

In addition, 88.9% of the entire sample size enjoy reading in their free time (Figure 4).

Figure 3. English as participant's first language

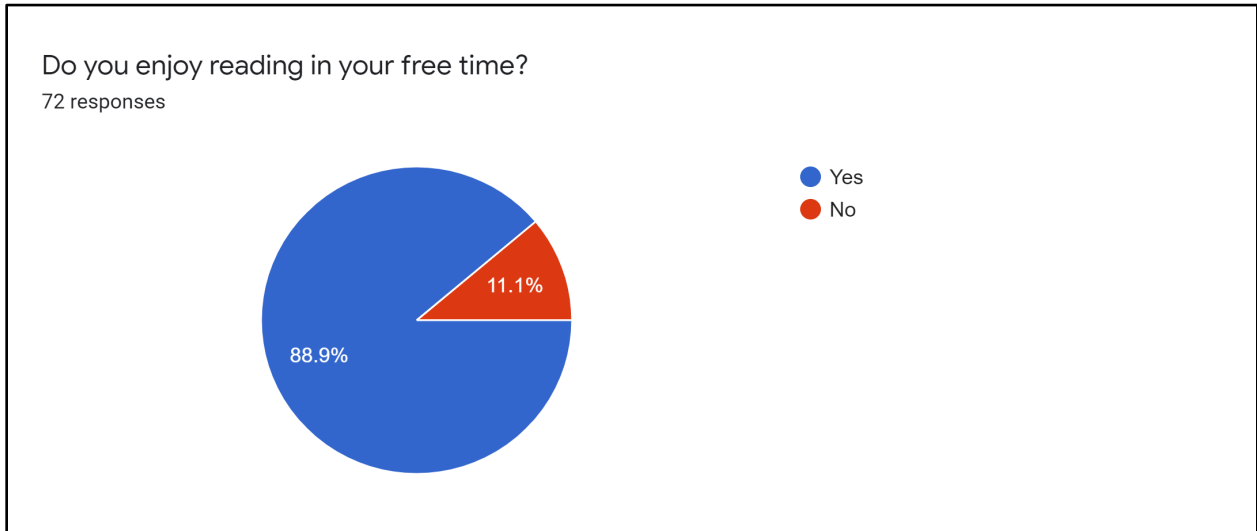


Figure 4. Enjoyment in reading in free time

Furthermore, 54.2% of my participants have an occupation that does not require spending most of their time reading any type of document, paper, book, etc. (Figure 5).

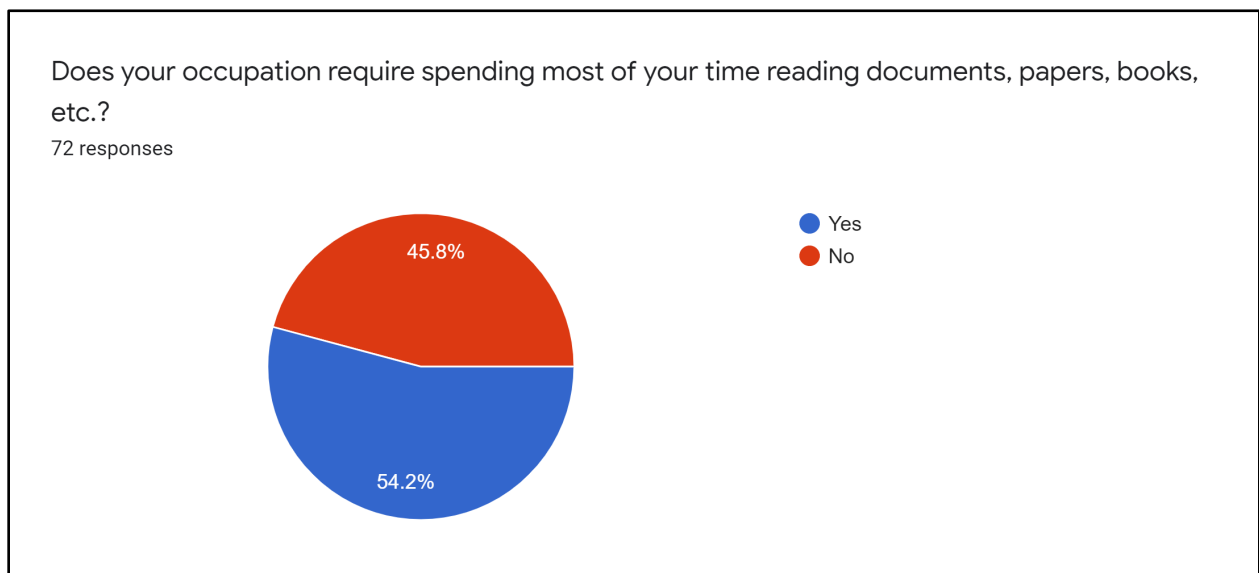


Figure 5. Reading required at occupation

As shown in Figure 6, 83.3% of my participants did not major in a specific language in college.

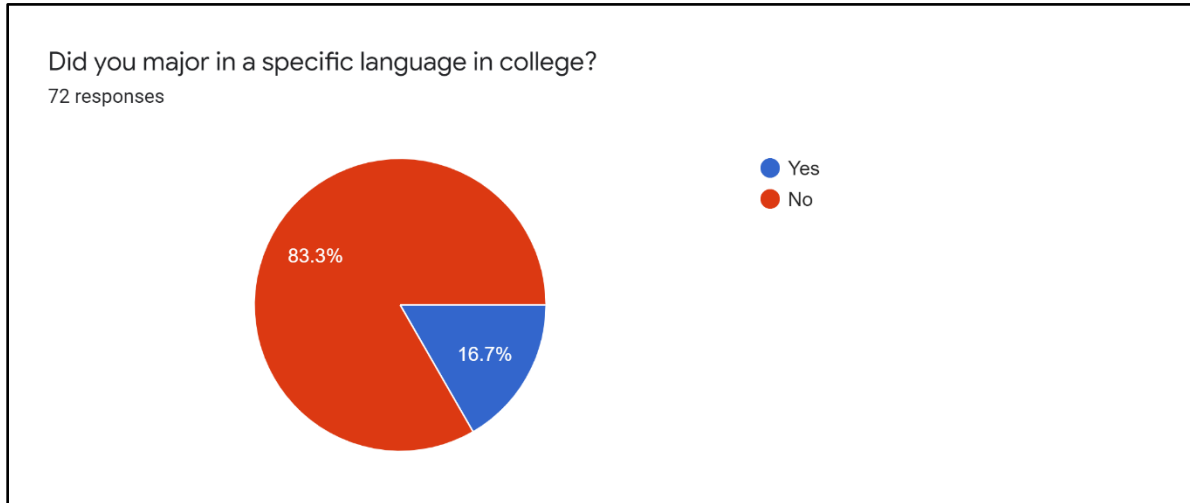


Figure 6. College major in a language

Additionally, as shown in Figure 7, 66.7% of the responses got 100% on the quiz, and 33.3% passed with a $\frac{2}{3}$ on the quiz.

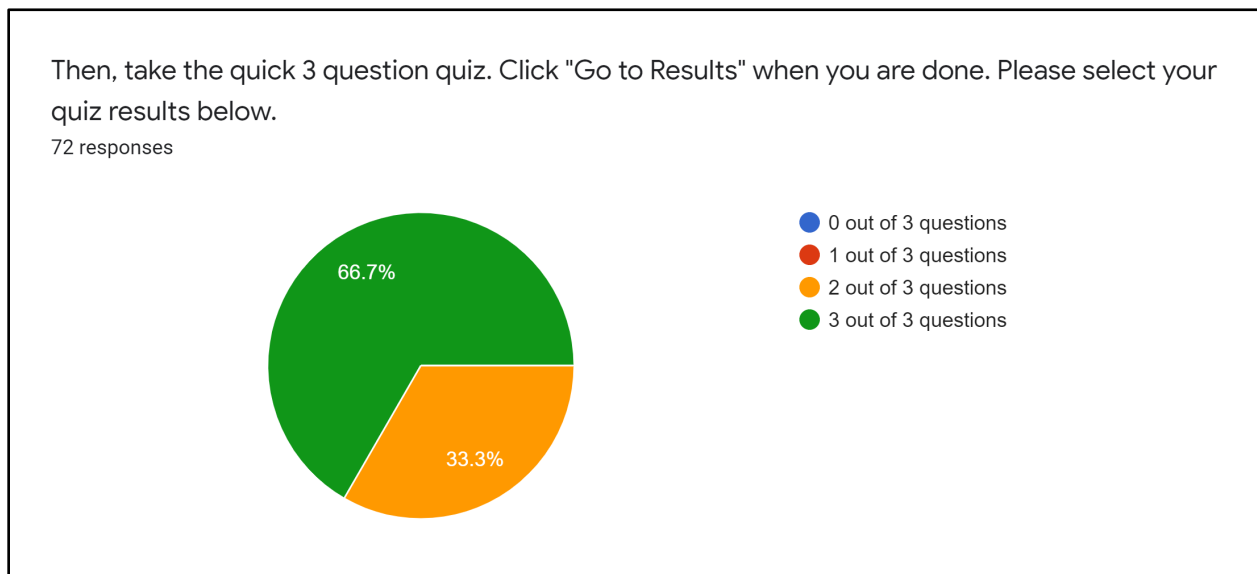


Figure 7. Scores of participant's reading speed quiz

I organized the reading speed of my participants into intervals. Since the majority of the reading speeds were all different values, I grouped them into 5 categories. Every 100 words per minute were a different category. As shown in Figure 8, 15.5% were in the range of 100-199 words per minute. 23.9% had a reading speed in the range of 200-299 words per minute (Figure 8). 26.8% of the participants read 300-399 words per minute (Figure 8). 12.7% had a reading speed of 400-499 words per minute (Figure 8). 21.1% were able to read 500+ words per minute (Figure 8).

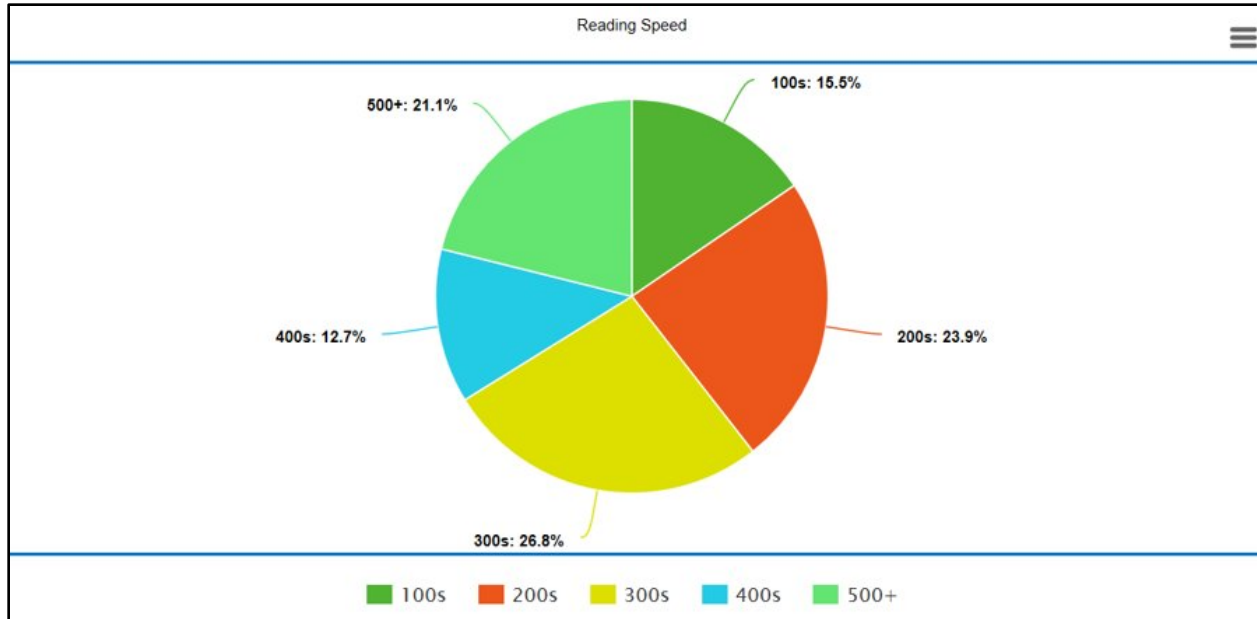


Figure 8. Participant’s reading speed interval percentages
These responses came from participants ages 30-59 that are fluent in at least one language: English.

Analysis and Discussion

After ranking the reading speed of multilinguals and monolinguals, I found that monolinguals had more consistent reading speeds. There were around 7-8 monolinguals in each of the reading speed categories. The reading speed times were consistent meaning that monolinguals have very similar reading speeds and there are no drastic differences among monolinguals. In contrast, multilinguals have been found to have more diverse results. 5 people had a reading speed in the 100s, 10 people had a reading speed in the 200s, 11 people had a reading speed in the 300s, 3 people had a reading speed in the 400s, and 8 people had a reading speed in the 500+. The reading speed of multilinguals was majorly in the 200s-300s category and fewer multilinguals had reading speeds of slower or faster. Generally, my results prove that monolinguals have an advantage in reading speed consistency and more monolinguals scored faster reading speeds such as the 400-500+ category when compared to multilinguals. After calculating the averages all the reading speeds and comparing, there was no significant difference in the averages. Multilinguals had a reading speed average of 351.2 words per minute and monolinguals had a reading speed of 351.1 words per minute. This shows that when looking at the average reading speeds between monolinguals and multilinguals, multilingualism doesn’t have a significant impact on reading speed when reading in English. As aforementioned, there was a significant difference in reading speed consistency between monolinguals and multilinguals and a greater amount of monolinguals received faster reading speeds. However, the reading speed averages between monolinguals and multilinguals were very similar and had almost no significant difference. From my analysis, it can be stated that multilingualism may hinder the reading speed of students even if the averages have no significant differences. Monolingualism may allow for a greater number of students to have faster reading speeds compared to multilingualism. However, foreign language classes should still be enforced in the education system as multilingualism did not have significant negative impacts on one’s reading speed and foreign languages may have positive effects on one’s life outside of academics.

Limitations

A significant limitation of my survey could be that the environment of my participants when taking my survey was all different; thus questioning the outside factors that may influence the results. However, I allowed all my participants to choose a location they are most comfortable with prior to the survey so that the possibility of outside influences may be reduced. Another factor may be that since the education status of my participants is unknown, it is unclear whether this may affect their reading speed. Furthermore, it is unclear whether other factors may have influenced reading speed other than multilingualism. I tried to address this by asking other questions in the survey about the time the participants take reading daily or in their free time, etc., however, I did not find any factors that may have influenced reading speed. Because of the number of possible influences, it is unknown whether multilingualism is the only factor that influences reading speed. Also, it is impossible to know how much of the reading prompt my participants actually read. This could be a limitation as this factor could have altered my results. Furthermore, in my data, I found that most of the languages that people used were very repetitive, this could be a limitation as there is not a wide variety of different languages. Languages used were mostly Spanish, French, German, Korean, and Dutch. Additionally, my survey and reading speed test were only administered to people that I know in order to ensure my safety. However, this was a limitation as the people that I know are not from all regions of the United States.

Implications

Implications of my research would significantly contribute to the education system of schools in the United States. According to my research, multilingualism may not be useful for improving one's reading speed, which is tied to academic performance in various subjects. However, foreign language classes should still be enforced in the education system as multilingualism did not have significant negative impacts on one's reading speed. In addition, foreign language classes may have benefits towards students in other aspects other than academically such as culturally and socially. Knowing how to speak multiple languages allows one to connect with individuals from all over the world and be more knowledgeable of all the different cultures. Due to this, schools may want to change their education system to focus on reading speed first before mastering a language. Courses created specifically to help students with reading speed may be offered to students before foreign language classes so that students can start learning a new language with strong fundamental reading speeds. Conversely, schools could also implement foreign language classes with the addition of classes specifically designed to focus on students' reading speed so that both languages and reading speed could be improved at the same time. As another alternative, schools can alter foreign language courses slightly in order to include a focus on reading speed while teaching about the languages. This course could help students learn a new language while developing faster reading speeds in the same class. By doing this, schools will be able to improve their education systems for the betterment of the students both academically and culturally. Furthermore, during the college application process, colleges may consider multilingualism as a factor that defines one's cultural diversity and social abilities. As it is proven that multilingualism does not majorly impact an individual's academic performance, colleges can acknowledge the applicant's strength of being able to be fluent in multiple languages as the applicant's strength in other aspects aside from academics.

Conclusion

Multilingualism has been proven to have very little significance in influencing reading speed. Thus, leaving me to hypothesize that multilingualism also has very little influence on academic achievement due to the aforementioned conclusion made by Timothy Bell that reading speed directly impacts academic achievement. Future researchers should take into consideration my limitations of a limited scope and research on the validity of reading speed on

academic achievement. Future researchers may want to research in-depth how multilingualism affects individuals' everyday lives outside of academics such as culturally or socially. Additionally, follow up questions such as how children are affected by multilingualism and whether multilingualism affects adults and children differently can be addressed along with whether multilingualism affects people differently in other countries.

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