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Digital and print media texts and their comprehension by young adults – preliminary research results

The COVID-19 situation has intensified the emphasis on digital communications both in the media and in other areas. Thanks to the acceleration of digitization, new devices for reading and interpretation of text are being introduced and new possibilities for working with the text (reader interaction with the text) are being phased in. A wider sensory apparatus is involved, which, according to Zuzana Husárová (2012), makes the reception of text go well beyond mere skimming of the words and decoding their meaning, but can also include a visual or auditory experience (different from the relationship between image and text in a printed book), and have a multisensory character. Changing the medium changes the way information is read from it. When reading digital texts, it is necessary to take into account the mutual relations of individual elements. With digital texts, it is also possible to consider the presented stimuli and elements that can distract the reader's attention and concentration, such as hyperlinks, references, etc. Quite the opposite is reported by Lauren Eutsler, et al. (2020), according to whom reading the text in a digital medium increases the recipient's attention rate. In the study of cognitive processes associated with reading, the researchers are mainly focusing on identifying the differences in the degree of comprehension of texts

depending on the medium type. However, this research has not yielded clear results, e.g. Franziska Kretzschmar, et al. (2013) found that there are no significant differences in the comprehension of text in the different media (tablet, e-reader, paper), and on the other hand, according to Anne Mangen, et al. (2013) and Amanda P. Goodwin, et al. (2019), the readers of texts in printed form scored better in the comprehension tests compared to those with electronic texts regardless of the article type (sub.). According to the author, this is due to the fact that reading is not only a visual activity, but also a tactile one, and our brain perceives text not only as an image, but also partly as a spatial object. Such stimuli are more pronounced on paper than on screen (Mangen et al. 2013). According to other studies (DeStefano et al. 2007; Fesel et al. 2018), hypertexts in electronic media worsen the degree of comprehension. This may be caused by the significant overload of working memory with references. The above studies were mostly focusing on textbooks. However, the issue of text comprehension is not only important in the educational environment, i.e. in educational texts.

It is also one of the factors that must be taken into account in media texts – news, important information, analyses, or other texts. Understanding vs. misunderstanding of media texts is related to a purposeful processing of information, deeper level of text analysis, understanding of concepts, perception of contexts, and it helps strategic and critical thinking. These characteristics are specific on the part of the recipient, and they stand in contrast with the text itself (and its author, see Mikuláš 2011) and its properties. In addition to the genre, it is also its specific characteristics, among which *text difficulty* is particularly important. The available sources do not present a uniform terminology (conf. *difficulty* and *readability*: Benjamin 2012; Kauchak, Leroy, Hogue 2017; Wright, Stenner 2022 and others). A detailed overview of the above and other related concepts was carried out by Augustín Sokol and Jana Sokolová (2022), research collaborators in the project, which also includes the present study. They identified *text difficulty* and *text readability* in greater detail as a reflection of the “*properties resulting from the relationship between the text and the addressee*” (Sokol, Sokolová 2022: 71). According to the above authors, the attributes of *text difficulty* and *degree of complexity* can be perceived as two fully complementary expressions, and *text readability* as a communication parameter of text (ibidem). The latter attribute is defined by comprehension at the level of cognitive activity and at the level of identification activity as the apperception of text (ibidem).

To quantify the above variables, modern scientific literature offers a considerable number of procedures (Rebekah George Benjamin (2022) reports a value close to one hundred). In principle, most of them mainly take linguistic parameters into consideration. In their synthesis, Augustín Sokol and Jana Sokolová (2022) mainly identified the following features in the patterns: word length and sentence length; word count; and degree of repeatability of linguistic means. The indices also included the calculations of the number of sentences and the percentage representation of long words in the sentence. The above parameters put the index in mutual relations and some indices show significant similarity. For example, according to the index calculation method, the Gunning Fog Index is calculated as the sum of the average number of words in a sentence and the percentage of long words from the total number of words.

Likewise, the Björnsson Index (1968) is the sum of the average sentence length and the percentage of long words. These mathematically render an identical result. In addition, well-crafted software is available, which is capable of calculating the results with high accuracy even for Slovak versions of texts.

The approach of Emilio Matricciani (2023) from the field of cognitive psychology with an interface to communication theory and linguistics, which takes into account the capacity of short-term memory (referred to as IP) identified by the number of words between two inter-word connections, is also of note. The formula is currently subject to further verification.

In addition to the quantifiers of text difficulty, the procedures identifying the perceived difficulty or comprehensibility of media texts by their recipients, as well as various visual contexts of the text, are also worth mentioning. For example, in Agnieszka Ogonowska and Agnieszka Walecka – Rynduch's (2024) research, the respondents (young adults) reported significant problems with texts that were not illustrated and only contained text in a set of 100–150 words-long media snippets from the web. Technoskepticism can also become a hurdle, which, as demonstrated by Łukasz Tomczyk, et al. (2017, 2022), reaches different intensity across the compared countries.

The above facts inspired us to formulate the aims of our project with the intention of investigating the differences in the comprehension of print and digital texts in the age cohort of young adults in tertiary education.

Research objectives and problems

The main research objectives (C) are to: (C1) find out whether there are significant differences (if any, of what nature) in the comprehension of print and digital texts in the selected age cohorts, and (C2) identify the links between text difficulty and text comprehension.

VP1: Is there a significant difference in the comprehension of print and digital media texts in the selected age cohort?

VP2: Is there a significant correlation between the comprehension of a media text and its difficulty in the selected age cohort?

VP2.1: in the case of a printed version of the text?

VP2.2: in the case of a digital version of the text?

To solve the formulated research problems, a descriptive-mapping and correlational research plan was put together using a standardized method, which is tailored to the digital environment.

Population and sample

The population consisted of 130,739 (Statistical yearbook 2021–22: 166–167) university students. (When determining the population, we relied on the statistical yearbook available at the time of research planning). Based on the above, the required sample size is $N_{pvp} = 383$ (Conf L 95%, Conf I 0.05). The research was conceived more broadly and the preliminary data from two universities in Slovakia (Constantine the

Philosopher University in Nitra and University of St. Cyril and Methodius in Trnava) are presented for the purposes of this paper. We tested a total of 486 respondents, however, the respondents who did not participate in both measurements (digital and print versions of the test) were excluded from the analyses when completing the data. Only 173 respondents (121 women and 52 men) with an average age of 21.82 years ($sd=2.87$ years) met the participation criteria for both measurements. From a methodological point of view, the aforementioned did not allow to fully comply with all the planned parameters of the research sample (sample size and gender representation), therefore in the study we look at the data as preliminary and pre-research, and in the interpretation, we perceive these limitations leading to reduced possibilities of generalization of the findings.

Method

To identify and measure the **text comprehension** variable, we chose a standardized method, namely the **verbal substest of the Managerial Assumptions Test** (Blinkhorn, altered: Kollárik et al. 1993). The original version is available in print form (a pencil-paper test type). We implemented the digital version in Moodle (at UKF <https://edu.ukf.sk/> and FMK <https://moodle.ucm.sk/> – for the test was identical for both universities and it was paginated similarly to the print version). In the digital version, the respondents themselves chose the device to do the test (computer, laptop, tablet, etc.), which may be viewed as an intermediate variable. Each page of the test contained one short media text and three statements that the respondents evaluated based on the text (true, false, cannot say). The respondents performed a practice run before testing. The test contained 15 media texts (ranging from personal and political to economic) and a total of 60 items. The time limit was 30 minutes. Each of the 15 texts contained approximately 100 words (95.77 in Version A and 101.13 in Version B); the average character count in Slovak was 695 (Version A) and 692 (Version B). The detailed parameters are presented in tables in Appendix 2 and 3. The success rate in the tests is not dependent on any specific knowledge or technical skills. The test is focused on verbal comprehension, but it also reflects the ability to think critically (it is partly based on the Watson-Glaser Critical Thinking Assessment). It determines whether the test subjects are able to combine their abilities with practical judgment. The test has two parallel/equivalent Versions A and B. We worked with raw scores in our analysis. We used an intra-subject experimental research design for data collection to reduce the effects of transfer, learning and ordering in which the test versions (A, B, print and digital) were administered.

Before the actual testing, the respondents filled out a short **questionnaire** with their demographic data (age, education, gender, estimate of own performance). After the test, the respondents were also offered the chance to voice their opinions through an open-ended question and state the factors that, in their view, could have positively or negatively affected their performance. Since this research is conceived more broadly, the above does not apply to this study, and is not included in the research questions or analyses within the presented study.

To identify and measure the **text difficulty** variable, we used the Björnsson Index (Björnsson 1968) LIX (an abbreviation of the Swedish *läsbarhetsindex*, or “readability index”) (Björnsson 1968), which uses the formula: $LIX = Lm + Lo$) where “Lm” is the average sentence length (formula: $Lm = O / M$) and “Lo” is the percentage of long words (more than 6 letters long) with the formula $Lo = L / O * 100$. In the above formulas, the “O” character indicates the number of words, “M” the number of sentences and “L” the number of words with more than 6 characters. The word variability index and the word variability ratio (the data are presented in Appendix 2 and 3) is used as supplementary data. Carl-Hugo Björnsson (1968) suggests the following interpretation of the index values: (i) < 30 very easy-to-read texts, (ii) 30–40 easy-to-read texts (e.g. also popular magazines), (iii) 40–50 moderately difficult texts (e.g. ordinary newspapers), (iv) 50–60 difficult texts (typical of official materials) and (v) > 60 extremely difficult texts (Björnsson 1968).

The results were processed in Excel and SPSS statistical software.

Analysis and interpretation of research results and discussion

The comparison of average performance scores from the digital and print versions indicates that the respondents performed better in the digital version of the test. The results are presented in Table 1 with the help of descriptive statistics. The table indicates that the standard deviations are relatively significant in both cases, which indicates a higher inter-individual variability in the performance of the test subjects. Taking into account the fact that these are university students, higher homogeneity of the above metric is expected.

Table 1. Average performance of the respondents in the comprehension of print and digital versions of media texts. Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Print	25.9480	173	7.35105	,55889
	Digi	26.8092	173	6.43243	,48905

Paired Samples Statistics

Source: own research, processed in SPSS.

Table 2. Comparison of average performance of the respondents in the comprehension of print and digital versions of media texts. Paired Samples Test

		Paired Differences							
Pair 1	Print - Digi	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
					Lower	Upper			
		-,86127	7.65866	,58228	-2.01060	,28806	-1.479	172	,141

Paired Samples Test

Source: own research, processed in SPSS.

However, the statistical comparison of performances in the comprehension of short media texts shows that the detected differences are insignificant (answer to VP1) and there is no difference in the comprehension of print and digital media texts. These data do not correspond with the findings of authors favoring printed texts (Mangen et al. 2013; Godwin et al. 2019), nor with Carla Viana Coscarelli's (2011) research, which is in favor of hypertexts, or the more recent research by Lauren Eutsler, et al. (2020), which is in favor of digital texts. Our findings also contradict the research results on a comparable set of undergraduate students, which was conducted by Semin Kazazoğlu (2020), who found that the students reading the texts in printed form were significantly more successful in understanding the content than those who read the materials in digital form. On the contrary, our findings are in line with the results presented by Pablo Delgado and Ladislao Salmerón (2022). The participants of the study achieved a similar performance in all evaluated factors of text comprehension and in all investigated media. The only significant difference between the printed and on-screen version of the text was in remembering its title. Although the comprehension scores were slightly higher for print, the difference only barely approached the significance level.

The above differences can be caused by several factors related to different age groups, language environments, levels of reading ability, text types (more textual than visual), degree of familiarity with the subject matter of research, but also the methods used to measure the comprehension of text. Plus, a certain time shift is also worth noting – it is entirely possible that the respondents in our population are the so-called “post-pandemic” students who have experienced a dramatic transition in education from the use of classic texts in mostly printed textbooks to working with electronic materials. Therefore, they are equally proficient (or not) in working with classic text formats as well as with their digital variants.

In the subsequent analysis, we focused on identifying the links between the selected text parameters – text difficulty (sometimes referred to as readability) and text comprehension. As indicated above, there are several ways to identify this parameter. We also stated the reasons for choosing the Björnsson Index (1968). The basic data of this index for the texts in Variant “A” and “B” of the media text comprehension test are presented in Appendix 2 and Appendix 3. As can be seen from the table, the test also includes texts that can be classified as difficult (score 50–60), however, extremely difficult texts (score above 60) prevail. There was only one medium difficulty text in each version. It is recommended that media texts be written at this very level (score 40–50). The author of the test does not state in the manual whether their difficulty was taken into account in the selection process.

Table 3 presents the descriptive statistics of the monitored performance ranges according to the test version (A and B) and type (print and digital), as well as the information on the values of the Björnsson Index (1968). The indices of Version A and B are comparable, i.e. text readability and/or difficulty is similar.

Table 3. Average values of text difficulty and text comprehension in the entire set of respondents (presented according to test versions)

Descriptive Statistics							
	Mean	Std. Deviation	N		Mean	Std. Deviation	N
LIX_A	63.2000	8.34266	15	LIX_B	63.7333	9.15319	15
VerA	1.8065	,50765	15	VerB	1.8147	,44027	15
VerA_digi	1.8707	,52471	15	VerB_digi	1.9636	,42399	15
VerA_print	1.7587	,58167	15	VerB_print	1.7027	,51166	15

Legend: LIX = Björnsson Index, VerA or VerB = test versions; digi = test administered digitally, print = test administered in printed form (pen-and-paper test)

Source: own research, processed in SPSS.

Table 4. Correlations between the mean values of text difficulty and the respondent's performance in the field of text comprehension

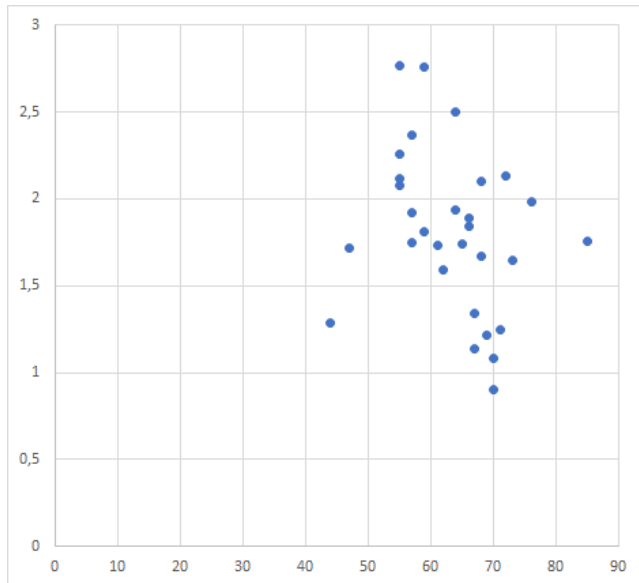
Correlations		LIX_A	VerA	VerA_digi	VerA_print		LIX_B	VerB	VerB_digi	VerB_print	
LIX_A	Pearson Correlation	1	-,167	,048	-,322	LIX_B	1	-,389	-,321	-,378	
	Sig. (2-tailed)		,551	,865	,241			,151	,243	,165	
	Sum of Squares and Cross-products	974.400	-9.921	2.949	-21.895			1172.933	-21.966	-17.466	-24.771
	Covariance	69.600	-,709	,211	-1.564			83.781	-1.569	-1.248	-1.769
	N	15	15	15	15			15	15	15	15

Legend: LIX = Björnsson Index, VerA or VerB = test versions; digi = test administered digitally, print = test administered in printed form (pen-and-paper test)

Source: own research, processed in SPSS.

Table 4 presents the results of statistical testing of the relationship between the observed variables in detail. The data show that there are no significant correlations between text readability/difficulty and the respondents' performance in the comprehension test (VO2). Thus, the higher level of text difficulty is not related to the level of text comprehension although the values of the correlation coefficients indicate that difficult texts may lead to lower scores in text comprehension (negative "r" values), but this is not statistically substantiated.

This result can be explained by text length – the texts selected for the tasks were relatively short and did not overload the working memory of the respondents, and even the difficult ones were constantly available to the respondents who could easily return to the questionable parts when answering the test questions. The lower number of respondents, as well as the number of evaluated texts (15 for each variant of the test) also probably played a role.



Graph 1. Visualization of the comparison of text difficulty and text comprehension (in the entire population of respondents)

Legend: the “x” axis shows the values of the Björnsson Index (1968) for all texts (Version “A” and “B” of the test, i.e. 30 texts), the “y” axis shows the average performances in the entire population of respondents according to individual texts.

Source: own research, processed in MS Excel.

Research limitations

The presented outputs are the results of preliminary data. In the next research phase, we will refine the procedures and incorporate some modifications regarding the research design. We will also be based on the recorded limits of preliminary research. The low volume of the sample coupled with its composition (a predominant representation of women over men) should be perceived as a significant limitation of the research. Another limiting factor is the lacking uniformity of digital devices that were used by the respondents to access the digital version of the test; on the other hand, the conditions for the print version (printout size, font size, same background) were uniform. Motivation also remains an open issue – not all respondents filled out the tests with the same degree of involvement and effort – which was noted especially when measuring the time to answer the test questions. It turned out that not everyone took full advantage of the time limit, and some turned in their answers early. We noted the above both in the print and digital version, and since this phenomenon can also be observed in other tasks and may reflect the cognitive limits of the respondents (the tasks that the respondents cannot solve are left behind and no time is spent to find the solution), we did not filter out such respondents from the set. Also, the respondents showed varying levels of interest in the texts, so even the topical

compatibility with their interests could have played a role in their performance (yet another intervening variable). Typically, the texts were considerably diversified, it is therefore expected that each of the respondents perceived some as interesting and others as less interesting. These facts could have had an impact on the fluctuating performance in text comprehension. It would be certainly interesting to identify the links (or correlation) between the degree of text comprehension and the respondents' areas of interest. All the suggestions for improvement mentioned above will be implemented in the main phase of the research project.

Conclusions

Although the findings presented above can't be generalized due to the population size, we can state with a certain amount of caution that the degree of comprehension of short media texts is not related to their difficulty. This means that even the relatively difficult texts can be understood by junior university students in the same way as easier texts – and conversely – even the relatively easy texts may not always lead to a high level of comprehension among the university students. The complexity of short texts does not make them difficult for the readers to understand. With a certain degree of uncertainty, misinterpretations and/or misunderstanding of short, albeit complex texts, does not need to be attributed to the cognitive disposition of the recipients, and extracognitive factors should be considered instead.

The results also suggest that the performance in the area of media text comprehension is not related to the form (print vs. digital) in which the respondents receive the content in the age category of young adults. Some research studies (Mangen et al. 2013; 2010; Singer et al. 2017) favored printed over digital texts, relying on the positive effect of multisensory stimuli for stimulating the cognitive inputs in reading and comprehension. However, it is possible that the research studies are not completely coherent in connection with the age of the respondents and their ontogenetic specificities.

We consider these findings to be the direction in which further outputs can be expected after we expand our research set or replicate the research on a representative and sufficiently large population. Our ongoing research activities will show whether these assumptions hold true.

At the same time, it seems that it will be necessary to stratify the selection according to the regions of Slovakia (and extend the research to other countries as well) and ensure an equal representation of respondents according to gender. The need to expand the population to include the respondents outside the field of tertiary education is also encouraging. We are also considering the inclusion of respondents from other age groups. Within the next phase of our research, we are planning to enrich our tests with significantly longer texts and study their comprehension to reflect the typical range of an average news article in the media.

The understanding of factors related to the comprehension of media texts can contribute to increasing the effectiveness of media communication and preventing the misinterpretations in the media space.

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Appendix 1

Average values of the LIX readability index and average performance of respondents in the text comprehension texts, Version “A” and “B” (both in print and digital form). The data are supplemented by the values of standard deviations of the respondents’ performance average.

	Readability index (LIX = Lm + Lo)_B	AM_B Print	sd_B Print	AM_B Digi	sd_B Digi	Readability index (LIX = Lm + Lo)_A	AM_A Print	sd_A Print	AM_A Digi	sd_A Digi
Text 1	69	1.17	1.00	1.28	0.968	55	2.40	0.97	2.13	0.90
Text 2	66	1.85	0.97	1.94	1.106	72	2.19	0.99	2.08	1.04
Text 3	68	1.64	0.92	1.71	1.009	57	2.01	1.19	1.51	0.95
Text 4	57	1.87	1.10	1.99	1.044	61	1.74	1.03	1.71	0.90
Text 5	55	2.19	0.88	2.05	1.042	44	1.35	0.88	1.24	0.93
Text 6	85	1.63	0.86	1.91	1.041	59	1.82	0.92	1.80	1.02
Text 7	66	1.90	1.13	1.77	0.847	70	1.12	0.88	1.05	0.88
Text 8	64	2.63	0.96	2.35	1.017	64	2.11	0.97	1.77	0.92
Text 9	47	1.56	0.88	1.91	0.906	57	2.30	0.93	2.45	0.96
Text 10	55	2.63	1.33	2.93	0.884	59	2.86	1.23	2.66	1.00
Text 11	67	0.96	1.02	1.38	1.126	68	1.87	1.24	2.35	0.98
Text 12	55	1.84	1.33	2.39	1.153	76	1.64	1.31	2.33	1.02
Text 13	67	1.12	1.03	1.61	0.878	71	0.99	1.02	1.55	0.87
Text 14	62	1.39	1.52	1.86	1.125	70	0.80	1.10	1.03	0.79
Text 15	73	1.16	1.36	2.38	1.027	65	1.19	1.49	2.41	1.22

Source: own research, processed in Excel.

Appendix 2

Parameters identified in the media texts in Version A of the text comprehension test.

Version A	Practice text	Text 1	Text 2	Text 3	Text 4	Text 5	Text 6	Text 7	Text 8	Text 9	Text 10	Text 11	Text 12	Text 13	Text 14	Text 15
Number of sentences (M)	8	7	7	6	5	7	4	6	9	8	8	7	5	6	5	6
Word count (O)	111	108	94	95	97	102	67	108	111	111	94	117	88	87	91	106
Word count of words with more than 6 characters (L):	51	43	55	39	40	30	28	56	57	48	44	60	51	49	47	50
Average sentence length (Lm = O / M)	13.88	15.43	13.43	15.83	19.4	14.57	16.75	18	12.33	13.88	11.75	16.71	17.6	14.5	18.2	17.67
Percentage of long words (Lo = L / O * 100)	45.95	39.81	58.51	41.05	41.24	29.41	41.79	51.85	51.35	43.24	46.81	51.28	57.95	56.32	51.65	47.17
Readability index (LIX = Lm + Lo)	60	55	72	57	61	44	59	70	64	57	59	68	76	71	70	65
Word variants Type-Token Ratio (TTR) (%)	81.98	77.78	78.72	87.37	76.29	79.41	85.07	87.04	79.28	81.98	82.98	88.03	86.36	77.01	89.01	81.13
Word Variability Index (OVIX)	113.98	89.55	88.54	155.8	79.59	95.08	111.5	160.2	97.86	114	112.9	180.3	139	78.56	177	106.3
Word Variability Ratio (OVR) (%)	95.78	94.63	94.73	97.03	94.08	95.02	96.16	97.03	95.07	95.78	95.89	97.32	96.73	94.15	97.42	95.52
Characters including spaces (word)	739	736	718	642	632	624	449	794	779	731	663	886	642	665	672	751
Words	111	108	95	95	97	102	67	108	111	111	94	117	88	87	91	106

Source: own research, processed in Excel.

Appendix 3

Parameters identified in the media texts in Version B of the text comprehension test.

Version B	Practice text	Text 1	Text 2	Text 3	Text 4	Text 5	Text 6	Text 7	Text 8	Text 9	Text 10	Text 11	Text 12	Text 13	Text 14	Text 15
Number of sentences (M)	8	3	9	4	8	7	3	6	6	8	7	4	7	6	7	7
Word count (O)	111	99	111	96	102	100	88	97	105	98	107	100	89	101	117	97
Word count of words with more than 6 characters (L):	51	36	60	42	45	41	49	48	49	34	43	42	38	51	53	57
Average sentence length (Lm = O / M)	13.88	33	12.3	24	12.75	14.29	29.33	16.7	17.5	12.3	15.3	25	12.7	16.8	16.7	13.9
Percentage of long words (Lo = L/O * 100)	45.95	36.36	54.05	43.75	44.12	41	55.68	49.48	46.7	34.7	40.2	42	42.7	50.5	45.3	58.8
Readability index (LIX = Lm + Lo)	60	69	66	68	57	55	85	66	64	47	55	67	55	67	62	73
Word variants Type-Token Ratio (TTR) (%)	81.98	74.75	81.08	80.21	80.39	79	84.09	81.44	76.2	69.4	79.4	82	80.9	76.2	80.3	84.5
Word Variability Index (OVIX)	113.98	74.82	108.1	96.73	100.3	92.25	117.92	104.23	82	59.8	97.2	109	97.3	80.8	106	127
Word Variability Ratio (OVR) (%)	95.78	93.67	95.55	95.17	95.28	94.88	96.13	95.51	94.2	92	95.1	95.7	95.3	94.1	95.4	96.3
Characters including spaces (word)	739	637	815	594	652	653	661	667	735	628	717	687	607	740	798	742
Words	111	99	111	96	102	100	88	97	105	98	107	100	89	101	117	97

Source: own research, processed in Excel.

Summary

The purpose of this article is to identify differences in the comprehension of print and digital media texts among young adults. This is due to the paradigm of transactional communication models (Yaros 2009 et al.), which assumes interaction between the medium and the audience, which corresponds to current changes in the media environment (Herkman 2008) and the accelerated digitization of mass media. The discussion of interaction with electronic texts and hypertexts (Singer 2017; Mangen 2013; DeStefano 2007 and others) opens up new research horizons and topics. Researchers from abroad (Norway, UK, etc.) have reported conflicting results regarding the level of comprehension of print and digital media texts, due to the length of the text, type of digital medium, target groups, etc. The recent COVID-19 pandemic has highlighted the importance of digital communication in both media and other areas (education). In order to solve the formulated research problems, a descriptive-mapping and correlation research plan was developed, using a standardized method adapted to the digital environment. A total of 486 respondents were surveyed, 173 of whom met the criteria for participation in both measurements, with an average age of 21.82. The results (compiled using MS Excel and SPSS software) show that there is no difference in the level of comprehension of media texts presented in print and digital form. At the same time, we found that although the values of correlation coefficients indicate that a higher level of text difficulty can lead to lower text comprehension scores (negative “r” values), a higher level of text difficulty is not related to the level of text comprehension. The results are discussed, not only limitations but also broader contexts (e.g., non-cognitive factors) are considered, and some implications for media practice and education are proposed.

Słowa kluczowe: komunikacja; zrozumienie; cyfrowość; media; wskaźnik czytelności; tekst

Keywords: communication; comprehension; digital; media; readability index; text

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