

# Educational Characteristics of Students - Victims of Cyberbullying

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**Abstract:** An increasing number of children and young people are exposed to peer violence via the Internet, but despite this, the fact that it is still not sufficiently recognized as a serious problem in society is worrying. The virtual world gives bullies anonymity, dominance, courage, a sense of security and power. By being involved in the virtual world, children and young people, victims of violence, always experience violence again and feel helpless and depressed, because they cannot fully influence the violent content. In our research, we were based on secondary school students, because they are the most vulnerable category when it comes to violence on the Internet. The subject of the research includes identifying the presence and forms of cyberbullying among secondary school students in the municipality of Modriča, as well as researching the relationship between the manner of cyberbullying and the educational characteristics of students – the victims of cyberbullying. The results of the research indicate that out of the total number of respondents, 39.7% of them were victims of cyberbullying, and when it comes to educational indicators, the victims of cyberbullying are mostly students with excellent and very good results.

**Keywords:** violence, cyberbullying, students, school.

## 1. INTRODUCTION

The rapid and dynamic development of digital technologies, and especially social media, has led to the growth of online socialization, and a reduction in the number of contacts in real life. People connect much more intensely and great geographical distances are not a problem for everyday communication. However, with too much openness on the Internet, people, especially children, have become more exposed to various forms of public humiliation and ridicule.

All those who are present on social networks can become victims of digital violence at any time.

Before the development of modern technologies, peer violence took place on playgrounds, in parks, in school hallways, and on the street, and it was much easier to spot and react to it. Today, everything happens in the "virtual world", but that does not diminish the seriousness of this problem. A child or young person may still be exposed to various forms of violence, and other children may still be involved who may not take on the role of the abuser but will not prevent violence; however, what is particularly worrying is the fact that a child cannot escape this violence and it never stops. Every day, the child "carries his abuser inside him", which is why peer violence via the Internet is especially worrying and difficult to recognize. The consequences of online violence can sometimes be more serious than those caused by peer violence in real situations, because the audience can be much larger, and due to anonymity, the perpetrators can be more cruel and violent than in the real world. Today, schools are places where victims of violence are found, looking for reasons for attacks and abuse via the Internet, and for that reason, we wanted to determine how much some educational indicators of students can be related to violence on social networks. Anyone can be an abuser today on any of the social networks at any occasion and temporal environment, but also a victim of such violence. It is this issue that prompted us to point out, through an empirical study, how much this phenomenon is present among secondary school students and what the educational characteristics of students, who are most often victims of cyberbullying, are.

## 2. THE CONCEPT AND CHARACTERISTICS OF CYBERBULLYING

Like most of the terms belonging to the sphere of information and communication technologies, digital violence is a relatively new

phenomenon that has become the subject of serious scientific discussions in recent decades. There are several definitions of digital violence, and some are more general and include all forms of harassment using digital technologies, while others focus on specific forms of digital violence. [1] However, the most important thing is mutual violence in the physical world and digital violence, so that the consequences are felt in the physical world and the space in which violence occurs in a new and different challenge.

The term most commonly used when it comes to Internet violence is cyberbullying. Cyberbullying is any form of peer violence in cyberspace or the imagined world. It is characteristic of cyber violence that a person can constantly experience inconveniences, in an apartment, in a cafe, or at school, and that can last 24 hours a day. Cyberbullying is a relatively new concept in the world, but also in our country and is constantly growing. [2]

Cyberbullying is a very broad term and can refer to all online behaviours that are committed with the goal of attacking one's mental, moral, emotional, or social integrity. [3] Further, digital violence can be seen as a modern form of peer violence that is carried out through the media, with the aim of humiliating and belittling the victim.

Many domestic and foreign authors have spoken about the characteristics of cyberbullying [4]; [5]; [6]; [7]; [8]; [9]; [10]. Olweus [6] states that cyberbullying has all the characteristics of traditional peer violence because it is aggressive behaviour that is expressed through negative actions and it is always intending to hurt the victim. Further, there is always disproportionate power between the victim and the perpetrator, and what is important to emphasize cyberbullying is characterized by repetitiveness.

The most common reasons for cyberbullying are the physical appearance of the victim and academic achievement, i.e., intelligence. Certainly, often some anomalies and physical shortcomings can be a sufficient reason to ridicule, insult, and belittle the victim via the Internet. In addition, their school achievement, intelligence, and abilities often cause envy in others who do not have such affinities and abilities, which is why they are often the target group for violent attacks through various social networks, where in such circumstances some of their statements are taken out of context to present themselves as villains or narcissistic persons. Financial status can be a reason for attacks via the Internet and social networks. The

reason may be a poor financial situation which causes the victim to be ridiculed and insulted, but the victim can also be a person of good financial status, where other reasons for the attack are often sought to later extort money from the victim. This type of digital racketeering is more and more present. Further, one of the reasons why cyberbullying occurs is religion and ethnicity. Often belonging to a religious community, skin colour, and origin can be a reason for cyberbullying. In particular, these attacks were expressed during some religious holidays or other significant events for that religious community. Sexual orientation is a phenomenon that is often the cause of cyberbullying. As in the previous factors, this one leaves unforeseeable consequences for the victim, who in such circumstances often tries to commit suicide, because she cannot cope with the everyday problems and attacks she experiences. [11] When we talk about peer cyberbullying, we can say that there are certain signs of recognition. However, this type of violence is more difficult to recognize than traditional forms of violence. Some of the most common indicators that warn of the presence of cyber violence in children are depression, anxiety, low self-esteem, social isolation, poor school performance, anxiety after using a computer or mobile phone and impaired health. The most common consequences of cyberbullying are low self-esteem, suicidal thoughts, frustration, depression, fear, retaliation, etc. Electronic violence can leave more consequences than traditional violence because it can occur at any time and anywhere in the virtual world. [12] Cyberbullying is a problem that threatens the physical and mental health of young people because it is linked to depression, anxiety, suicidal behaviour, substance abuse, declining school performance, and homicides in the school environment. [13] Although another person cannot be physically harmed during communication in the digital world, cyberbullying has negative consequences for people's psychophysical health, the behaviour of children and adults, and emotional and social functioning of people. [14] Also, content that is degrading and offensive to a person can be seen by a large number of people in a short time, which can prolong the course of abuse of the same person by persons who are not in direct contact with him. In addition, the same content can remain permanently online, and follow the person throughout his life. Inappropriate and offensive content can be made available to a large number of people, making the victim of violence even

more helpless. If persons are verbally assaulted, they are unlikely to remember every word sent to them by the abuser, while in the case of cyberbullying, a person can re-read the message sent to them every day through the means of communication. Therefore, we can say that cyberviolence brings with it traumatic consequences in the form of unpleasant feelings that can last a lifetime. [12] The results of one study tell us that 93% of students who have suffered cyberbullying feel sad, depressed, anxious and hopeless, 31% of students feel very upset, 19% feel hurt and 18% of students feel ashamed. [14]

Social networks are the basis through which internet violence occurs, through insults, threats, hacking profiles, stalking, spreading false information, abuse, etc. A concrete example of cyber violence on social networks is groups that are founded against someone or something, in which a large number of children and young people join. [15] Among the most famous and popular social networks are Facebook, Instagram, Twitter, YouTube, Blog, TikTok, etc. Social networks enable children, young people and adults to share their thoughts and ideas, but also hatred towards others to the general public. There are numerous researches on cyber violence in the world, the region and in our country. In 2012, IPSOS conducted a survey on cyberbullying on a sample of 18,687 citizens in 24 countries (Italy, Spain, France, Belgium, Poland, Germany, Hungary, Russia, Sweden, UK, China, Japan, India, Indonesia, South Korea, Turkey, Canada, USA, Brazil, Argentina, Mexico, Saudi Arabia, South Africa, Australia). The survey showed that as many as 66% of respondents are aware that there is cyberbullying and that they have seen, read or heard something about this problem. 3% of respondents said that children were regularly victims of cyber violence, 21% several times, while 6% of respondents said that children were victims once or twice. 12% of parents stated that their child was a victim of cyberbullying. The highest number of cases of cyber violence exists in India (32%), Brazil and Saudi Arabia (19%), and 15% in the United States. [16]

A study on youth was conducted in Bosnia and Herzegovina, which shows that 85% of citizens access the Internet every day, and more than 75% have an Internet connection in their place of residence. 95.1% of respondents said they have a Facebook profile and use it daily, 83% use Viber daily, 74.7% have an Instagram profile, and 72.9% of respondents visit YouTube

daily. These social and communication networks are most often used in BiH. When it comes to harassment and abuse on the Internet, 51.4% of respondents said that someone once posted information or a photo without his or her permission, 39.9% said that an indecent comment was posted on a social network about them, and 30.6% of respondents confirmed that they were or were victims of threats on a social network. Every third person has experienced that someone used information about them to embarrass or tease them. 49.4% of respondents stated that the reason for harassment on the Internet was a hobby or interest, way of dressing (46.9%), 29.6% stated that the reason was religious, ethnic or racial, and 11.1% of respondents stated that the reasons were good grades in school or college and cite jealousy as the reason. When it comes to harassment by respondents, 22.3% stated that they once made an obscene comment about someone, 22.6% that they posted a photo or information without the permission of another person, and only 3.2% admitted that they consciously published a lie about someone. [17]

In addition to its educational character, the school also has an important educational role. Starting from that, the school must not only react to every violence that happens in it, but it also should work on preventing it from happening at all, that is. to take all necessary preventive activities, including the move toward repressive measures, as an indicator to other perpetrators of what awaits them if they follow in the footsteps of the perpetrator who is being punished. A school is a place where cases of violence often occur, but it is also a place where violence should be prevented through effective activities and joint action of students, teachers and parents. All employees in the school have certain obligations in both preventive and intervention activities, but the school is also obliged to form a special team for protection against violence, as a result of full commitment to the protection and prevention of violence in schools. [18]

Schools will not be able to transform into non-violent schools until they have incentives from outside that will be able to initiate changes in the school itself, and be the initiator of various programs and forums. Therefore, it is important that through the implementation of prevention programs to combat peer violence in schools to achieve internal change in the school itself, which will perceive the creation of a nonviolent environment in the school as an open process and close cooperation that seeks to remove barriers to strengthen the competencies of the

school and its participation in the education of all children, and maximum commitment to children and the needs of children. These changes will mean a change in attitudes and value systems in the school, will ensure the emphasis on the importance and value of individualization and strengthening the individual's personality versus the collective, and nurturing and respecting diversity, bringing all in the collective to the same thinking. [19]

### 3. RESEARCH METHODOLOGICAL FRAMEWORK

#### 3.1. Research Aim

The research aims to determine the presence and manner of cyberbullying among high school students in the municipality of Modriča, as well as the educational characteristics of students - victims of cyberbullying.

#### 3.2. Research Hypotheses

Main hypothesis: We assume that cyberbullying is present at high schools in the municipality of Modriča and that there is a statistically significant difference in cyberbullying among students in Modriča's secondary schools concerning the educational characteristics of respondents.

Particular hypotheses:

H1. Various forms and methods of cyberbullying can be identified and determined among students at the Public Institution Secondary School Centre "Jovan Cvijić" Modriča.

H2. We expect that there is a statistically significant difference between the forms and methods of cyberbullying determined among students at the Public Institution Secondary School Centre "Jovan Cvijić" Modriča and their school performance.

H3. We assume that there is a statistically significant difference between the forms and methods of cyberbullying that occur in students at the Public Institution Secondary School Centre "Jovan Cvijić" Modriča and the classes they attend, i.e. the school grade.

#### 3.3. Research Variables

Within the research, variables are defined, which are integral parts of the defined research hypotheses.

The independent variables:

- School performance;
- School grade.

Dependent variables:

- Abuse through pictures and videos from the phone;
- Abuse via SMS;
- Email abuse;
- Abuse through telephone calls;
- Website abuse;
- Abuse through interactive games;
- Abuse by sending pornographic content;
- Attack through password theft and profile hacking.

#### 3.4. Research Methods and Techniques

In this research, we used general and basic scientific methods, i.e. induction and deduction methods, analysis and synthesis methods, testing method, content analysis method, statistical method, comparative method and theoretical description method.

To investigate the frequency and characteristics of cyberbullying problems, we used the survey method, using a survey technique. For this research, a questionnaire consisting of 21 questions was constructed. Processing of research results was realized using the software package for statistical data processing SPSS 21.00 for Windows.

#### 3.5. Research Population and Sample

The population from which the research sample was structured represented the total number of secondary school students in the municipality of Modriča. The research sample consists of 343 students of both genders and from all four grades of several secondary schools (Gymnasium, School of Economics and Electrical Engineering School) in the Public Institution SSC "Jovan Cvijić" in the municipality of Modriča. The age of the respondents ranges from 15 to 18 years of age. The research period covered the period from December 2020 to February 2021.

#### 4. RESEARCH RESULTS AND DISCUSSION

##### 4.1. Presence of Cyberbullying in Secondary Schools in the Municipality of Modriča

The first special hypothesis (H1) that we set in our research was related to the identification and determination of various forms and methods

of cyberbullying among secondary school students in the municipality of Modriča. To test this hypothesis, we analysed the data we collected on the presence of cyberbullying victims. We also analysed the number of victims according to the forms and methods of cyberbullying.

*Table 1. Presence of cyberbullying in secondary school students*

| Students victims of cyberbullying | Number of students |       |
|-----------------------------------|--------------------|-------|
| Yes                               | 136                | 39,7% |
| No                                | 207                | 60,3% |
| Total                             | 343                | 100%  |

Looking at the data presented in Table 1, we notice that out of 343 surveyed students in secondary schools, 136 or 39.7% of them stated that they were victims of cyberbullying, and 207 or 60.3% of students answered that they were not victims of cyberbullying. Based on the presented data, we can determine that a far higher number of students answered that they were not victims of violence via the Internet. However, the numbers show us that cyber violence is present among the students at the Public Institution Secondary School Centre "Jovan Cvijić". However, there is a possibility that some students answered incorrectly, e.i. that some students answered out of fear that they were not victims of

cyberbullying because they think that if they did, they could be targeted by cyberbullies again.

##### 4.2. Forms and Manners of Committing of Cyberbullying in Secondary Schools in the Municipality of Modriča

In Table 2, we show the relationship between the number of victims and the forms and manner of committing cyberbullying. That is, according to the data we collected from students, we stated how many students were victims of certain forms and ways of committing cyber violence.

*Table 2. Overview of the manner and forms of cyberbullying in relation to the number of victims*

| Victims of cyberbullying through various forms | SMS messages | Tel. calls | Images | E-mail | Chat rooms | Web sites | Porn. contents | Online games | Profile hacking and password theft | Overall |
|--|--------------|------------|--------|--------|------------|-----------|----------------|--------------|------------------------------------|---------|
| Yes  | 20           | 20         | 19     | 8      | 12         | 11        | 15             | 10           | 21                                 | 136     |
|  | 14,7%        | 14,7%      | 14%    | 5,9%   | 8,8%       | 8,1%      | 11%            | 7,4%         | 15,4%                              | 10%     |
| Total  | 20           | 20         | 19     | 8      | 12         | 11        | 15             | 10           | 21                                 | 136     |

The data shown in Table 2 indicate that of the total number of students who admitted to being victims, 20 or 14.7% were victims of cyberbullying by sending inappropriate and offensive text messages, and 20 or 14.7% of students were victims of cyberbullying through phone calls. 19 or 14% of students were victims of cyberbullying by receiving inappropriate and offensive images. 8 or 5.9% of students were harassed and abused by email, and 12 or 8.8% of students in chat rooms. 11 or 8.1% of students were abused and harassed through websites. We found that 15 or 11% of students experienced abuse through obtaining pornographic content, and 10 or 7.4% of students through interactive games. 21 or 15.4% of students experienced an attack through profile hacking and password theft.

Analysing the presented data, we can see that the most pronounced forms and ways of cyber violence are those that manifest themselves via mobile phones, i.e. by sending harassing and malicious SMS messages, pictures and making calls. The reason for this is the fact that almost all young people during adolescence own a smartphone and spend most of their free time using the services of the Internet and smartphones, so they are exposed and become a target of cyber bullies.

Among the most present ways and forms of manifestation of cyber violence are profile hacking and password theft. We are also witnesses here that all surveyed students have a profile on one of the social networks, and that sometimes they do not protect their accounts out of ignorance, so they can easily become victims of cyberbullying. Further, we can also single out cyber violence by sending porn content as one of the more present forms of internet violence in secondary schools in the municipality of Modriča. It could be said that one of the reasons is that in this period young people are still not mature enough to be able to judge for themselves who they should contact, i.e., they are still not able to protect themselves from paedophiles and people who refer such content to others.

#### *4.3. The Presence of Forms and Methods of Cyberbullying Among Students in Relation to School Performance*

The second particular hypothesis (H2) that we set in our research was whether there is a statistically significant difference between the forms and methods of cyberbullying that occur in students at the Public Institution Secondary School Centre "Jovan Cvijić" and school performance.

Table 3. Presence of forms and manners of cyberbullying in relation to school performance of secondary school students

| Forms and manner of cyberbullying in victims | The school performance of students who are victims of cyberbullying |           |       |              |         |
|--|---|-----------|-------|--------------|---------|
|  | Excellent   | Very good | Good  | Satisfactory | Overall |
| SMS messages                                 | 3   | 8         | 9     | 0            | 20      |
|  | 15%   | 40%       | 45%   | 0%           | 100%    |
| Telephone calls                              | 13  | 6         | 1     | 0            | 20      |
|  | 65%   | 30%       | 5%    | 0%           | 100%    |
| Images                                       | 10  | 6         | 3     | 0            | 19      |
|  | 52,6%   | 31,6%     | 15,8% | 0%           | 100%    |
| E-mail                                       | 4   | 3         | 1     | 0            | 8       |
|  | 50%   | 37,5%     | 12,5% | 0%           | 100%    |
| Chat rooms                                   | 6   | 4         | 2     | 0            | 12      |
|  | 50%   | 33,3%     | 16,7% | 0%           | 100%    |
| Web sites                                    | 6   | 4         | 1     | 0            | 11      |
|  | 54,5%   | 36,4%     | 9,1%  | 0%           | 100%    |
| Pornographic contents                        | 3   | 7         | 5     | 0            | 15      |
|  | 20%   | 46,7%     | 33,3% | 0%           | 100%    |
| Online games                                 | 2   | 6         | 1     | 1            | 10      |
|  | 20%   | 60%       | 10%   | 10%          | 100%    |
| Profile hacking and Password theft           | 8   | 9         | 4     | 0            | 21      |
|  | 38,1%   | 42,9%     | 19%   | 0%           | 100%    |
| Total  | 55  | 53        | 27    | 1            | 136     |
|  | 40,4%   | 39%       | 19,9% | 0,7%         | 100%    |
| Df   | 24  |           |       |              |         |
| $\chi^2$                                     | 36,878  |           |       |              |         |
| C  | 0,462   |           |       |              |         |

Analysing the data from Table 3, we see that out of a total of 136 students who were victims of cyberbullying, 55 or 40.4% were students with excellent results, 53 or 39% were students with very good school results, then 27 or 19.9% are students with good results, while 1 or 0.7% are students with satisfactory school performance. Of the total number of students, 20 students answered that they were abused and harassed by receiving SMS messages, of which

3 or 15% are students with excellent results, 8 or 40% are students with very good results, then 9 or 45% are students with good results, and there were no students with satisfactory school performance. Then, 20 students answered that they were victims of cyberbullying by receiving harassing phone calls, and of that number, 13 or 65% are students with excellent results, 6 or 30% are students with very good results, then 1 or 5% of students with good school performance. There

were no students with satisfactory school performance. 19 students answered that they were abused and harassed by receiving disturbing and inappropriate pictures, of which 10 or 52.6% were students with excellent school results, 6 or 31.6% were students with very good results and 3 or 15.8 % are students with good results. Also, 8 students answered that they were harassed by receiving emails, i.e. 4 or 50% are students with excellent results, 3 or 37.5% are students with very good school results and 1 or 12.5% are students with good results, while no student with satisfactory school performance has been a victim of cyberbullying in this way. In the chat rooms, 12 students experienced cyberbullying, i.e. 6 or 50% were students with excellent results, 4 or 33.3% were students with very good results, 2 or 16.7% were students with good results, and none the student with satisfactory school performance was not abused in this way. 11 students experienced cyber violence through content from websites, i.e. 6 or 54.5% are students with excellent results, 4 or 36.4% are students with very good school results, and 1 or 9.1% are students with good school performance. Interestingly, no student with satisfactory school performance responded that he had been abused in this way. We found that 15 students experienced abuse through receiving pornographic content, i.e. 3 or 20% were students of excellent school performance, 7 or 46.7% were students of very good school performance, and 5 or 33.3% were students with good school performance. We found that 10 students answered that they were victims of cyberbullying while playing interactive games, i.e. 2 or 20% are students with excellent results, 6 or 60% are students with very good results, then 1 or 10% are students with good school results, and 1 or 10% is a student with satisfactory school performance. 21 students experienced an attack through password theft and profile hacking, i.e. 8 or 38.1% are students with excellent results, 9 or 42.9% are students with very good school results, 4 or 19% are students with good results, and no student with satisfactory school performance responded that he/she had been abused in this way.

From the data presented in Table 3, we found that there is a statistically significant difference between the form and manner of cyberbullying and school performance. This fact is confirmed by the calculated chi-square. The determined  $\chi^2 = 23,639$  at  $df = 24$  is statistically significant at 0.05, thus confirming our second hypothesis.

According to the obtained data, we can conclude that students with better school performance, i.e. excellent and very good results are more endangered compared to students with poorer, i.e. good and satisfactory school performance results.

#### *4.4. Presence of Forms and Manners of Performing Cyberbullying Among Students in Relation to the Class that Students Attend*

The third special hypothesis (H3) that we set in our research was whether there is a statistically significant difference between the forms and manners of cyberbullying that occur in students at the Public Institution Secondary School Centre "Jovan Cvijić" and the classes attended by students.

Table 4. Presence of the form and manner of performing cyberbullying in relation to the class attended by students

| Forms and manner of cyberbullying in victims | Class       |             |             |             |             |
|--|-------------|-------------|-------------|-------------|-------------|
|  | First       | Second      | Third       | Fourth      | Overall     |
| SMS messages                                 |             |             |             |             |             |
| Telephone calls                              | 5<br>25%    | 7<br>35%    | 3<br>15%    | 5<br>25%    | 20<br>100%  |
| Images                                       | 9<br>45%    | 1<br>5%     | 6<br>30%    | 4<br>20%    | 20<br>100%  |
| E-mail                                       | 6<br>31,6%  | 2<br>10,5%  | 5<br>26,3%  | 6<br>31,6%  | 19<br>100%  |
| Chat rooms                                   | 3<br>37,5%  | 0<br>0%     | 4<br>50%    | 1<br>12,5%  | 8<br>100%   |
| Web sites                                    | 3<br>25%    | 5<br>41,7%  | 1<br>8,3%   | 3<br>25%    | 12<br>100%  |
| Pornographic contents                        | 4<br>36,4%  | 1<br>9,1%   | 2<br>18,2%  | 4<br>36,4%  | 11<br>100%  |
| Online games                                 | 3<br>20%    | 4<br>26,7%  | 3<br>20%    | 5<br>33,3%  | 15<br>100%  |
| Profile hacking and                          | 3<br>30%    | 2<br>20%    | 2<br>20%    | 3<br>30%    | 10<br>100%  |
| Password theft                               | 9<br>42,9%  | 6<br>28,6%  | 4<br>19%    | 2<br>9,5%   | 21<br>100%  |
| Total  | 45<br>33,1% | 28<br>20,6% | 30<br>22,1% | 33<br>24,3% | 136<br>100% |
| Df   | 24          |             |             |             |             |
| $\chi^2$                                     | 23,639      |             |             |             |             |
| C  | 0,385       |             |             |             |             |

Based on the data from Table 4, we see that out of a total of 136 students who answered that they were victims of cyberbullying, 45 or 33.1% of them are first-grade students, 28 or 20.6% are second-grade students, then 30 or 22, 1% are third graders, while 33 or 24.3% are fourth graders. Out of the total number of students, 20 students answered that they were abused and harassed by receiving SMS messages, of which 5 or 25% are first-grade students, 7 or 35% are second-grade students, then 3 or 15% are third-grade students, and 5 or 25% are fourth graders. In addition, 20 students answered that they were

victims of cyberbullying by receiving harassing phone calls, and out of that number, 9 or 45% are first-grade students, 1 or 5% are second-grade students, 6 or 30% are third-grade students, and 4 or 20% are fourth graders. Then, 19 students answered that they were abused and harassed by receiving disturbing and inappropriate pictures, of which 6 or 31.6% were first graders, 2 or 10.5% were second graders, 5 or 26.3% were third-grade students, and 6 or 31.6% are fourth-grade students. 8 students answered that they were harassed by receiving e-mail, i.e. 3 or 37.5% are first-grade students, 4 or 50% are third-grade

students and 1 or 12.5% are fourth-grade students, while no student from the second grade was not a victim of cyberbullying in this way. In the chat rooms, 12 students experienced cyber violence, i.e., 3 or 25% are first-grade students, 5 or 41.7% are second-grade students, 1 or 8.3% are third-grade students, and 3 or 25% are students from fourth grade. 11 students experienced cyberbullying through websites, i.e. 4 or 36.4% are first-grade students, 1 or 9.1% are second-grade students, 2 or 18.2% are third-grade students, and 4 or 36.4% are fourth graders. We found that 15 students experienced abuse through receiving pornographic content, of which 3 or 20% were first graders, 4 or 26.7% were second graders, 3 or 20% were third graders, and 5 or 33, 3% are fourth graders. Ten students answered that they were victims of cyber violence while playing interactive games, i.e. 3 or 30% are first-grade students, 2 or 20% are second-grade students, then 2 or 20% are third-grade students, and 3 or 30% are fourth graders. 21 students experienced an attack through password theft and profile hacking, i.e., 9 or 42.9% are first-grade students, 6 or 28.6% are second-grade students, 4 or 19% are third-grade students, and 2 or 9.5 % are fourth graders.

Looking at the data as a whole, we found that there is no statistically significant difference between the form and manner of cyberbullying and the classes they attend. This fact is confirmed by the calculated chi-square. The determined  $\chi^2 = 23,639$  at  $df = 24$  is not statistically significant, which means that we have not confirmed this hypothesis. Considering all the data we obtained, we can conclude that the occurrence of cyber violence is not conditioned by the class that students attend. That is, all forms and methods of cyberbullying are present in all classes in secondary schools.

## 5. CONCLUSION

We can talk about the presence of cyberbullying in high schools based on the number of identified victims and the number of students who admitted that they once abused others on the Internet. Based on the obtained results, we determined that there are students who are victims of violence on the Internet (39.7%), but also students who have committed violence against others (28.3%). All forms of cyberbullying are present among secondary school students in the municipality of Modriča. Hacking of profiles and theft of passwords

(15.4%) appear as the most common form and manner of cyberbullying in secondary schools in the municipality of Modriča. In addition, other forms and methods of cyberbullying that appear in a high percentage are sending harassing SMS messages (14.7%), making harassing phone calls (14.7%), and sending harassing pictures (14%). We have identified that there is a connection between the manner of cyberbullying and the educational and demographic characteristics of secondary school students in the municipality of Modriča. We found that there is a statistically significant difference between the way cyberbullying is done and the school performance of students. Further, we found that there is no statistically significant relationship between the way cyberbullying is done and the classes that students attend. Boys were more likely to be victims of cyberbullying (55.1%). With the arrival of a new generation of students, i.e., the students who were in the first grade at the time of the survey (33.1%), there was an increase in the number of students who were victims of cyber violence compared to the number of victims in the second (20.6%), third (22.1%) and fourth (24.3%) grades of secondary schools. Cyber violence was present in all four grades, and there was an increase in the first-grade students (33.1%). In the research, we came to the result that the victims of cyber violence were more often students with better school performance. It is their school achievement, cognitive abilities, excellence in classes, and achievements from various competitions that can be the reason for bullying and peer violence via the Internet. It is these data that indicate how important the educational characteristics of students are in the research of the other side, i.e. abuser personality structures and reasons for virtual attacks. What is especially indicative is that in the analysis of data related to the purpose of using the Internet and social networks, we found that 100% of surveyed students have a profile at least on a social network. *Facebook* (47.2%) and *Instagram* (30.9%) stood out as the most popular social networks.

Numerous researches on violence on the Internet point to the problems of all those factors that should be the foundation of a child's healthy growing up, and those are primarily the family and the school. Parents' computer illiteracy, insufficient control of children both at home and inside while using smartphones or other devices, insufficient communication with children about daily activities, and lack of understanding of their needs greatly increase the risk of such children

seeking attention and interlocutors on social networks. inappropriate content and photos, comments, and thus become a potential victim of cyberbullying.

The school, on the other hand, directs its potential to education by putting the upbringing of students in the background or leaving that role primarily to parents. Assessment is a measure of everything, not preparing children for life, work and learning. Violence is present in schools, in their yards, parks, and hallways, but in addition to the visible physical and verbal violence today under the influence of information - communication development takes completely different forms, which are much more dangerous and devastating for children and youth.

Today, children and young people grow up with smartphones and social networks and they are an integral part of their daily lives, but we must be aware that they will become both an inevitable and growing companion of their growing up. That is why it is necessary to understand the real risks and problems that cyberbullying brings and to protect young people, but also the adult population.

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