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CYBERBULLYING – SOCIODEMOGRAPHIC AND LANGUAGE AND COMMUNICATION PERSPECTIVE

Abstract

The subject matter of this article is the disclosure and recognition of the issue of cyberbullying among young people at school, taking into account sociodemographic and language-based communication conditions of this phenomenon. The authors' scientific research was a reason for reflection. It results in the conclusion that the problem of cyberbullying exists, regardless of the severity of variables such as age, gender, place of residence and that it is socially important.

Therefore, we postulate educating young people about the consequences of linguistically aggressive behaviours in cyberspace, developing their communication skills and educating them in the aura of wisdom and respecting a safety culture.

Key words

cyberbullying, verbal aggression, communication

Introduction

Language is a tool of communication, a "house of existence"[1], however – as the linguist Michał Głowiński warns – it can also be a "foundation for the factory of destruction".[2]

Verbal aggression should be the first alarming signal of the threat to the safety of its addressees, argues the above-mentioned humanist, citing the experiences of World War II.[3] Following the same reasoning: verbal aggression on the web (as a manifestation or realization of cyberbullying) should be the first alarming signal of threat to the safety of its recipients in this, let's call it, space appropriate to our times.

Therefore, cyberbullying is rightly becoming the subject of research in many disciplines, the concern of a very diverse scientific view.

The aim of this work is to reflect on its sociodemographic and communication-language conditions. The reason for this was the study carried out by the authors.

Cyberbullying and verbal aggression – theoretical findings

There are many definitions of the term "cyberbullying" in the subject literature. It's the same with verbal aggression. Therefore, we will present how we will comprehend these terms using them in this article.

Cyberbullying

Synonymous terms such as: "cyberstalking" (cyberbullying), "cyberharassment" (cyberbullying)[4], "virtual aggression", "electronic aggression", "cybermobbing", "electronic mobbing", "cyber violence" are used to describe cyberbullying.[5] The term used in English-speaking sources is "cyberbullying", which is defined as: "*intentional aggressive behaviour of an individual or group, using electronic forms of contact, undertaken long-term and repeatedly against a victim who is weaker than the perpetrator physically, mentally, socially*".[6] In Polish-language literature, the phenomenon in question is described as: cyberbullying or electronic aggression.[7] Łukasz Wojtasik defined "cyberbullying" as "*the use of information and communication techniques to conscious, repeated and hostile behaviour of a person or a group of*

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1 „Language is the home of existence" - one of the well-known statements of the German philosopher Martin Heidegger, who claimed, that the highest purpose of language is the production of one's own world. See: M. Heidegger, *Objaśnienia do poezji Hölderlina,* tłum. S. Lisiecka, Warszawa 2004, p. 43.

2 U. Sharpe, *Język, którym mówi dzisiejsza władza, jest ideologiczny. Wywiad z Michałem Głowińskim,* „Adeptus. Pismo Humanistów" 2020, No 15, p. 2.

3 Ibidem.

4 Ł. Wojtasik, *Przemoc rówieśnicza z użyciem mediów elektronicznych – wprowadzenie do problematyki,* „Dziecko Krzywdzone" 2009, No 1(26), p. 7–11.

5 A. Chodorowska, *Cyberbullying jako forma przemocy w cyberprzestrzeni* [in:] *Patologie w cyberprzestrzeni. Profilaktyka zagrożeń medialnych*, scientific ed. D. Morańska, Dąbrowa Górnicza 2015, p. 194–195.

6 P. K. Smith, J. Mahdavi, M. Carvalho, p. Fisher, p. Russell, N. Tippet, *Cyberbullying: its nature and impact in secondary school pupils,* „Journal of Child Psychology and Psychiatry" 2008, vol. 49 (4), p. 376–385.

7 Ł. Wojtasik, *Przemoc rówieśnicza…,* p. 7.

people aimed at hurting others".[8] In turn, Jacek Pyżalski postulated not to identify the concept of "electronic aggression" with the term "cyberbullying". According to him, electronic aggression is "a collection of all acts of aggression with the implementation tool of a mobile phones or the Internet".[9] Thus, the scope of the cited concept is broader than the term – cyberbullying as it refers to all behaviours causing a victim's suffering[10].

Verbal aggression in communication

Referring to the "cyberbullying" defined above and recalling that its essence is determined by: the electronic form of contact, intentionality and aggressiveness, we will add that the latter may manifest itself, among others, in language activities. Hence – created by adding to the word: aggression of the specifying adjective – the term: verbal aggression (in other words vocal, linguistic). Following Joanna Smól we will call linguistically aggressive "all statements testifying to the enemy, aggressive attitude of the speaker"[11] towards the recipient.

Complementing the above findings of Alicja Witorska, it can be said metaphorically that verbal aggression will be an intrusion into someone's territory (even emotional) against their will to achieve specific goals.[12]

Verbal aggression can manifest itself on several levels: phonological, lexical and grammatical. The present research covers the last two levels, as the respondents were asked predominantly about communication via the Internet in a written form.

The basic types of verbal aggression are:
– direct aggression, in which there are messages of the following nature: harassing (e.g. scaring); harmful (providing false information); degrading (e.g. calling names);
– indirect aggression, which includes messages of the following nature: aggressive (encouraging aggression); harmful (e.g. complaining); degrading (unjustified claims).[13]

Other researchers also distinguish allusive, hidden, masked aggression.[14]

The manifestation of aggression is also talking about someone behind their back, gossiping and manipulating facts or keeping them silent. In addition, criticizing, lecturing and humiliating the other person is an inherent component of verbal aggression.

To conclude the terminological arrangements, let us add that for stylistic reasons, i.e. in order to avoid repetition, the phrase "verbal aggression" will sometimes be replaced by the word "cyberbullying" or "electronic aggression" in this article.

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8   Ibidem, p. 8.

9   J. Pyżalski, *Agresja elektroniczna wśród dzieci i młodzieży,* Sopot 2011, p. 41.

10   J. Pyżalski, *Agresja elektroniczna dzieci i młodzieży – różne wymiary zjawiska,* „Dziecko Krzywdzone" 2009, p. 14.

11   J. Smól, *Agresja w wypowiedziach muzyków rockowych* [in:] A. Dąbrowska, A. Nowakowska (ed.), *Język a Kultura.* Vol. 17: *Życzliwość i agresja w języku i kulturze,* Wrocław 2005, p. 252.

12   A. Witorska, *Co to jest agresja? Studium semantyczne* [in:] A. Dąbrowska, A. Nowakowska (scientific ed.), *Język a Kultura.* Vol. 17: *Życzliwość i agresja…,* p. 148–149.

13   W. May, *Geneza zachowań agresywnych,* „Wszystko dla Szkoły" 2011, No 6, p. 9–12.

14   Zob. M. Majewska, *O implikaturowym i presupozycyjnym przemycaniu treści deprecjonujących odbiorcę* [in:] A. Dąbrowska, A. Nowakowska (scientific ed.), *Język a kultura.* Vol. 17: *Życzliwość i agresja…,* p. 155–161; L. Pisarek, *O nieżyczliwych zachowaniach językowych (listy i liściki anonimowe)* [in:] A. Dąbrowska, A. Nowakowska (ed.), *Język a kultura.* Vol. 17: *Życzliwość i agresja…,* p. 203.

Basics and methods of research

The **aim** of the study was to reveal and recognize sociodemographic and language and communication variables leading to cyberbullying among young people at school (middle school and older classes of primary school).

A multilateral analysis of this phenomenon, with a view to even counteracting it, seems to be a socially useful and even desirable activity.

Hence we are more encouraged to formulate **the main research problem**, which can be reduced to the question of what sociodemographic and language and communication conditions contribute to the implementation of electronic aggression by Gimnazjum students?

The specific and unique nature of the issues referred to means that the specific problems resulting from the main research concern are as follows:

1. Are there statistically significant differences between age and the use of cyberbullying?
2. Are there statistically significant differences between gender and the use of cyberbullying?
3. Are there statistically significant differences between the place of residence and the use of cyberbullying?
4. Are there statistically significant differences between the family structure and the use of cyberbullying?
5. How is the relationship between the type of linguistic aggression perceived as the most severe and the type of aggression applied to others shaped?

6. How is the relationship between recognizing a given information exchange channel as more suitable for transmitting abuse, insults, etc. and using it for the purposes shaped?
7. How is the relationship between being a victim and becoming a perpetrator of electronic aggression?

Therefore, we assume that sociodemographic variables such as age, gender, place of residence, and family structure may be related to the use of cyberbullying.

Furthermore, we presume that:
– recognizing a particular type of linguistic aggression **as** the most severe has the effect of applying it to others;
– "lightness", the effortlessness of "sending" aggressive messages through a specific communication channel translates into the frequency of its use;
– becoming a victim can contribute to being the perpetrator of electronic aggression.

In order to verify the probability of the assumed state of matters, auditorium research was carried out among school youth (middle school and older grades of primary school). The author's questionnaire was implemented. It consisted of 25 questions concerning psychological and sociodemographic conditions as well as language and communication manifestations of the use of electronic aggression.[15]

The selection of the research sample was intentional (layered). The determination of the representative sample was based on the condition of primary and lower secondary school students in 2018/2019 – 3,390,355 people.

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[15] Part of the research was used to prepare the article: A. Szołtek, M. Przetak, *Cyberbullying, czyli agresja elektroniczna w komunikowaniu się młodzieży szkolnej – konteksty psychologiczne i językowe* [in:] *Bezpieczeństwo w cyberprzestrzeni. Społeczna przestrzeń Internetu w kontekście wartości i zagrożeń*, (ed.) M. Koziński, V. Streltsov, p. Kosznik-Biernacka, Słupsk-Charków 2019, p. 107–143.

333 people participated in the study: 178 girls (53.45% of respondents) and 152 boys (45.65% of respondents). The average age of the surveyed was 15. Persons attending lower secondary school accounted for 73% and primary school students for only 27%. In terms of place of residence, the respondents represented: the village (34.83%), a town (42.94%) or a city (21.92%).

To calculate the coefficient of variation, a statistical analysis of interdependence based on the Spearman rank correlation coefficient for qualitative features as part of a questionnaire used.

Results and discussion

Conducting the research allowed to obtain certain data, which were then subjected to statistical analysis.

Sociodemographic determinants of cyberbullying

Table 1 presents descriptive statistics showing youth responses related to the use of cyberbullying.

Tab. 1 The use of cyberbullying by youth

Question 14 of the survey: „Have you ever, even as a joke or as a result of boredom, used any of these behaviours?"	I Total	II Percent-age	III Mode	IV Typical Average	V Average deviation	VI Coefficient of variation in %
a) harassment and bullying	9	2,7%				
b) frightening (threatening, intimidating)	27	8,11%				
c) network blackmail	5	1,5%				
d) publishing or sending out ridiculous...	24	7,21%				
e) impersonate someone against their will, plotting intrigue	21	6,31%		50,33	54,44	108 % very high variability
f) insulting (use of vulgar words)	108	32,43%				
g) mocking, jeering humiliation	59	17,72%				
h) spoiling the opinion of others	21	6,31%				
I have not used any of these behaviours	179	53,75%	I have not used any of these behaviours			

Source: own research.

Among the respondents, as many as 179 people (53.75% of the total respondents) replied that they did not use cyberbullying. Girls had the largest share in the responses (28.84%). Except for determining the frequency of using electronic aggression, it was reasonable to analyze the frequency of individual forms of it. And so, the most numerous manifestation of it was insulting on the Internet, such an answer was provided by 108 people (32.43% of the total respondents). It was committed by 19.01% of boys and 13.42% of girls. The second most frequent response referring to the form of cyberbullying was jeering, committed by 59 people (17.72% of the total respondents). In case of this form of cyberbullying, women (11.83%) admitted to its more frequent use than men (5.89%). The youth influenced others on the Internet by intimidating or threatening. Such a form of electronic aggression was committed by 27 persons (8.11% of the total respondents; including 6.72% of girls and 1.39% of boys). In turn, 24 people (7.21% of the total respondents) replied that they published or sent out ridiculous and compromising information, photos, videos using the network. The frequency of these behaviours was comparable by gender (females – 3.91%; males – 3.3%). Young people with the intention of harming others via the Internet were willing to impersonate someone against their will and the above behaviour was committed by 21 people (6.31% of the total respondents; including 2.58% of women and 3.73% of men). The same number of indications was recorded in case of spoiling the opinions of other people (6.31% of the total respondents, including 4.71% of girls and 1.6% of boys). Of the respondents, 9 people (2.7% of the total respondents, including 2.3% of boys and 0.4% of girls) replied that they had harassed and persecuted others online. The last type of electronic aggression which the respondents were asked about was blackmail using the network, 5 people committed this form of aggression (1.5% of the total respondents; including 1.3% of men and 0.2% of women).

Summing up the obtained statistical data, it is worth mentioning that the answers given to the question related to the use of electronic aggression represented a very high volatility (108%), deviated from the dominant answer to a significant degree. This, among others, results from the ability of the respondents to indicate a number of answers.

Apart from examining the frequency of use, correlation coefficients between independent variables and the dependent variable were calculated in order to justify the implementation of cyberbullying by youth (Table 2).

Tab. 2. Correlations between independent variables (age, gender, place of residence, family structure) and the dependent variable – the use of cyberbullying.

Question	Have you ever used any of the above-mentioned behaviours, even if just for fun or boredom?
Age	-1 VI*
Gender	-1 VI
Place of residence	-1 VI
Family structure	-1 VI

* I – no correlation, II – correlation – moderate, III – significant correlation, IV – high correlation, V – very high correlation, VI – total correlation

Source: own research.

The verification of the adopted research hypotheses was aimed at checking the relationship between statistically significant sociodemographic variables and the use of cyberbullying.

The first variable analyzed in the interdependence study was age. It was found that the negative relationship between the correlated variables, which means that the forms of cyberbullying used are more dangerous with age. The respondents admitted to: harassment, persecution, threatening, blackmailing, publishing ridiculous information. The analysis of the coefficient of variation of the feature confirmed the described relationship. On the other hand, younger respondents used milder forms of cyberbullying: spoiling opinions, insulting or not using them.

The conducted statistical analysis allowed to answer the question referred to the study of the relationship between gender and the use of cyberbullying. A negative correlation between the above variables, amounting to -1, was demonstrated. As the independent variable increases, the dependent variable decreases. The closeness of the relationship between the studied features is complete. It should be pointed out that the forms of cyberbullying implemented by boys were more dangerous, because they committed: harassment, persecution, threatening, blackmailing, publishing ridiculous information. The analysis of the coefficient of variation of the feature also confirmed the described relationship. On the other hand, girls most often used milder forms of cyberbullying or did not use it.

Another variable taken into account in the study of variability was the place of residence. There was a clear correlation between the place of residence and cyberbullying. Interdependence was defined at level -1. As the independent variable increases, the dependent variable decreases. The closeness of the relationship between the studied features is complete. It should be noted that the larger the population – a city with more than 50,000 inhabitants, the more dangerous the forms of cyberbullying used by Gimnazjum students were. The methods were harassment, persecution, threatening, threatening, blackmailing, publishing ridiculous information. The analysis of the coefficient of variation of the feature also confirmed the described relationship. On the other hand, youth living in the countryside most often used the mildest forms of cyberbullying or did not use it at all.

In order to verify the hypothesis related to the relationship between the family structure and cyberbullying, a correlation coefficient was calculated. The interdependence between the correlated variables was noticed and positioned at the level of -1. As the independent variable increases, the dependent variable decreases. The closeness of the relationship between the tested features is complete. It should be indicated that Gimnazjum students from full families used more dangerous forms of cyberbullying, such as harassment, persecution, threatening, scaring, blackmailing, publishing ridiculous information. On the other hand, students from foster families or from children's homes most often used milder forms of cyberbullying or did not use it.

Communication and language determinants of cyberbullying

The relationship between the type of linguistic aggression perceived as the most severe and the type of aggression applied to others

Let us recall, it was assumed that the relationship indicated in the title of the subsection exists and that it consists in the fact that by perceiving one of the forms of verbal aggression as the most severe, the perpetrator of cyberbullying chooses it, attacking the victim.

Let's take a look at how the respondents answered the questions that allowed us to examine the existence of the correlation we were interested in.

Tab. 3. Answers to question no 4. What would you feel most affected by?

Question 24	I	II	III	IV	V	VI
	Total	Percent-age	Mode	Typical Average	Average deviation	Coefficient of variation in %
a) using insulting, degrading, vulgar words…	81	24,32%		107,33	68,44	70% high variability
b) a rumor about you, betraying your secret by someone…..	210	63,06%	a rumor about you, someone betraying your secret…			
c) meddling, lecturing, uninvited advice, hurting…	31	9,31%				

Source: own research.

Table 4 shows that the respondents (63.06%, that is 210 people) consider **rumors** about themselves, betraying their secrets, accusing them or telling them about something, ironizing them as the most harmful form of verbal aggression. The use of insulting, degrading, vulgar words appears to be the most severe for 81 people (constituting 24.32% of the surveyed population), while meddling, lecturing, uninvited advice or harmful classification would hurt 31 people (9.31% of respondents) to the greatest extent.

Regarding the data on forms used against other electronic aggression (illustrated slightly earlier in Table 2, it should be stated that the respondents most often use insulting and vulgar words (32, 43%). Men are at the forefront of this, representing 19.01% of the already mentioned 32, 43%, but there are fewer women using vulgarisms (the remaining 13.42%).The so-called gender parameter is not preserved.

Is there a tested correlation?

Tab. 4. Correlation between the type of linguistic aggression perceived as the most severe and the type of aggression used against others.

Question	Type of aggression against others *(Question. 14. Have you ever, even as a joke or out of boredom, used any of these behaviours ?)*[16]
Type of electronic aggression perceived as the most severe (Question 24. What would you feel most affected by?)[17]	-1 VI*

* I – no correlation, II – correlation – moderate, III – significant correlation, IV – high correlation, V – very high correlation, VI – total correlation

Source: own research.

As indicated in the table below, the correlation exists. The strength of the relationship between the variables is **negative**, **total** and is at the level of -1. As the independent variable (the type of aggression used) increases, the dependent variable (the form of experienced cyberbullying) decreases. This means that those who are most affected by rumors and the betrayal of secrets do not use such techniques. At the same time, people admitting to harassing and persecuting others declared that they considered meddling, lecturing, uninvited advice as the most harmful, that is, they seem to say about themselves that they do not reach for the tools of verbal aggression, the actions of which they would feel most hurt – as if they were implementing a humanistic motto: *do not do to others what you do not like* – even if you are planning to tease them, one would like to add.

Relationship between the recognition of a given information exchange channel as more adequate for transmitting insults, offensive comments etc. and its use for these purposes?

As far as the relationship indicated in the subtitle is concerned, it was assumed that it also **exists.**

"Lightness", effortlessness of "sending" aggressive messages through a specific communication channel translates, according to the hypothesis, into the frequency of using it.

Before examining whether the assumption is confirmed, let us take a closer look at the respondents' answers to the questions related to this correlation.

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[16]   Content of the question (Polish language): Czy zdarzyło ci się kiedykolwiek, choćby dla żartu lub z nudy, stosować któreś z wymienionych zachowań: a) nękanie, prześladowanie; b) straszenie (grożenie, zastraszanie); c) szantażowanie z użyciem sieci; d) publikowanie lub rozsyłanie ośmieszających treści; e) podszywanie się w sieci pod kogoś wbrew jego woli, snucie intryg; f) obrażanie (wulgarnych słów); g) wyśmiewanie, wyszydzanie, upokarzanie; h) psucie innym opinii; i) nie stosowałem żadnego z tych zachowań.

[17]   Możliwości wyboru takie jak w przypisie wyżej, czyli: a) nękaniem, prześladowaniem; b) straszeniem (grożeniem, zastraszaniem) itd.

Tab. 5. Answers to question 17: When do you think it's easier to formulate offensive comments, insults, curses?

Question 17	I	II	III	IV	V	VI
	Total	Percent-age	Mode	Typical Average	Average devia-tion	Coefficient of variation in %
a) in "face-to-face" communication	62	18,62%		109	64	62% high variability
b) in communi-cation via the network	205	61,56%	b) in commu-nication via the network			
c) I do not see any difference	60	18,02%				

Source: own research.

Most people (205, that is 61.56% of the total respondents) replied that: "*it is easier to formulate offensive comments and insults via the network*". Significantly, women (41.44%) responded more often than men.

The face-to-face communication as more conducive to the formulation of offensive comments and insults was chosen by 60 people representing 18.62% of the total respondents. This declaration was more often submitted by males (12.56%) than females (6.06%). The same number was found in the group of persons (60) who replied that they did not see any difference whether it was direct or indirect communication.

Knowing that most respondents find it easier to formulate offensive comments and insults through the network, let us analyze how they answered questions about the implementation of this type of behaviour.

Tab. 6. Answers to question 19 Have you ever used an offensive commentst, an insult, a curse against someone else in communicating via the Internet ?

Question 19	I	II	III	IV	V	VI
	Total	Percentage	Mode	Typical Average	Average deviation	Coefficient of variation in %
a) yes	197	59,16%	yes	165,5	31,5	
b) no	134	40,24%				19% low variability

Source: own research.

More than half (59, 16%) of the respondents admitted to the use of verbal aggression on the web in the form of offensive comments, insults, etc. Men (42.8%) had a greater share in the "yes" answers.

In comparison, verbal aggression related to the similar content refers to only 72.67% of respondents (242 people) who are accused of not willing to use "face-to-face" communication channel. As before, the answer to question 18 was "yes" more often given by men.

Tab. 7. Answers to question 18 Have you ever used an offensive comment, an insult, a curse against someone else in "face to face" communication?

Question 18	I	II	III	IV	V	VI
	Total	Percentage	Mode	Typical Average	Average deviation	Coefficient of variation in %
a) yes	242	72,67%	yes	166	76	46% high variability
b) no	90	27,03%				

Source: own research.

Therefore, does the dependency analyzed in this subchapter exist?

Tab. 8. Correlation between the recognition of a given information exchange channel as more adequate ("easier") to convey offensive comments, insults, etc. and the frequency of its use for above-mentioned purposes

Question	(Question 19. Have you ever used an offensive comments, an insult, a curse against someone else in communication via the Internet?)
(Question 17. When is it easier to use offensive comments, insults, curses ?)	- 0,25 I*

* I – no correlation, II – correlation – moderate, III – significant correlation, IV – high correlation, V – very high correlation, VI – total correlation

Source: own research.

Table 9 illustrating the calculations made, indicates that there is no interdependence in this subsection. The result **-0.25** means no correlation. The coincidence of the tested features is **accidental**. The fact that it is easier for someone to convey offensive insults or profanity via the Internet than in face-to-face communication does not mean neither that they often do nor that they

give up verbal aggression in direct communication.

<u>The relationship between being a victim and becoming a perpetrator of electronic aggression?</u>

Let us recall that in the methodological subsection it was assumed that the above-mentioned relationship **exists** and that it is shaped as follows: becoming a victim may contribute to being the perpetrator of electronic aggression. Before examining whether the assumption is confirmed, it is recommended to take a closer look at the respondents' answers to the question related to the correlation.

Tab. 9. Answers to question 9. If you've ever experienced one of these behaviours online, in what form?

Question 9	I	II	III	IV	V	VI
	Total	Percent-age	Mode	Typical Average	Average deviation	Coefficient of variation in %
a) harassment and bullying	54	16,22%				
b) frightening (threat-ening, intimidating)	91	27,33%				
c) network blackmail	39	11,71%				
d) publishing or send-ing out ridiculous...	44	13,21%				
e) impersonating someone online against their will, plot-ting intrigue	42	12,61%		75,22	37,29	50 % high variability
f) insulting (use of vulgar words)	149	44,74%	insulting, use of vulgar words			
g) jeering, mocking, humiliation	73	21,92%				
h) spoiling the opinion of others	58	17,42%				
I have not used any of these behaviours	127	38,14%				

Source: own research

Although 127 people responded that they had never experienced verbal aggression online, **206** people, that is **61.86%** of respondents, declared themselves victims. This was most often due to insult and using vulgar words. This answer was

marked by 149 people, who constitute 44.74% of the total respondents.

91 people were frightened, threatened and intimidated, more often women. The discomfort of jeering, mocking and humiliation represented the share of 73 people – 21.92% of respondents.

These and other values are presented in the table above. It is enough to mention that the answers given to the ninth question reflected a high volatility (50%) and deviated from the dominant answer to a large extent. We also wish to highlight the fact of a certain disgraceful, let's call it the universality of the phenomenon of verbal electronic aggression and creativity in its implementation.

What did we learn from the respondents about the perpetrators of the acts of the type analyzed?

Tab. 10. Have you ever, even as a joke or out of boredom, used any of these behaviours?

Question 14	I	II	III	IV	V	VI
	Total	Percent-age	Mode	Typical Average	Average deviation	Coefficient of variation in %
a) harassment, persecution	9	2,7%				
b) frightening (threatening, intimidating)	27	8,11%				
c) network blackmail	5	1,5%				
d) publishing or distributing ridiculous...	24	7,21%				
e) impersonating online against one's will, scribbling...	21	6,31%		50,33	54,44	108 % very high variability
f) insulting (vulgar words)	108	32,43%				
g) jeering, mocking, humiliating	59	17,72%				
h) spoiling your opinion	21	6,31%				
i) *I have not used any of these behaviours*	179	53,75%	*I have not used any of these behaviours*			

Source: own research.

Although nearly half (53.75%) of the respondents did not use or did not admit to the implementation of verbal aggression, the remaining part of the respondents (46.25%, that is 154 people) turned out to be not blameless in this respect. And so, 108 people (32.43%) of them replied that they had been offended on the Internet. In addition, jeering and mocking were used, followed by frightening, threatening and intimidating, and next publishing or sending out ridiculous information, impersonating someone on the Internet against their will, spoiling other opinions. More serious forms of verbal aggression, such as harassment, stalking or blackmail, occurred less frequently.

The answers to the ninth question showed a very high (108%) volatility, deviating from the dominant answer to a significant degree. Among other things, this is due to the possibility of indicating a number of answers.

Does the tested correlation occur?

Tab.11. Correlation between being a victim and becoming a perpetrator of electronic aggression

Question	Dependent variable: he/she will become the perpetrator of electronic aggression *(Question 14. Have you ever, even as a joke or out of boredom, used any of these behaviours?)*
Independent variable: being a victim of electronic aggression *(Question 9. If you've ever experienced one of these behaviours online, in what form?*	**-0,9** **V***

* I – no correlation, II – correlation – moderate, III – significant correlation, IV – high correlation, V – very high correlation, VI – total correlation

Source: own research.

Let us recall that **206** people, that is **61.86%** of the respondents, became victims. On the other hand, **154** people admitted to the act of electronic aggression, i.e. **46.23%.** As you can see, the collections of victims and perpetrators are not separate. Correlation proves that there is a very high degree of interdependence between being a victim of online aggression and its use of electronic aggression. It's equal to 0.9. As the independent variable increases: being a victim increases the dependent variable: he/she will become a perpetrator of electronic aggression.

Evil breeds evil, the message from Shakespeare's "Macbeth" would like to be repeated.

Discussion

The analysis of own research allowed to **verify positively** the hypotheses related to the relationship between sociodemographic variables and the use of cyberbullying. All independent variables correlate with the dependent variable. The closeness of the relationship between the tested features is complete, which makes it possible to clearly determine the correlation between the variables included in the study.

Referring to the statistical analysis of the interdependence between age and the use of cyberbullying, it was established that the older the Gimnazjum students, the more dangerous the forms of cyber aggression. On the other hand, younger respondents used milder forms of cyberbullying or did not use it. To illustrate the above thesis, one can use the research carried out by Michele Ybarra and Kimberly Mitchell, which proved that older teenagers (over 15 years old) are more likely to be the perpetrators of cyberbullying.[18] In turn, Janis Wolak, Kimberly Mitchell, David Finkelhor (research of 1,500 American Internet users aged 10-17) proved that most of the perpetrators known to the victims were under 18 years of age, and therefore belonged to the group of older adolescents.[19]

In the subject literature, there is a lack of research referred to the correlation between age and the use of cyberbullying by school youth[20], which requires caution when formulating clear conclusions.

On the basis of own research it was observed that there are significant differences between gender and the use of cyberbullying. Boys committed more cruel forms of cyberbullying. In turn, girls most often used milder forms of cyberbullying or did not use it. The found relationships are confirmed by Jacek Pyżalski's research[21], conducted on a group of 719 Gimnazjum students. It was proved that boys (29% of the total respondents) used more severe forms of aggression than girls (3% of the total respondents). A significantly higher percentage of boys committing cyberbullying is particularly dangerous due to its forms, such as: using offensive comments, insulting – 15.7%; commenting on the online forum – 10.8%; swearing – 10.6%; commenting in order to cause annoyance – 8.6%; sending messages to offend someone – 8.0%.[22] The tendency for boys to use cyberbullying more often was also confirmed by Julia Barlińska's

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[18] Research by M. Ybarra and K. Mitchell, after J. Pyżalski, *Agresja elektroniczna…*, p. 84.

[19] J. Wolak, K. Mitchell, D. Finkelhor, *Czy nękanie za pośrednictwem Internetu jest formą przemocy rówieśniczej? Analiza zjawiska nękania online przez znajomych rówieśników i przez sprawców znanych wyłącznie z sieci*, „Dziecko Krzywdzone" 2009, No 1(26), p. 57–67.

[20] J. Pyżalski, *Agresja elektroniczna…*, p. 84.

[21] J. Pyżalski's research, entitled „*Cyberbullying jako nowa forma agresji rówieśniczej wśród gimnazjalistów w kontekście pedagogicznych oddziaływań profilaktycznych i interwencyjnych*".

[22] J. Pyżalski, *Agresja elektroniczna i mobbing elektroniczny gimnazjalistów w kontekście zaangażowania w stosowanie nowoczesnych technologii komunikacyjnych – różne wymiary zjawiska*, „Kwartalnik Pedagogiczny" 2009, No 4 (214), p. 31–51; Ibidem, *Agresja elektroniczna i cyberbullying jako nowe, ryzykowne zachowania młodzieży*, Kraków 2012; Ibidem, *Agresja elektroniczna…*, on various pages

research conducted on a sample of 795 lower secondary school students.[23] Similar conclusions were reached by Damian Maher, who showed that boys tend to have more violent, more aggressive attacks on victims, whereas girls choose milder forms of cyberbullying, in the form of impersonating someone or intrigue.[24]

On the other hand, the research carried out as part of the Teen Online&Wireless Safety Survey is an antithesis to the hypothesis adopted above, because it was proved that girls are much more likely to use cyberbullying (in the studied group 60% of girls were the perpetrators of electronic aggression).[25] In conclusion, the results of the study carried out so far are ambiguous in terms of the impact of gender on cyberbullying.[26]

The hypothesis regarding the relationship between the place of residence and the use of cyberbullying was positively verified. It has been proved that the larger the population (a city with more than 50,000 inhabitants), the more dangerous the forms of cyberbullying used are. Students living in the countryside most often used milder forms of cyberbullying.

An interesting relationship was established by calculating the correlation coefficient between the family structure and forms of cyberbullying. On the basis of the value of the coefficient of variation, it was proved that students from full families used more dangerous forms of cyberbullying compared to students who grew up in incomplete families or care and educational institutions. The above correlation should be explained based on the number of students who took part in the study. Thus, the largest group of respondents were those from full families – there were 248 (74%) of them, from incomplete families – 70 (21%), while the students raising in foster families – 7 (2%) and in children's homes 6 (1.8%).

Michele Ybarra and Kimberly Mitchell have shown in their research that the family environment undoubtedly has an impact on the use of cyberbullying by young people. Teenagers who grew up in dysfunctional families more often resorted to electronic aggression, especially when their relationships with their parents or guardians were assessed negatively.[27] In addition, they resorted to it when parents or guardians applied disciplinary solutions to children, e.g. in the form of receiving privileges.[28] This trend was also confirmed by Jacek Pyżalski, who examined 2143 lower secondary school students in the context of risky behaviours online. He proved that young people who commit cyberbullying experienced a higher frequency of conflict situations in the family, as well as the lack of domestic rules regarding

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[23]   J. Barlińska, *Cyberprzestrzeń – nowa arena przemocy rówieśniczej?,* „Kwartalnik Pedagogiczny" 2009, No 4 (214), p. 53-66; J. Barlińska, *Wpływ kontaktu zapośredniczonego przez komputer na nasilenie zachowań antyspołecznych i cyberprzemocy,* „Dziecko Krzywdzone" 2009, No 1(26), p. 100–117.

[24]   J. Pyżalski, *Agresja elektroniczna…*, p. 83.

[25]   Ibidem, p. 82.

[26]   J. Pyżalski, *Agresja elektroniczna i cyberbullying jako nowe ryzykowne zachowania młodzieży,* Kraków 2012, p. 145.

[27]   Research by M. Ybarra and K. Mitchell, after J. Pyżalski, *Agresja elektroniczna…*, p. 88.

[28]   Research by M. Ybarra and K. Mitchell, after J. Pyżalski, *Rodzina i szkoła a przeciwdziałanie zaangażowaniu młodych ludzi w ryzykowne zachowania online,* „Dziecko Krzywdzone" 2013, No 1(12), p. 99– 109.

the use of the Internet or the lack of their enforcement.[29]

Undertaking the verification of the research hypotheses outlined in the paper should be considered as justified as possible, because the literature on the subject raises the issue of the credibility of questionnaire research on cyberbullying.[30] The above differences occur in both Polish and English-language studies This is certainly a multifaceted problem that needs to be resolved. The adopted research methodology or the research tools used, which lack standardization, are not without significance.

The analysis of the research results also allowed to verify the hypotheses regarding the communication and language sphere. Thus, the hypothesis that there is a relationship between the type of language aggression perceived as the most severe and the type of aggression applied to others **has not been fully confirmed**. It was found, however, that there is a total interdependence between the indicated variables, however it is implemented differently than assumed. It turned out that the respondents did not reach for the verbal aggression tools indicated as those whose actions would make them feel the most harmed. What does that say? For example, about knowledge, awareness, intuition that calling someone *a fool, dumb, blockhead, wet sandwich, odd quotient, Czesiek, Marian, Hitler, or even a bitch, fag, whore or piggy*

(all terms come from an open question of the questionnaire)[31], is not as socially harmful as, for example, accusing or slandering someone about something before, occurring as part of communication on the Internet, the so-called "invisible audience" and with such features of communication as: the durability of information posted on the Internet or the possibility of copying it. This observation corresponds to the opinion of Monika Rzeszutek, who – having conducted research on aggression in the awareness of young people – claims that they" know what aggression is and they are aware of the patterns which models of aggressive behaviour are taken from and they also know their causes and effects".[32]

The same goes for the second hypothesis. It was presumed that there is a **correlation** between the recognition of a given information exchange channel as more adequate than others to convey offensive comments, insults, etc and the use of it for these purposes. Meanwhile, the calculations showed that the examined interdependence **does not exist**.

While 61.56% of the total respondents declare (theoretically) that they prefer formulating offensive comments and insults via the network rather than in direct communication, questions relating to reality show that there were more people (72.67% of the respondents) who admitted to offensive comments,

[29]   J. Pyżalski, *Rodzina i szkoła a przeciwdziałanie…*, p. 102.

[30]   J. Pyżalski, *Agresja elektroniczna…*, p. 74.

[31]   Por. M. Kochan, „*Przyklejanie etykietek", czyli o negatywnym określaniu przeciwnika,* [in:] J. Anusiewicz, B. Siciński (ed.), *Język a kultura. Vol. 11: Język polityki a współczesna kultura polityczna,* Wrocław 1994, p. 85-89; E. Kołodziejek, *Językowe środki zwalczania przeciwnika, czyli o inwektywach we współczesnych tekstach polityczny* [in:] J. Anusiewicz, B. Siciński (ed.), *Język a kultura. Vol. 11: Język polityki…, p.* 69–74.

[32]   M. Rzeszutek, *Agresja w świadomości młodzieży* [in:] A. Dąbrowska, A. Nowakowska (ed.), *Język a kultura….*, p. 242.

insults, curses, etc. transmitted face-to-face than those who directed verbal aggression via the network (59.16% of the respondents).

The fact that it is easier for someone to convey an offensive comments, an insult, or profanity via the Internet than in face-to-face communication does not mean that they often do or give up verbal aggression in direct communication.

The last of the hypotheses **confirmed** it. As rightly assumed, there is a very high degree of interdependence between being a victim of online aggression and the use of electronic aggression – it is as if a person experiencing verbal aggression remembers the way it is performed and learns the role of the perpetrator of this type of behaviour. This brings to mind Albert Bandura's theory of social learning.[33] The author distinguishes two ways of human learning: (1) learning on the basis of inference and (2) modeling behaviour (imitation/observational learning) – based on conscious and intentional (to a greater or lesser extent) observation of the behaviour pattern and (more or less conscious/intentional) imitation of its behaviour in a similar situational and social context. As it seems, especially modelling (behaviour) is particularly vital for the development of aggression/behaviour of aggressive children and adolescents. [34] According to this theory, a person experiencing

violence or observing violence against others is taught by modelling. This is facilitated by the situation in which the perpetrators of violence are authorities, persons important to the observer. Their behaviour is easier to consider as a norm and justify, to identify with the observed understanding of reality, even pathological.[35]

This also corresponds to the results of research by Mikołaj Winiewski, which proved that, among others, the greater the contact with the hate speech in the environment, the more people get used to it (the phenomenon of desensitization).[36]

Conclusions

Based on the conducted research, it can be concluded that the issue of young people's online activity also linguistic is socially essential.

A lot of attention should be paid to the prevention of verbal aggression, especially as young people exposed to verbal aggression become ready to violate other principles of social coexistence, declaring greater readiness to use violence in everyday life. In the context of the above, we postulate:

1. educating school youth on the responsibility – after the age of 17, even criminal law – for linguistically aggressive behaviour in cyberspace,

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[33] Zob. więcej na temat tej teorii: A. Bandura, *Teoria społecznego uczenia się*, Warszawa 2007, p. 32–66; P. Suchowierska, P. Ostaszewski, *Naśladowanie a uczenie się przez obserwację. Porównanie perspektywy analizy zachowania i teorii społecznego uczenia się*, „Psychologia Rozwojowa" 2014, No 19, p. 37–47.

[34] Ibid. vide Z. Małysz, *Gry komputerowe a agresywność i agresja/zachowania agresywne dzieci i młodzieży. Przyczynek do psychopedagogicznej analizy problemu*, „Problemy Opiekuńczo-Wychowawcze" 2019, No 4, p. 40.

[35] Ibidem.

[36] M. Winiewski, K. Hansen, M. Bilewicz, W. Soral, A. Świderska, D. Bulska, *Mowa nienawiści, mowa pogardy. Raport z badania przemocy werbalnej wobec grup mniejszościowych*. Badania eksperymentalne i korelacyjne prowadzone przez Centrum Badań nad Uprzedzeniami Uniwersytetu Warszawskiego, Warszawa 2016.

2. developing communication, cultural and linguistic competences of young people,
3. dissemination of the principles of etiquette and respect for values – also in the social space of the Internet,
4. educating young people in an aura of wisdom and respect for the safety culture.

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