

**University of the Cordilleras**

**College of Information Technology and Computer Science**

CC12 – Statistical Analysis and Design

**Summarizing Data**

**Part 1: Qualitative**

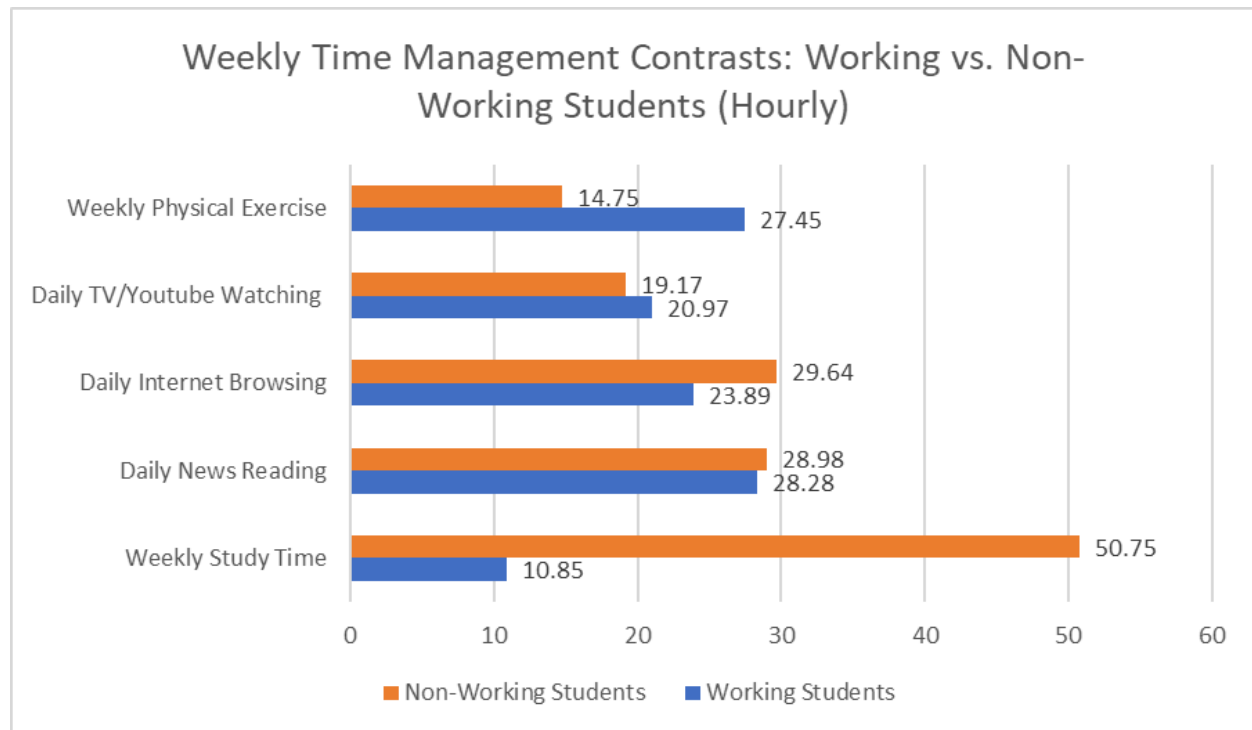
**Question :**

How did the students manage their time effectively for studying and completing assignments in the CC12 course, considering their other commitments and responsibilities?

**Variable/s involved:**

1. Time Spent Studying and Completing Assignments
2. Time Spent Reading News
3. Time Spent on Physical Exercise
4. Time Spent Browsing the Internet
5. Time Spent Watching TV or YouTube

## Presentation :



## Insight/Interpretation :

### Weekly Study Time

Working students dedicate an average of 10.85 hours per week to studying and completing assignments. This reflects their challenge in balancing work responsibilities with academic requirements. Non-working students spend an average of 50.75 hours per week on their studies, which is likely due to fewer competing commitments.

Insight: Non-working students have significantly more time to dedicate to their studies, which may positively impact their academic performance compared to working students.

## **Daily News Reading**

Working students spend about 28.28 hours weekly reading the news. This might be part of their routine to stay informed, possibly related to their work environment. Non-working students spend slightly more time (28.98 hours) reading news daily, which could be due to a different set of priorities or lesser engagement with current events.

Insight: Both working and non-working students show similar engagement with daily news, but non-working students spend marginally more time.

## **Daily Internet Browsing per week**

Working students spend about 23.89 hours weekly browsing the internet, which might include both work-related and leisure browsing. Non-working students spend 29.64 hours on the internet browsing, likely due to more available free time.

Insight: Non-working students have more leisure time, leading to increased internet usage for various activities including social media, research, and entertainment.

## **Daily TV/YouTube Watching per week**

Working students spend about 20.97 hours weekly watching TV or YouTube, which might be a quick relaxation activity amidst a busy schedule. On the other hand Non-working students watch TV or YouTube for 19.17 hours weekly, using their additional free time for entertainment.

Insight: Working students spend slightly more time watching TV or YouTube, suggesting they use these activities as brief relaxation amidst their busier schedules.

## **Weekly Physical Exercise**

Working students allocate 27.45 hours per week to physical exercise, which might be limited due to balancing work and study compared to non-working Students that spend 14.75 hours on physical exercise weekly, potentially due to different priorities or schedules.

Insight: Contrary to expectations, working students engage in more physical exercise than non-working students, possibly using it as a stress-relief activity.

## **Relevance of Findings:**

### **1. Academic Performance and Time Management:**

Understanding the difference in study time between working and non-working students is needed for Teachers/Professors to provide appropriate support. Non-working students, with more time available for studying, may achieve better academic performance due to increased focus and dedication. Working students, on the other hand, may struggle to balance work responsibilities with academic commitments, requiring tailored interventions for effective time management.

### **2. Information Consumption Patterns:**

The similarity in daily news reading habits between working and non-working students underscores the importance of staying informed regardless of employment status. Teachers/Professors can leverage students' interest in current events to enrich learning experiences and promote critical thinking skills, regardless of their work commitments.

### **3. Digital Engagement and Leisure Activities:**

The disparity in internet browsing and TV/YouTube watching habits between working and non-working students highlights the relevance of digital engagement in both groups. Non-working students, with more free time available, spend more time browsing the internet, indicating a need for digital literacy education and guidance on responsible online behavior. Similarly, understanding students' preferences for leisure activities like watching TV or YouTube can inform the design of engaging and relevant educational content.

### **4. Health and Well-being:**

The unexpected finding that working students engage in more physical exercise per week than non-working students emphasizes the importance of holistic student support. Teachers/Professors and institutions may recognize the role of physical activity in student well-being and academic success, promoting a balanced approach to student life despite varying schedules and commitments.

## 5. Supportive Interventions:

Overall, these findings underscore the need for tailored interventions and support mechanisms to address the unique challenges and opportunities faced by working and non-working students. By understanding their study habits, lifestyle choices, and time management strategies, Teachers/Professors and institutions can implement targeted initiatives to foster academic success, well-being, and student engagement across diverse student populations.

### Question 2 :

Can you describe the type of internet connection you use for online distance learning (ODL) and how it affects your learning experience?

### Variable/s involved

1. Internet connection used during ODL
2. Internet Speed

### Presentation

| <i>Type of Internet Connection</i> | <i>Number of Students</i> | <i>Average Internet Speed</i> |
|------------------------------------|---------------------------|-------------------------------|
| <i>Fiber Optic</i>                 | 18                        | 142.142 Mbps                  |
| <i>DSL</i>                         | 9                         | 224.666 Mbps                  |
| <i>Mobile Data</i>                 | 3                         |                               |
| <i>Cable Broadband</i>             | 12                        | 104.190 Mbps                  |
| <i>Fixed Wireless Internet</i>     | 18                        | 73.80 Mbps                    |

**Insight/Interpretation:****FIBER OPTIC**

Gathered data shows that 18 students use fiber optic connections, indicating strong access to high-speed internet. This likely enhances their online learning experience by providing reliable, high-bandwidth support for activities such as video conferencing and downloading large files. Students with fiber optic connections are likely to experience fewer interruptions, faster downloads, and smoother video conferencing, which positively influences their online learning experience.

**DSL(Digital Subscriber Line)**

Although fewer students use DSL, the gathered average speed is unusually high for DSL technology, suggesting either exceptional service quality or a possible gathering anomaly. Students using DSL might experience occasional lags or buffering, which can disrupt learning, especially during live classes and video streaming. However, these speeds are generally sufficient for most educational activities.

**Mobile Data**

Mobile data is used by a smaller group of students, and the absence of speed data indicates potential variability in connection quality. This can lead to inconsistent learning experiences, with students potentially facing frequent connectivity issues that impact their participation in synchronous activities and access to large modular resources.

**Cable Broadband**

Cable broadband is moderately popular and provides decent average speeds, sufficient for most online learning tasks. However, performance can occasionally be inconsistent during peak usage times, potentially affecting the stability of the learning experience.

## **Fixed Wireless Internet**

Fixed wireless internet is as popular as fiber optic among students but offers lower average speeds. While it supports general online learning activities, its performance can be affected by environmental factors, leading to variable connection reliability.

## **Satellite Internet**

Satellite internet is used by a small number of students and typically has higher latency and lower reliability. This makes it less ideal for real-time learning activities and high-bandwidth tasks, which can negatively impact the learning experience.

## **Relevance of Findings:**

The interpretation of the data underscores the critical role of internet connectivity in shaping the online learning experience for students. Access to high-speed and reliable internet, such as fiber optic connections, significantly enhances the quality of online education by facilitating seamless interactions, faster access to resources, and smoother multimedia experiences. Conversely, students with slower or less reliable connections, such as those reliant on mobile data or satellite internet, face challenges that can impede their ability to fully engage with educational content and activities.

These findings highlight the importance of addressing disparities in internet access and quality to ensure equitable opportunities for all students in online learning environments. Teachers/Professors and institutions must recognize the impact of varying connection types and speeds on student outcomes and prioritize efforts to improve infrastructure, provide support for students with limited access, and design learning experiences that accommodate diverse connectivity needs. By fostering an inclusive online learning environment, Teachers/Professors can better support student success and promote more equitable educational outcomes.

## Part 2: Quantitative

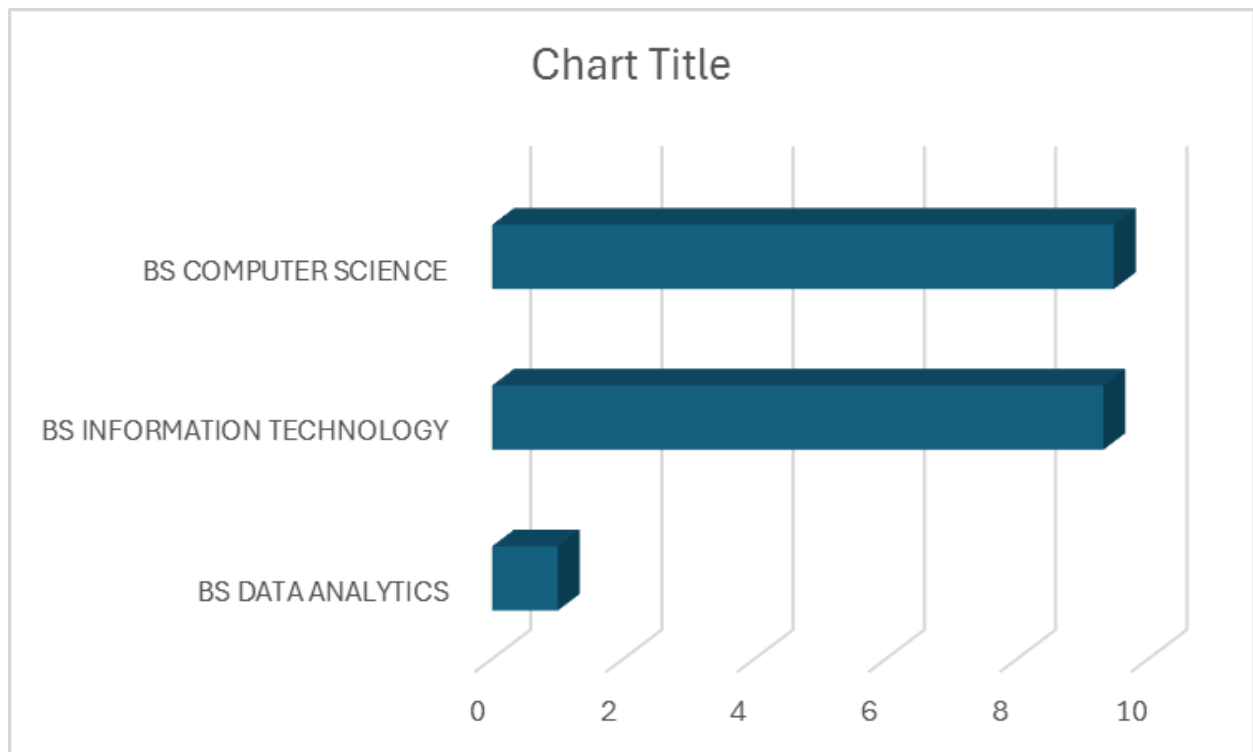
### Question

How many hours per week do the different programs spend on physical exercise or sports activities?

### Variable/s involved

1. How many hours each week, on average, do you participate in sports or have other physical exercise?
2. Select the program you are enrolled in

### Presentation





## **Insight/Interpretation**

### **BS DATA ANALYTICS**

According to a study published by [www.affordablecollegesonline.org](http://www.affordablecollegesonline.org), adults over 18 should have a minimum of 2 hours and 30 minutes of moderate-intensity aerobic activity or 1 hour and 15 minutes of vigorous-intensity exercise. It is found that on average the BS Data Analytics under the CC12-1C section are only exercising about one hour per week. It is advisable for them to engage in additional physical activity.

### **BS COMPUTER SCIENCE**

A study from [affordablecollegesonline.org](http://affordablecollegesonline.org) advises that adults over 18 should engage in at least 2 hours and 30 minutes of moderate-intensity aerobic exercise or 1 hour and 15 minutes of vigorous-intensity exercise per week. Students in the BS Information Technology program, section CC12-1C, exercise an average of 9.5 hours weekly. This shows that they are more active and surpass the recommended physical activity levels.

### **BS INFORMATION TECHNOLOGY**

A study by [affordablecollegesonline.org](http://affordablecollegesonline.org) recommends that adults over 18 should participate in a minimum of 2 hours and 30 minutes of moderate-intensity aerobic activity or 1 hour and 15 minutes of vigorous-intensity exercise each week. On average, students in the BS information Technology program, section CC12-1C, exercise about 9.5 hours each week. This indicates that they are more active and exceed the recommended amount of physical activity.

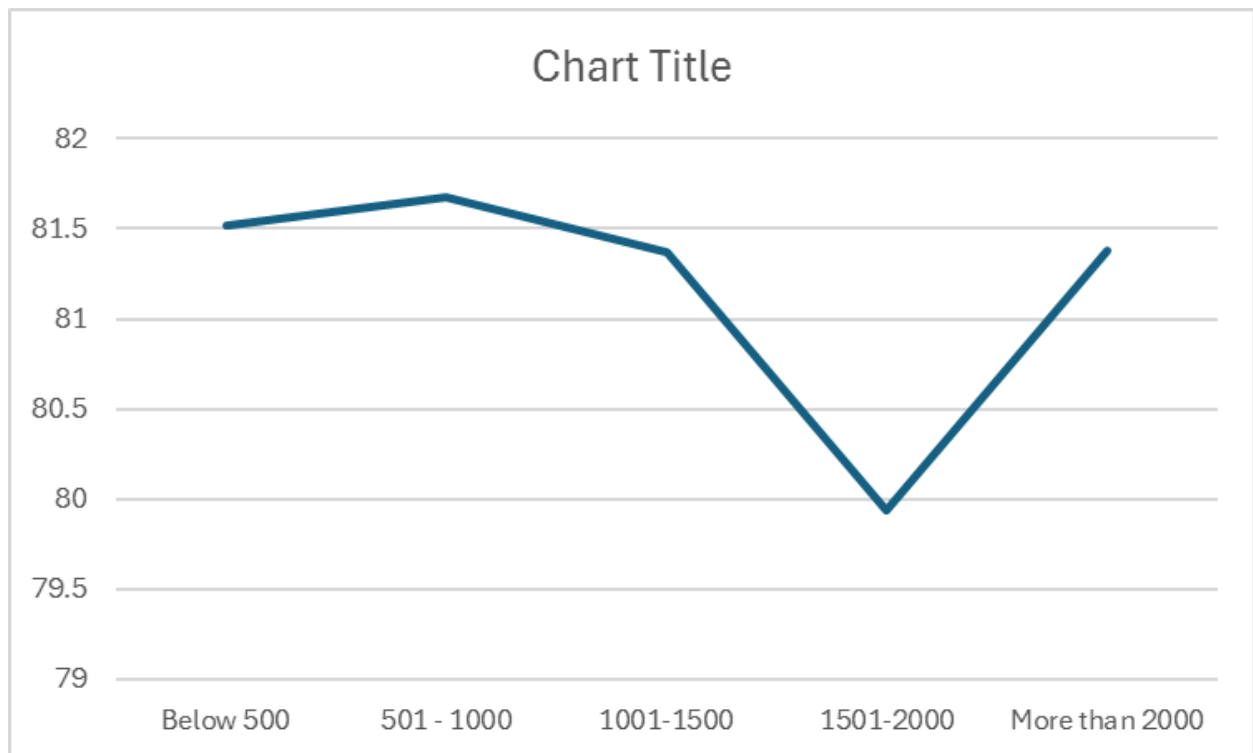
## Question

Does having more weekly allowance affect students' performance in school?

## Variable/s involved

1. How much is your average allowance per week?
2. What was your Second Term SY 2023-2024 General Weighted Average?

## Presentation



## Insight/Interpretation

### Below 500- 81.51625

It is found that students with a 500 below weekly allowance performed on average between 80-82 average for the second term of the school year.

### **501 - 1000**

It is found that students with an allowance of 501 pesos to 1000 pesos are almost identical to the previous data set.

### **1001 - 1500**

It is found that students with an allowance of 1001 pesos to 1500 pesos are almost identical to the other 2 previous data sets.

### **1501-2000**

It is found that students with an allowance of 1501 pesos to 2000 pesos performed the lowest out of all the data groups.

### **2000+**

It is found that although slightly lower than the other 3, students with 2000 pesos or more as a weekly allowance are performing almost the same as the students in the below 500 to 1001 to 1500 student range.