

The role of reading in learning languages for specific purposes and its change at the time of the Covid-19 pandemic

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Dubravka Pleše*, Dijana Njerš **,

*University of Zagreb, Faculty of Mining, Geology and Petroleum Engineering, Croatia,

dubravka.plese@rgn.unizg.hr

**University of Zagreb, Faculty of Food Technology and Biotechnology, Croatia; dnjers@pbf.hr

Abstract

Reading is of the key significance as a way to transfer knowledge, both in education and it is most frequently cited favorite leisurely activity as well. It adds to the increase in grades in standardized tests in all subjects, improves comprehension skills, develops fluency, and increases general knowledge, as shown by Cullinan (2000). In studies conducted by Kidd and Castano (2013) it was shown that reading for pleasure improves empathy and enables the reader to achieve a better understanding of the mental states of other people. On the basis of this insight, we decided to check our students' attitudes towards reading. We also wanted to see if the students' reading habits changed at all due to the Covid-19 pandemic and how. To achieve that, we designed a questionnaire that was distributed among our students. We gathered information from 227 male and female undergraduate students of the Faculty of Mining, Geology and Petroleum Engineering and the Faculty of Food Technology and Biotechnology, University of Zagreb. The results have indicated that our students read less than expected from sources of questionable reputation and that although they do not spend much time on reading, they do enjoy it. They are conscious that reading is of utmost importance for their academic success, and the purpose of reading is to acquire general knowledge and broaden their own general culture. They also mention that their general reading habits have changed during the Covid-19 epidemic and that they started reading more.

Keywords: *reading; academic success; reading sources; general culture*

Introduction

Reading is a versatile activity. If we look at it from an academic perspective, it would be only fair to say that it is a gateway to success in education. Being the core element in the learning process, it also serves as a means of communication and language acquisition. Furthermore, it assists us in understanding and obtaining information that is to be used for our self-development and progression. (Duff, Tomblin, Catts 2015, Pieschl 2009)

Reading should start at an early age and this interest in reading should be sustained for a lifetime. In that case, the benefits of reading are countless. In this introductory part we are to mention just a few benefits.

Reading helps students enhance their fluency, it fosters their vocabulary and general knowledge. People with good reading skills are more likely to have better job opportunities.

If reading is to be considered a habit (a positive one, by all means), it must be carried out continuously and with persistence. Habits are measured in terms of frequency (how often we read), the quantity of materials (the number of pages read) and the time (spent reading). Thus, reading habits are closely connected to students' academic success. Proficient readers are successful students. (Delgado, Vargas, Ackerman, Salmerón 2018).

Recently, reading has been losing the battle against social networks. Namely, all recently conducted studies (Mikšikova 2019, Pavliša 2016, Medar and Kenchakkanavar 2015) have shown that students spend far less time reading than being on YouTube, Instagram, Twitter, TikTok, Facebook and other such social networks. Reading comprises not only college reading, but also extracurricular reading.

This paper summarizes the literature related to reading habits, the benefits of reading, the reading attitudes, the purposes of reading and the research conducted among 227 undergraduate students on their reading habits and attitudes. The aim of the paper is to verify the assumption of the authors that the students do not read extensively and that they use resources of questionable integrity.

Theoretical background

There are several different aspects of reading that contribute to the development of a well-rounded individual. It has long been established that knowledge can best be transferred by way of reading, which broadens vocabulary and enhances the fluency. Aside from the transfer of information, reading also serves other purposes, it is a method of relaxation. In this section, we concentrated on some of those issues in more detail.

Benefits of reading

Reading is a primary source of knowledge

Reading is, primarily, a source of knowledge. If we need to obtain information, we are going to turn to reading. It helps us build ideas and opinions about various subjects. Salabas (2008) notes that reading keeps us updated with information and knowledge about everything in the world. He claims that it has a positive effect on students' academic reading. Students should comply with reading and make it a daily activity, claim Veerabasavaiah and Shivappa (2018) and Schunk (2003).

Reading broadens vocabulary

When acquiring a foreign language, reading is essential. According to Nippold, Duthie, and Larsen (2005), one half of vocabulary knowledge is gained through reading. Good vocabulary helps us convey our knowledge to others (Duff, Tomblin, and Catts 2015). In order for them to acquire vocabulary, students must be exposed to different types of texts (Cunningham and Stanovich 1998). Consequently, their grammar and spelling expand, too (Strommen and Mates 2004).

Reading enhances reading fluency

Reading fluency must not be mistaken for language fluency. If a person reads on a regular basis, their reading fluency will increase. The term "Reading Fluency" was described by Lee and Yoon (2017) as the ability to read texts fast and accurately with little mistakes and effort as well as reading texts expressively with the correct pauses, articulation and phrasing. Students who are fluent at reading do not strive for meaning. They at once interpret the ideas and concepts contained in the read text. Therefore, there is a positive relationship between fluency in text-reading and reading comprehension (Kim 2015).

Purposes of reading

Students read for various purposes. They read in order to get simple information, to write, to critique texts and for general comprehension. However, we have decided to mention the two prevailing ones: academic reading and leisure reading. Academic reading helps students to interact with and make connections and judgements between texts, question contributions, and challenge inherent biases and arguments. In this way, academic reading is linked to the development of critical thinking. Leisure

reading, on the other hand, can have benefits for students' concentration, vocabulary, reading and writing skills, and improving working memory.

Reading for academic purposes

Academic reading refers to the reading activities that are assigned by teachers, parents or tutors for the sake of gaining academic skills and knowledge (De Naeghel et al. 2012). This kind of reading can also be voluntary, when students decide to read to gain the above-mentioned goal. Academic reading involves the reading of very long texts for a specific subject area. However, this reading should be done critically (Isakson and Isakson 2017). It is a process that involves critical and cognitive abilities. In terms of academic reading, students mainly rely on textbooks, lecture notes, articles and online resources (Medar and Kenchakkanavar 2015, Özkan 2017). Online resources, such as online newspapers, magazines and various video resources have become increasingly popular in recent years.

Leisure reading

Leisure reading is also referred to as recreational (Mueller et al. 2017), pleasure (Sullivan and Brown 2015) or voluntary reading (van Bergen et al., 2018). In the case of leisure reading, a person chooses what, when and where they are going to read. It belongs to the group of out-of-school activities. Leisure materials are usually newspapers, fiction books, magazines, novels and comics.

Reading attitudes

As already mentioned, students read for various reasons: for knowledge, entertainment and academic purposes. They mostly read only when they have to (for the purpose of studying). A study was conducted among students of a polytechnic (Annamalai and Muniandy 2013). The purpose of this research was to examine the reading habits and attitudes of students. The respondents were students of Engineering and Business. The study showed that the students' interest in reading was low and that they enjoy technological activities much more than reading. They find reading boring and tedious and feel anxiety when reading. They also think that there are better ways to learn than by reading. In conclusion, their attitude to reading is negative.

In 2015, Erdem conducted research on reading habits and the attitudes of students of the University of Ankara (undergraduate students of Primary Education) and Erciyes University (undergraduate students of History Department). Both groups of students reported that they enjoyed reading immensely (literary works, historic, romantic, psychological genres), and they expressed their regret that they could not spend more time reading, due to their busy social life, the intensity of lectures, preparation for exams and the time they spend on the Internet. These students' attitudes toward reading were positive, both for academic and pleasure reading.

We have chosen these two studies since they, as expected, prove that students of technical sciences would have negative attitude to reading, whereas the attitude of those studying social studies and humanities was positive.

Research methodology

As we have already mentioned, the aim of our research was to ascertain whether our observations regarding the frequency of reading and the sources our students use while reading are true. For that purpose, we selected a particular group of participants and designed a data collection instrument, procedure and analysis method we believed would best serve our purpose.

Participants

The study focused on 227 undergraduate students of two faculties of the University of Zagreb, the Faculty of Mining, Geology and Petroleum Engineering (137 students) and the Faculty of Biotechnology

and Food Technology (90 students). The authors decided to use the convenience sampling method because in 2007 Dörnyei said that convenience sampling may be used if the members of the target population meet specific criteria (which is true in this case – they are all undergraduate students of similar age and have achieved similar levels of education up until this point). Other reasons for using this method include proximity, availability and the willingness of the participants, and also its simplicity and frugality (the authors financed the study themselves).

The majority of students were of a similar age (215 of them were between 18 and 20 years old). In case of the gender distribution, the obvious discrepancy between sexes (149 females and 78 males) can be explained by the fields of study themselves, i.e., while Petroleum Engineering, Mining and Geology have traditionally been fields that employ mainly men (and therefore attract mostly male students), Food technology and Biotechnology are fields usually chosen by female students. The discrepancy in the number of participants is due to the fact that more female than male respondents were willing to participate in the study. The two teachers who conducted the survey are employees of their respective institutions with 20+ years of experience teaching, who were working directly with the students who were surveyed.

Data collection instrument

The students were surveyed using a questionnaire in Croatian designed by the authors and based on research conducted by various other authors (Erdem 2015, Bharuthram 2017, Zainol Abidin, Pour-Mohammadi and Lean 2011, Bensoussan 2009). We collected students' demographic data, such as age and sex. The questionnaire contained of 10 questions that were distributed into two sections. The first part dealt with demographics, the second part with the frequency of reading, the students' reasons for reading (their motivation), the kinds of materials they read and their origins, the importance of reading for the achievement of academic success, their feelings towards reading and the changes that have happened to their reading patterns since the onset of the COVID-19 pandemic. The questionnaire offered several possible answers to various questions and students had to tick the one answer they agreed with the most.

Ethical compliance

Before starting the research, both the authors presented the survey and its questions to their respective Ethics Committees, which reviewed the plans for the research and the questions asked and granted their approval. All the data was collected anonymously from survey participants and no personal identifiers were collected during the study. Before the beginning of the survey, all participants were made aware of the details regarding the study and the reasons for its conduct, they were free to decide for themselves if they wanted to take part in the study or not and free to change their mind and withdraw at any time. The completion of the survey was taken as implied consent.

The data collection procedure

The survey was conducted using Google forms. Students were sent the link to the survey via email and asked to participate in the span of one month during the winter semester of the academic year 2021/2022.

Data analysis

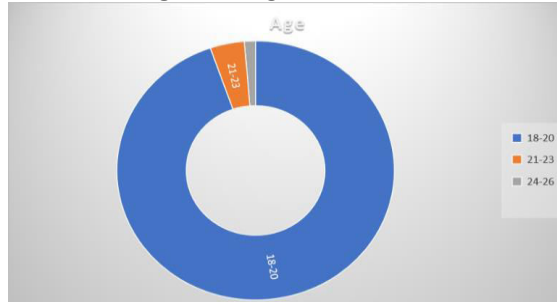
The data gathered by the survey was tabulated and analyzed automatically by the Google forms program. The data is shown graphically, using pie charts and tables to facilitate understanding and analysis.

Results and discussion

Respondents' demographics

The demographic data collected included age of respondents and their gender.

Figure 1. Age distribution



It can be seen in Figure 1 that the age distribution is quite uniform, i.e., that more than 90% of respondents are in the 18-20 age group. This was to be expected because the survey was mainly distributed among first-year students who are typically of that age.

Figure 2. Sex distribution

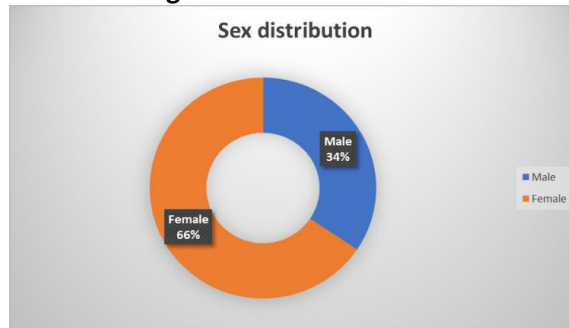


Figure 2 presents the distribution of respondents by sex. Although it is usually believed that gender distribution greatly depends on the field of study, i.e. that professions such as healthcare and nurturing are dominantly interesting to women (in this case, students of the Faculty of Food Technology and Biotechnology) while the technical field is traditionally regarded as a male domain (the Faculty of Mining, Geology and Petroleum Engineering), it has been documented that in the past decades a significant shift in outlook has occurred and that an ever growing portion of the student body is made up of women, while there are fewer men at all institutions of higher learning.

Survey questions

Figure 3. How often do I read?

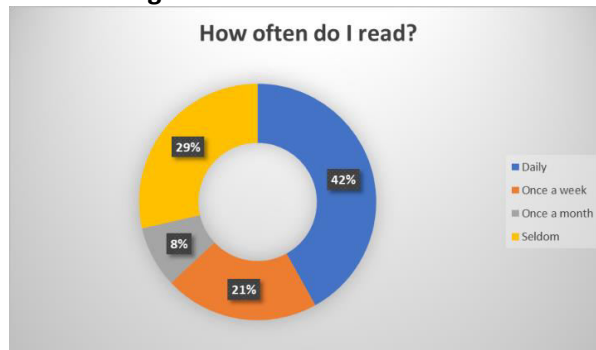
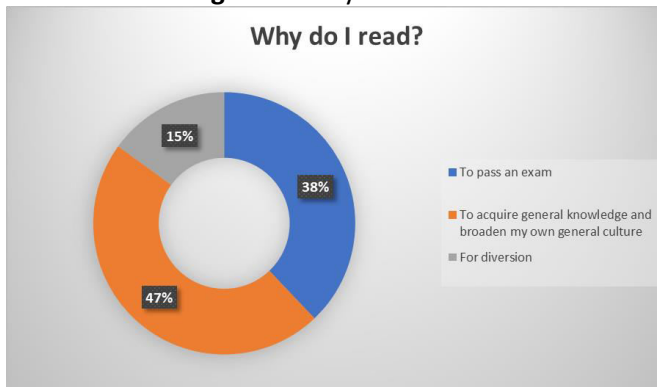


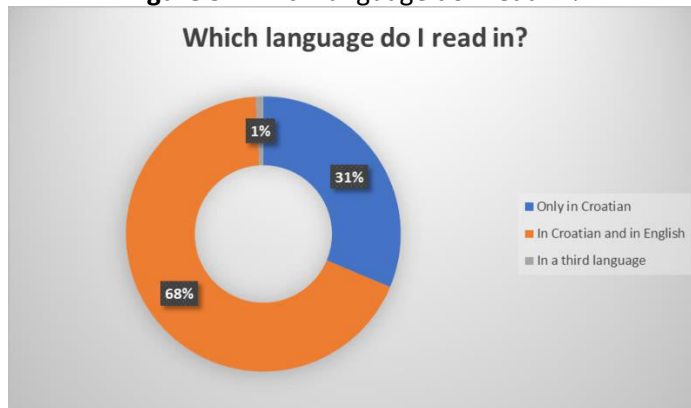
Figure 3 reveals the frequency with which the respondents read. It shows that most students read daily (42%). However, many have said that they only read seldom (29%) or once a week (21 %). The authors were very surprised to discover that as many as 8% read only once a month, which is disturbing since they are all university students whose basic tool of knowledge acquisition was expected to be reading.

Figure 4. Why do I read?



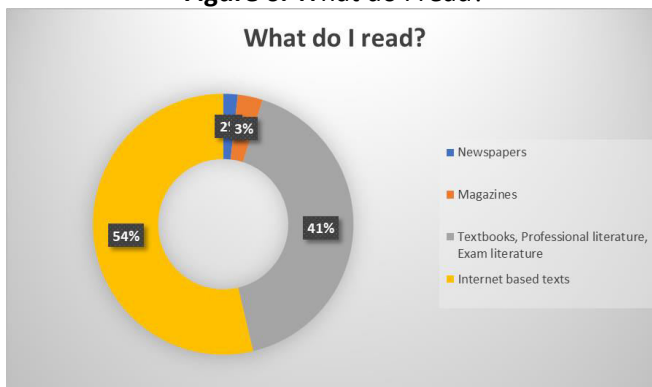
The majority of respondents report that they read to acquire general knowledge and to broaden their general culture (47%), as can be seen in Figure 4. However, the second most frequently cited reason for reading is utilitarian, i.e., the students read only to pass an exam (38%). These two reasons are generally most frequently cited as reasons for reading. The third reason for reading, as a means of diversion, was stated by only 15% of students.

Figure 5. Which language do I read in?



According to our survey, most of our students (68%) are bilingual when it comes to reading, they read in both English and in Croatian, as shown in Figure 5. This is not surprising since most of their exam literature is in English. However, there is a significant number of students (as many as one third or 31%) who only read in Croatian. A very small number of students (only 1%) read in some third language.

Figure 6. What do I read?



As we have already come to expect, the majority of respondents read Internet based texts (54%) while professional literature comes a close second (41%) and is followed by magazines (3%). Very few students read newspapers (2%). These results can be seen in Figure 6.

Figure 7. There are better ways to learn than reading

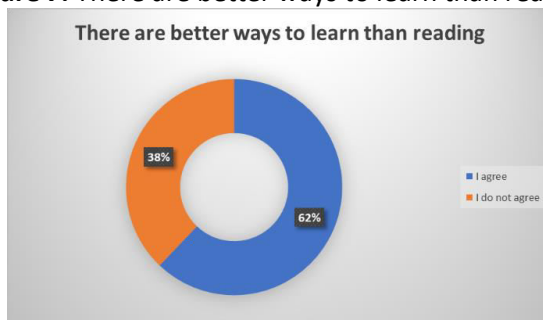


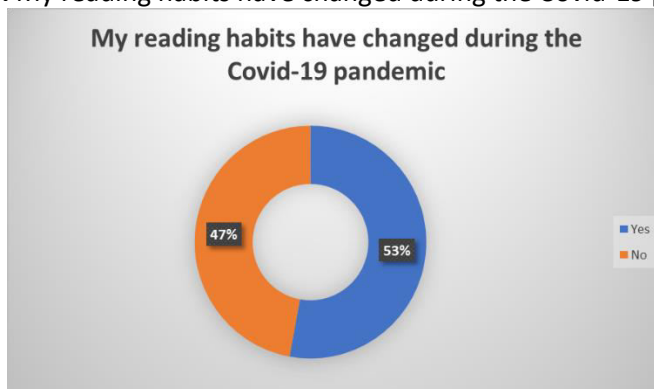
Figure 7 shows that most students believe that reading is not the best way to learn, but that there are better ways (62%).

Figure 8. Reading greatly influences my academic success



The results represented in Figure 8 show that students can clearly see the correlation between reading and academic success. As many as 77% answered that they believe reading does greatly influence their academic success and only 23% do not consider reading an important factor.

Figure 9. My reading habits have changed during the Covid-19 pandemic



A slight majority of students (53%) state that during the Covid-19 pandemic their reading habits have changed while as many as 43% do not recognize any change has taken place at that time, as shown in Figure 9.

Figure 10. During the Covid-19 pandemic I started reading...

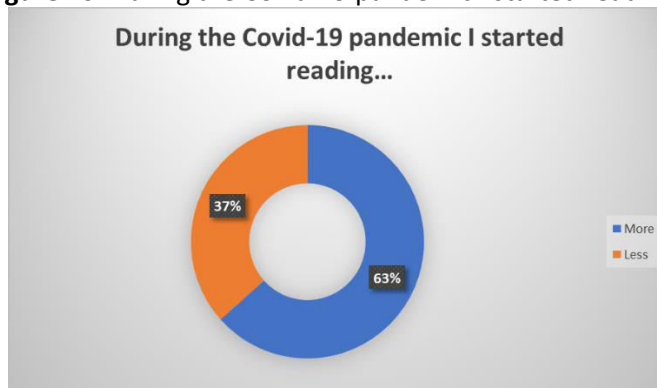


Figure 10 shows that more than half of our respondents (63%) state that they have started reading more while 37% say that they have started reading less.

The authors, working with generations of students have noticed a change in the reading habits of our students and have hypothesized that the change was caused by the advent of numerous and various digital technologies, as well as by the beginning of the Covid-19 pandemic. These two factors have caused our students to read less than before, choose sources of dubious quality (such as tabloids, Internet pages that publish information of uncertain and unscientific provenance, etc.), that their reasons for reading are mostly utilitarian and that they do not really read for pleasure. We expected the survey to show that the respondents started reading more during the Covid-19 pandemic period, which led to several lock-downs and isolation.

The results showed that while some of our hypotheses were valid, in some cases we were mistaken. Question 1. How often do I read?

Thanks to our everyday contacts with our students, we got the impression that our students read less and spend their time on various other hobbies and pastimes. Such a change was not unexpected, because the literature review has shown the same pattern emerge throughout the world. For example, the same was determined by the study conducted by Kolhar, Kazi and Alameen (2021), which showed that: "... 97% of the students used social media applications. Only 1% of them used social media for academic purposes. Whereas 35% of them used these platforms to chat with others, 43% of them

browsed these sites to pass time.” (p. 1). However, less time spent reading and more time spent using social media leads to social networking addiction (Azizi, Soroush, and Khatony 2019), inability to concentrate (Firth, Torous, and Firth 2020) and poorer academic achievement (Rozgonjuk, Täht, and Vassil 2021).

The survey conducted among the students of our two faculties has shown that 42% of respondents read daily and 21% read once a week. That means that as many as 63% of students surveyed read more or less regularly. This is encouraging news but this still leaves around 37% of students who say that they read once a month or even less frequently, which is disheartening, especially if one takes into account the fact that they are all University students who should have well developed reading habits.

Question 2. Why do I read?

The students' motivation for reading was of great interest to us. We were under the impression that students read only if they are instrumentally motivated, i.e., to pass their exams. We were happy to realize that the majority of students read to gain general knowledge and to add to their general culture (47%) or for diversion (15%). This was excellent news because according to Cullinan (2000), “pleasure readers score higher on standardized tests in all subject areas, develop greater reading comprehension skills, have increased fluency, and display higher levels of general knowledge”. Still, many students stated that their only motivation for reading is to pass exams (38%), which is in concert with the results of Akabuike's study conducted in 2012 that also confirms that students are interested in reading to pass quizzes and exams. However, these findings make us feel optimistic because it seems that our students do realize the importance of reading for personal development, the acquisition of general knowledge and broadening their horizons.

Question 3. Which language do I read in?

Most of our respondents said that they read in both Croatian and English (68%), and this is not surprising if one takes into account that a large portion of literature at both Faculties is available in English. However, it is worrisome that many of our respondents stated that they read only in their native language, Croatian (31%). This means that regardless of the great necessity to read in English (for example, to be able to pass their exams), many students still try to avoid reading in English and rather try their luck on preparing for exams from Croatian textbooks and lecture notes.

Only a very small number of students reported reading in some other language (only 1%).

Question 4. What do I read (newspapers, magazines, textbooks, exam literature and professional literature, Internet based texts)?

The majority of students said that they mostly read Internet based texts (54%) while professional literature comes in second (41%). Magazines are mentioned as their third choice (3%), while only 2% of respondents read newspapers. This means that the majority of students surveyed favor reading for leisure and recreation, which is good news due to the fact that reading is considered to be good for a person's mental health. It reduces problems such as stress, anxiety, and depression, some of the most frequently cited problems, as noted by Blanco et al. (2008). The same was established by Croatian authors (Bezinović et al. 1998). Leisure reading also improves reading skills and academic performance in general (Wang et al. 2020).

Question 5. There are better ways to learn than reading.

Most of the students believe that there are better ways to learn than reading (62%), which can be easily understood in this day and age. Today, the majority of most people get their information by talking to their peers, watching TV using various Internet services (such as YouTube, Instagram, Facebook, Twitter, TikTok and others) or search engines. This is a quick and easy fix for current times, when life has become so hectic and fast-paced and very few have time enough to devote to reading and gaining insight into problems using such old-fashioned methods. Modern-day services provide quick information and sometimes different, easier-to-understand explanations of complicated ideas but not

deep insights. Most of the information provided by such services is not backed by science, checked by the scientific community and they do not provide serious, in-depth information about a scientific topic. This became very clear during the Covid-19 pandemic.

When faced with study subjects they find difficult to comprehend (such as, in case of our students, Mathematics, Physics, Mechanics, etc.), many students resort to Google and other search engines to find short articles or videos which help them understand the topic at hand. However, research shows that most students, particularly undergraduates, usually choose only sources that are not difficult to understand, easy to find and available without much effort (Tolar-Burton and Chadwick 2000). Due to those criteria, the students do not evaluate the quality of such sources critically and do not select (or even manage to find) sources and information that will provide them with up-to-date and true information (Brand-Gruwel, Wopereis and Vermetten 2005, Monereo, Fuentes and Sánchez 2000). The authors believe that the fact that this is a problem of an entire generation points to a systemic issue, i.e. that the current generation lacks the ability to focus on reading and to read for sustained periods of time. Such an opinion is backed by research, conducted by Smallwood, 2013, who discovered that students who read print materials tend to mind wander less and comprehend more compared with students who read using digital technology. Delgado et al. (2018) also pointed to the *shallowing hypothesis* which could explain on-screen inferiority. This hypothesis was postulated by Anisette and Lafreniere (2017) and it states that individuals who are exposed to large amount of daily reading using digital media relate with textual information superficially. This, of course, is changing the way we process information. Such digital reading also influenced the students' ability to focus on a task as was proven by studies by Baron (2015) and Wolf (2018). Such poor ability to focus on a task often leads to poorer metacognitive calibration, which is the accuracy of the learners' perceptions of their own performance (Pieschl 2009). This is exactly what the authors have noticed in their work with their students and this is why the authors in general do not agree with the students' statements that there are better ways to learn than by reading.

However, sometimes, depending on the profession, learning is achieved by doing. That is why all of our students have mandatory practices where they learn their future professions hands-on, in real time and real circumstances. Still, for them to be able to do that, the students must be prepared and that is, in the authors' opinion achieved by reading.

Question 6. Reading greatly influences my academic success.

Although our students believe that there are better ways of learning than reading, the majority (77%) is conscious of the correlation between academic success and reading. This was expected because our students have been made aware of certain facts of life pertaining to academic success that were also corroborated by a study conducted by Cullinan (2000), who discovered that pleasure readers possess greater comprehension skills, their fluency is increased, and their levels of general knowledge are higher. Starting from elementary school, pleasure readers usually obtain significantly higher grades than children who do not read. Children who read usually become more creative and open, they build their knowledge base and are able to focus and concentrate better. Readers develop better critical and analytical skills, necessary for university studies because they enable them to separate the important from the insignificant, and have better memory retention skills than students who do not read, as well as a larger vocabulary (Duff, Tomblin and Catts 2015). A study by Berns et al. (2013) shows that in days following reading sections of a book, their brain was showing increased connectivity in areas responsible for the receptivity for language as well as physical sensation and movement. This is of key importance for academic success, and particularly significant at the university level. However, as many as 23% of respondents choose not to read and do not consider reading to be important for the achievement of their academic goals. This fact is very difficult to explain although one of the possible reasons for this was suggested in an old study conducted by Irving (1980). The study discovered that most respondents

do not associate reading and pleasure. Aside from that, as was mentioned before, today's students lack the discipline and the ability to focus on a task for longer periods of time, which is what reading requires. This, in the authors' opinion, is caused by the advent of digital reading tools and the Internet who support skimming instead of in-depth reading. However, regardless of all of these setbacks, the authors are encouraged by the fact that the majority of students understand the significance of reading for academic success.

Questions 7 and 8: My reading habits have changed during the Covid-19 pandemic / I started reading more/less

As the data shows, the reading habits of our student have changed during the Covid-19 pandemic and 53% of students say that they started reading more. This did not surprise the authors because the beginning of the Covid-19 pandemic (at least in Croatia) was followed by an increasing feeling of panic and doom, arousing anxiety in most of us. On top of that, Croatia was struck by a series of relatively strong earthquakes starting from March 2020, that further exacerbated the feeling of fear and helplessness and many people found solace and at least some escape from reality in reading. Due to numerous lockdowns, we were all unable to go out, meet our friends and family so reading seemed a natural and reasonable way to escape our reality. The number of those who stated that they started reading more increased by 63% which is very different from the results of the study conducted by Lukačević, Petr Balog and Radmilović (2021), which determined that the Covid-19 pandemic did not significantly influence the reading habits of their respondents. Perhaps a way of explaining such a difference lays in the demographics of the respondents – while the study conducted by Lukačević et al. focused on public library card holders in the Osijek-Baranja County (who are of different ages, socio-economic status and educational levels), our study was centred around students in the country's capital who are all of similar age and similar educational level.

Limitations and future research

Although the authors believe that this study speaks volumes about their students' reading habits and attitudes, it also has its limitations. Although the study was conducted on a large number of respondents, the authors were severely limited by their lack of funds and thus unable to conduct a serious statistical analysis.

Another limitation of the study was that, due to the lack of funding, it did not research the correlation between the sex of the respondent and the answers to the questions. Without a doubt, it would be quite interesting to see if a difference exists between the views of female and male respondents (the authors expect that there would be significant differences).

Hopefully, in the future, other studies could be conducted that could more closely focus on particular faculties or compare the situation at faculties whose fields of study are more closely related. It would also be interesting to check the differences in views regarding reading between students who attended comprehensive high schools and those who come from trade schools.

Conclusion

Our survey has corroborated many of our assumptions, i.e., that our students do not read very often, although the majority is well-aware of the significance of reading for their academic success. Many are instrumentally motivated for reading and read, in their own words, only to pass their exams. However, taken cumulatively, more than half read to gain general knowledge, add to their culture and for diversion. This means that many of our students are the so-called "pleasure readers", who are aware of the benefits of reading. This makes us feel hopeful because it shows that they are aware of the importance of reading.

The majority of students read in both Croatian and English, which is to be expected since in academia English is *lingua franca*.

Most students read texts acquired from the Internet, relying on the first results that the search engine produces. This points to a potentially serious problem relating to the quality and relevance of search results and selecting sources and information that will provide current and truthful information. This also points to our students' shorter attention spans, poor critical thinking skills and the fact that they are incapable of deep, sustained reading because the Internet offers short and superficial explanations for deep and complex issues. Unfortunately, such findings only corroborated the authors' initial assumptions.

These results are in accordance with other studies about reading in Croatia (Lukačević, Petr Balog, and Radmilović 2021, Pavliša 2016, Kvaka – Ured za kreativnu analizu (2022)). Such a situation is a matter of concern because the situation where university students read just to pass exams or use the Internet as their primary source of information is troubling. If the future leaders of society do not read, cannot sustain focus for longer periods of time and are unable to evaluate information critically, this is very worrisome because a society like that will not be able to keep up with modern, developed and scientifically advanced cultures and countries. Members of such a society who have mastered these skills will leave and look elsewhere for better living conditions, unwilling to remain in a society populated by poorly educated individuals, unable to critically evaluate events and easily fooled by “fake news” and platitudes. This will inevitably lead to the ultimate destruction of the said society. Because of that, it is of crucial importance for the government and the entire society to invest as much time and means possible into promoting reading from an early age.

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