, and reducing procrastination, which reduces stress [4]. However, calendar apps can cause stress if they are mobile because of access to other distracting apps like social media [4].

There is an abundance of research on time management and the benefits of scheduling tools, but less about the specific apps and features that people find effective. This study aims to answer the research questions "What tools do college students use to manage their time?" and "What tasks and features do college students use their time management apps for?"

College students are an important demographic to study because they have a diverse range of obligations including school, work, and extracurriculars. The outcomes of this study are applicable to discovering the specific features and tasks that college students use scheduling apps for, which will lead to the development of better time management apps in the future.

Methods

To gather data about how college students view time management and use scheduling tools, a survey was conducted. The survey was opened on March 10th, 2023 and closed on March 25th, 2023, resulting in data gathered across 15 days.

Participants

The survey participants consisted of 46 people who were recruited through posts on Instagram Story and Discord asking for volunteers to complete the survey. The survey was accessible through a link to an anonymous electronic Google Forms survey. Based on recruitment tactics, the expected demographic is college-aged students.

Instruments and Materials

The study was conducted through a five-question survey created on Google Forms, an electronic survey tool that allows respondents to answer via a link. Two of the questions asked respondents about their time management skills, with one asking about their time management in general and the other asking about their time management relating to their use of scheduling tools. These questions were in Yes/No format and are designed to show whether or not there is a need for scheduling tools.

The other three questions asked respondents about the current scheduling tools they use, the features they value in scheduling tools, and the tasks they frequently schedule. Knowledge of the most popular scheduling tools can show which ones people find the most effective. The features and tasks used in scheduling tools also can show what design would be the most helpful for time management. These questions are in a checklist format so that respondents can provide multiple responses on what they use and value.

Procedure

First, questions were designed to collect data on how people view time management and utilize scheduling tools. The questions were then published in an electronic Google Forms survey. Next, a link leading to the survey was created in order to easily share and access the survey. The link was then posted on social media to gather responses. After reaching a sufficient number of responses, the survey was closed and the data was analyzed.
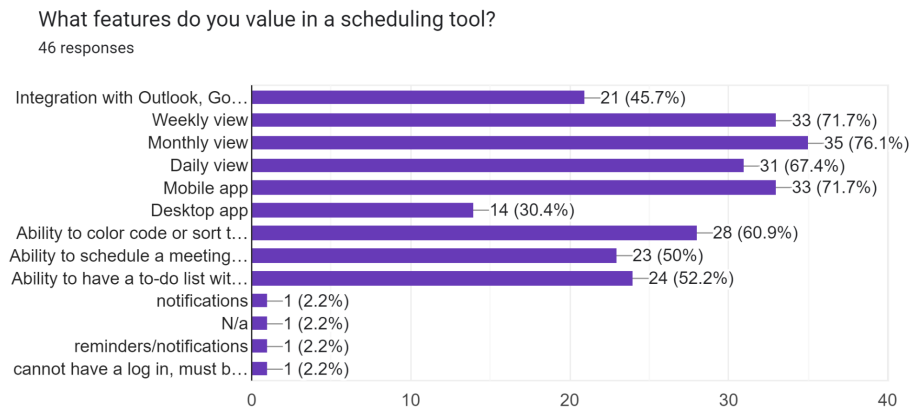
Results

56.5% of students responded "No" to the question "Do you consider yourself to be good at time management. 41.3% of respondents responded "Yes" to the question "Do you ever miss important deadlines because you missed it in a particular calendar or scheduling app?"

Figure 1: *Bar chart of most popular scheduling tools*

What scheduling apps/tools do you currently use to plan ahead?
46 responses
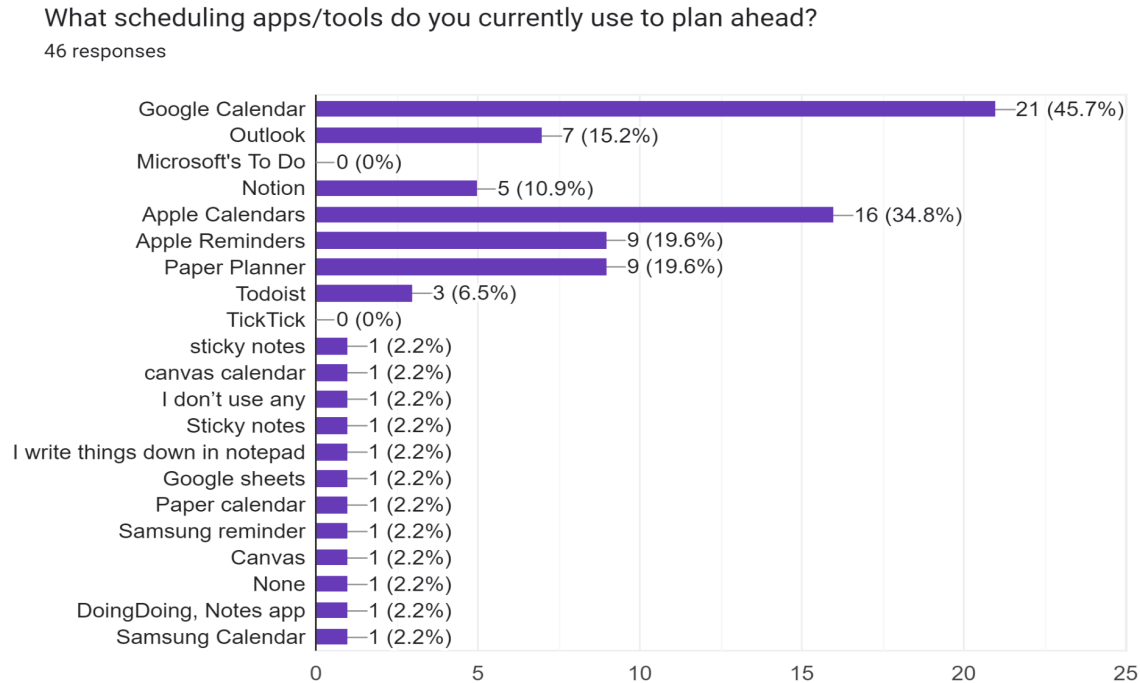
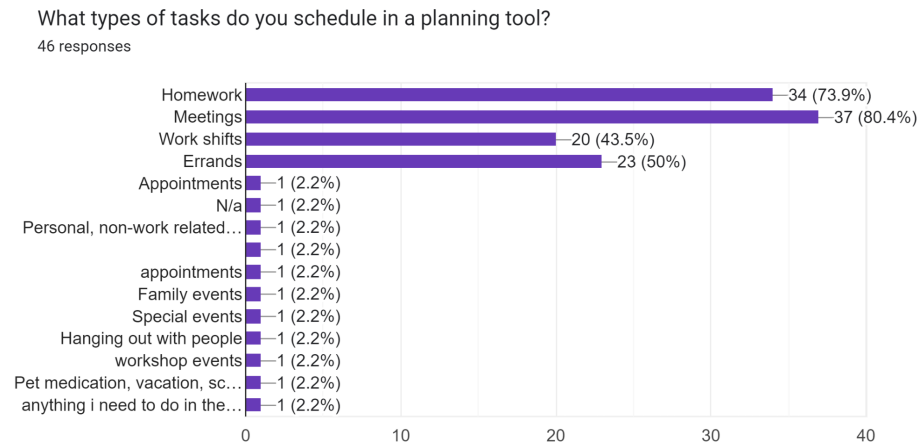The two most popular scheduling apps or tools were Google Calendar and Apple Calendar, with 45.7% and 34.8% of respondents indicating their use of each tool respectively [Fig 1]. Also, a majority of respondents say that they use only one scheduling tool, although the survey question allowed respondents to check multiple. Apple Reminders (19.6%), a paper planner (19.6%), and Outlook (15.2%) were the next most popular responses.

Figure 2: *Bar chart of most valuable scheduling tool features*

What features do you value in a scheduling tool?
46 responses

Feature	Count
Integration with Outlook, Go…	21 (45.7%)
Weekly view	33 (71.7%)
Monthly view	35 (76.1%)
Daily view	31 (67.4%)
Mobile app	33 (71.7%)
Desktop app	14 (30.4%)
Ability to color code or sort t…	28 (60.9%)
Ability to schedule a meeting…	23 (50%)
Ability to have a to-do list wit…	24 (52.2%)
notifications	1 (2.2%)
N/a	1 (2.2%)
reminders/notifications	1 (2.2%)
cannot have a log in, must b…	1 (2.2%)

The most valuable feature of a scheduling tool is the monthly view of tasks, with 76.1% of respondents saying that they valued it [Fig. 2]. A weekly view is also important (71.7%), while a daily view isn't as crucial (67.4%). 71.7% of respondents said that a mobile app is important for a scheduling tool, while only 30.4% value a desktop app. Integration with calendars like Outlook and Google Calendar (45.7%), ability to color code or sort tasks (60.9%), ability to schedule a meeting (50%), and ability to create a to-do list (52.2%) are all highly valued as well. Notably, two respondents wrote in that they value notifications.

Figure 3: *Bar chart of popular scheduling tool uses*

What types of tasks do you schedule in a planning tool?
46 responses

Task	Count
Homework	34 (73.9%)
Meetings	37 (80.4%)
Work shifts	20 (43.5%)
Errands	23 (50%)
Appointments	1 (2.2%)
N/a	1 (2.2%)
Personal, non-work related…	1 (2.2%)
	1 (2.2%)
appointments	1 (2.2%)
Family events	1 (2.2%)
Special events	1 (2.2%)
Hanging out with people	1 (2.2%)
workshop events	1 (2.2%)
Pet medication, vacation, sc…	1 (2.2%)
anything i need to do in the…	1 (2.2%)

The two most popular uses of scheduling tools are homework (73.9%) and meetings (80.4%) [Fig. 3]. Work shifts (43.5%) and errands (50%) are also scheduled frequently by many respondents.

Discussion and Conclusion

Based on the results of this study, many people use at least one scheduling app for various tasks, but still feel like they are not good at time management. All features were valued highly, suggesting a need for a better electronic time management tool that includes every feature. Scheduling apps were used most often for homework and meetings, suggesting that features should cater to these types of tasks over others.

Popular Scheduling Tools

The most popular scheduling apps and tools are Google Calendar (45.7% use) and Apple Calendar (34.8% use). Another study also found that Google Calendar is one of the most popular scheduling apps [4]. Google Calendar is popular because it allows users to integrate schedules from Gmail, and access schedules from both mobile and desktop devices [2, 4]. Part of Google Calendar's popularity may be attributed to its ease of use [4] and user's past experience. Recently, many middle and high schools have implemented chromebooks and Google systems to facilitate online learning and resources. This experience with Google in early schooling may make it more likely for students to continue to use Google in university, but further study is needed to explore this correlation. This theory also applies to Apple Calendar, as many students first get an Apple smartphone in middle school, making Apple's default calendar app a convenient tool for time management. Additionally, a majority of respondents said that they use only one scheduling tool, which contrasts with the results of [4], which found that their informants commonly had many different scheduling tools.

Valuable Features

The results of the survey show that people value many different features of scheduling apps. The monthly view feature is the most important with 76.1% saying they value it, which contrasts with the opinions of the informants from [4], who stated that the monthly view showed them too many tasks at once, causing stress. The informants from [4] ranked the weekly view as more important. The results also show that weekly (71.7%) and daily views (67.4%) are important, which are similar to [2] and [5], where people also said they value multiple views to visualize different lengths of time.

A mobile app feature (71.7%) is valued much more than a desktop app (30.4%), which is different from other studies that ranked both features as equally important [2, 5]. In another study, people found mobile apps difficult to use because the screen size was too small to display all their events [5]. The popularity of the mobile app feature could be attributed to college students' mobile lifestyle and lack of office space, which makes checking a desktop app much more cumbersome, but further research is needed to prove this correlation.

The results show that a meeting feature (50%) and a to-do list feature (52.2%) are important, which is similar to the results of [4]. The ability to color code or sort tasks is also important (60.9%), which is similar to the results of other studies [2, 4, 5]. In the other studies, participants also pointed out the importance of viewing different types of tasks separately, and keeping some events private and others public [2, 5].

Perception of Time Management

55.5% of respondents said that they didn't consider themselves to be good at time management, which is similar to the results of [1, 3], which found that students had difficulty with time management, especially in regards to balancing their school and work lives. In [2], participants said that an app that automatically suggests time management strategies and solutions would be helpful. 41.3% of respondents said that they missed important deadlines because they missed it in a calendar app, which is similar to the results of [4], whose respondents said that they had difficulty locating tasks, especially when using multiple calendar apps. This shows that there is a desire for a better time management app in order to help people who struggle with this skill and to reduce the amount of calendars people need to use.

Uses of Scheduling Tools

Work shifts (43.5%) were a popular use of a scheduling app, which is similar to the results of [4], where a respondent also said that they used a scheduling app for their unpredictable job. In other studies, the tasks of homework (73.9%) and meetings (80.4%) were not as closely studied. These were the tasks that people scheduled the most. These results provide new insight into how students balance their time, since a majority of their time is taken up by these two tasks.

Conclusion

The limitations of this study are its smaller sample size and potential bias from the way participants were recruited. Response was voluntary, and a certain type of person may be more likely to follow the personal Instagram account where the survey was advertised. The results of this study are applicable to the development and improvement of scheduling app features because they provide a new understanding of how college students manage their time electronically.

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