Effects of Gamification on Students' Awareness of Cyberbullying: Square Game Example

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Abstract

Cyberbullying, expressed as the e-version of violence, can extend beyond the school environment, persist independently of time and space, and consequently, have more adverse consequences than situations presented by conventional peer bullying. Cyberbullying on online platforms, involving actions such as cyber exclusion, identity theft, deception, exposure, persistent cyberstalking, flaming, defamation, online harassment, false accusations, and online arguments, can negatively impact students' academic success, weaken their sense of school belonging, and lead to feelings of school burnout. In this context, asserting that children have sufficient awareness of cyberbullying, and its various forms is difficult. Therefore, the primary aim of this research is to raise awareness among middle school students about cyberbullying and its types using the square game. The research is designed with a semi-experimental pattern. The study population consists of students attending Sinan Alağaç Middle School in the central district of Eskişehir during the 2022-2023 academic year. The sample includes 53 students from this school. The pre-test was applied to determine the knowledge and awareness levels of the students about cyberbullying and its types. Subsequently, the Square Game was implemented for three weeks, followed by a post-test. According to the pre-test results, it was found that the students participating in the research had low levels of knowledge about cyberbullying and its types. The developed "Square Game" was applied as part of the research, and the post-test results indicated an increase in the awareness levels of the students regarding cyberbullying. Moreover, it was identified that the students in the sample lacked sufficient knowledge, especially about cyber harassment, identity theft and impersonation, and defamation through gossip and disparagement. After the Square Game, an improvement in their knowledge on these aspects was observed.

Keywords: Square Game, Gamification, Student, Cyber Victimization, Cyberbullying

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With the developments in various fields throughout human history, profound societal transformations have occurred. Transitions to settled life, the discovery of fire, the advent of agriculture, industrial revolution, and similar events have had significant consequences for the entire world. Most recently, the phenomenon called "digitalization" has been added to this chain. From agricultural societies to industrial societies, post-industrial societies, and information societies, the process of "digitalization," catalyzed by the internet, has placed us within the realm of the digital society. Digitalization, deeply embedded in daily life, has allowed people to perform many tasks from the comfort of their homes, leading to profound changes in habits, social dynamics, communication methods, and consumption habits. Especially with the global spread of the Covid-19 pandemic that emerged in China in 2019 and quickly became a global crisis, digitalization, which had already permeated daily life, demonstrated its positive aspects during the pandemic. Indeed, due to the closure of schools during the pandemic, there was a rapid transition to distance/online education in Turkey as well (although there are different opinions regarding its benefits), preventing interruptions in the education process. Furthermore, profound transformations have occurred and continue to occur in the business/working world with the digitalization process, as noted by the American sociologist Richard Sennett. As Sennett pointed out, there has been a rapid transition to a flexible working system/home office system worldwide. Therefore, it would not be wrong to say that we have entered an era where people carry many things in a USB/flash drive. Additionally, along with the process of digitalization, we observe the introduction of important concepts into our lives. In this context, terms such as "digital media, new media, social media and platforms, digital media education, digital media law, digital literacy, cybersecurity, digital transformation, digital culture, digital media ethics, distance education, digital security (Anadolu University, e-newspaper, 2023)," cyber, digital parenting, digital citizenship, digital newspaper, hybrid education, blended learning, mixed education, online, digital consumption, digital empathy, digital identity, digital rights, digital intelligence, digital privacy, digital footprint, digital native, digital immigrant, and cyberbullying, among others, have become significant concepts.

The process of digitization, despite its positive aspects, also leads to significant problems, some of which negatively affect the education process. One of these issues is the phenomenon of cyberbullying. Bullying, a form of violence and aggression, is one of the negative behaviors exhibited by individuals. Bullying, described as conflict arising among peers, is an incident resulting from age or physical strength, originating from a power imbalance. It involves individuals applying violence to each other and is a form of repeated violence that affects both physically and psychologically, especially those who cannot protect themselves (Karaman-Kepenekçi and Çınkır, 2003; Kıldıran, 2019, p. 5)."

"On the other hand, 'bullying' refers to intentional physical, mental, or psychological harm inflicted by a powerful individual on a weaker individual. The type of bullying seen among students in educational institutions or schools is referred to as peer bullying and is primarily manifested within the school environment (Gürhan, 2017; Karoğlu and Çılğın, 2020, p. 346)."

Bullying, traditionally observed among individuals in physical proximity, has been noted to occur in different environments as well. With the rapid development of information technologies and their malicious use, a new form of bullying has emerged known as

cyberbullying. Cyberbullying behaviors, more prominent than traditional peer bullying, consciously inflict material or spiritual harm on another person using information technologies. It constitutes a different type of violence that aims to affect an individual psychologically. In other words, cyberbullying encompasses aggressive behaviors carried out in digital platforms with the purpose of harming an individual (Tokunaga, 2010; Karoğlu and Çılğın, 2020, p. 346)." The internet, turning the world into a small village, has brought distant people closer. The new generation prefers socializing through social media platforms via the internet, where they can create new identities. However, alongside providing many opportunities, the internet also introduces various risks, such as privacy loss and potential security problems due to the concealment of identity (Karoğlu and Çılğın, 2020, p. 346). Cyberbullying is one of these problems. Cyberbullying, conducted in various forms on digital platforms, can lead to different issues for the individuals affected. In today's societies where access to the internet and smartphones has become easy, the amount of time children spend on social media platforms is increasing. People express insults, condescension, mockery, and sometimes threatening words on various social media platforms that they may not say face-to-face in daily life. This behavior, also known as virtual bullying, negatively affects the individual/victim's social adjustment and psychological structure. From the perspective of children, this situation has the potential to negatively impact their academic achievements, psychological well-being, friendships, and motivation states. However, it is difficult to assert that children have sufficient awareness of cyber/virtual bullying. In this context, the research explores the knowledge levels of middle school students regarding cyberbullying and its types. The question addressed is: What are the knowledge levels of middle school students about cyberbullying and its types? Is the Square Game functional in raising awareness among students about cyberbullying and its types?

Violence in the E-World: Cyberbullying

Technology and the internet have made countless contributions to human life, making it easier. However, particularly in the use of internet-based platforms, the often disregard of ethical principles brings significant problems.

According to Cengiz (2021, p. 409), 'with the digitization process, it is observed that some traditional crimes are transferred to digital platforms and are evaluated under the name of cybercrime. Therefore, cybercrimes are now recognized as a significant international problem, and along with these crimes, ethical issues also come to the forefront. Additionally, as computer systems with network connections become more widespread, an increase in crime and harassment incidents on a global scale is observed.'

Cyberbullying is one of these problems. In fact, bullying, a behavior carried out by some individuals in real life, in other words, traditional peer bullying, is manifested in different ways in virtual environments. 'Traditional peer bullying is a behavior seen in places like school, park, street, and is expressed in the forms of mockery, name-calling, humiliation, gossip, exclusion, threat, physical and verbal harassment (Süslü, 2016; Yıldırım Şen, 2021, p. 109).' On the other hand, 'cyberbullying, which generally resembles traditional peer bullying, occurs in the digital environment (Smith, Görzig, Robinson, 2019; Yıldırım Şen, 2021, p. 109).'

According to Arıcak, while bullying behaviors that arise in the school environment can be framed within the control developed by educators, cyberbullying can carry the resulting victimization outside the school environment. Thus, bullying behavior continues independently of place and time (Aricak, 2011 cited by Karoğlu and Çılğın, 2020, p. 346). Therefore, 'cyberbullying, a type of bullying that can be carried out without spatial and temporal limitations, can reach levels much more dangerous than traditional peer bullying for these reasons (Alanoğlu and Karabatak, 2020 as cited in Yıldırım Şen, 2021, p. 109)' and can lead to deeper and uncontrollable problems.

Along with this phenomenon in the digital world, various concepts have entered the literature. Before delving into a detailed explanation of cyberbullying, it is useful to briefly define the concepts of the cyberbully and the cyber victim, who could be considered as almost active and passive subjects of the cyberbullying phenomenon. Accordingly, 'the person committing the act of bullying on digital platforms is called the cyberbully, and the person exposed to such bullying, adversely affected socially and psychologically, is defined as the cyber victim (Alanoğlu and Karabatak, 2020 as cited in Yıldırım Şen, 2021, p. 107).' In the literature, the behavior of cyberbullying, also expressed as 'digital bullying, online bullying, internet bullying, electronic bullying (Nagle, 2018; Edgington, 2020 as cited in Yıldırım Şen, 2021, p. 107),' has cyberbullies at one end and cyber victims at the other end. Cyber/virtual bullying is defined as 'the intentional and regular sending of images and/or messages containing intimidation, humiliation, threat, slander, or embarrassment through communication and information technologies by an individual or a group to another individual or group (MEB Special Education and Guidance Services General Directorate, 2019, p. 4). According to another source, the concept of cyber/virtual bullying is defined as communication using devices such as computers, mobile phones, etc. It is possible to define the concept of cyber/virtual bullying as intentional behavior aiming to harm an individual or a group through communication devices such as computers, mobile phones, etc. (Karoğlu and Çılğın, 2020, p. 346). Alternatively, 'cyberbullying can be defined as behavior carried out through social media networks or digital platforms, aiming to harm others socially, psychologically, and emotionally (Sipahi, 2020; Dinç, 2020; Heirman and Walrave, Quoted from 2020 by Yıldırım Şen, 2021, p. 106).' The common point that can be inferred from all three definitions is that ethical principles and human rights are violated with cyber/virtual bullying occurring in the digital realm within the 'cyberbullies-cyber victims chain.

In the process of carrying out cyberbullying behavior, the ability of the bully to initially hide their identity reassures the bully that they will not be caught or punished. Additionally, the belief of the victim that the identity of the person engaging in cyberbullying cannot be determined leads to the continuation of bullying behavior, and may even escalate its violence (Aksaray, 2011; Yıldırım cited in Myers and Cowie, 2019 Yıldırım Şen, 2021, p. 110).

However, according to Yıldırım Şen (2021), the perception that the identity of the cyberbully cannot be determined is a misconception, and there are very serious legal consequences for such behavior (p. 110).

There are two types of attacks in cyber bullying: direct and indirect. Direct attacks, threats, sending obscene photos, drawings, etc. While indirect attacks consist of behaviors

such as revealing any private information via e-mail. Behaviors such as texting or sending hurtful, humiliating and abusive messages (Hawker and Boulton, 2000; Vandebosch and Van Cleemput, 2009; cited in Karoğlu and Çılğın, 2020, p. 346).

Additionally, "the fundamental characteristics of cyberbullying include the cyberbully harboring hostile feelings towards the cyber victim and aiming to harm them. Furthermore, cyberbullying behavior can be motivated by a desire to hurt the other person, seek revenge, project one's own shortcomings onto the other person, or mock them" (Aksaray, from 2011 Quoted by Yıldırım Şen, 2021, p. 112).

"Cyber bullying; blackmail, harassment, trolling, exposing, gossiping, ostracizing, someone else behavior, using fake accounts, etc. It includes different actions such as" (Heirman and Walrave, 2020; Alanoğlu and Karabatak, 2020; Yaman and Peker, 2012; Duygulu, 2019; quoted by Yıldırım Şen, 2021, p. 107-108). As Tan (2019, p. 4) emphasizes, cyberbullying behavior is one of the negative behaviors that can find a place in our lives through social networks in the difficult-to-control digital or virtual world. According to Shapka, cyberbullying can cause more emotional harm than traditional peer bullying depending on the situations experienced (Shapka 2017 cited in Tan, 2019, p. 11). This is due to the difficulty of tracking digital information and the continuous nature of uninterrupted virtual access. Once a message, information, photo, or video is shared, it will remain in its original form, and the person experiencing cyberbullying will have the same experience every time they encounter them. Cyberbullying behavior can manifest in various ways and can occur on any device and online platform. This bullying can be carried out by a known person or a stranger. Additionally, in a cyberbullying incident, an individual can appear as both a cyberbully and a cyber victim at the same time.

Cyber bullying behavior, tablets, computers, mobile phones, etc. such as technological tools, SMS, e-mail, smartphone applications, forums, blogs, chat rooms, Twitter, it occurs in social networks such as Facebook, Instagram and online games. is coming. Cyberbullying behavior causes emotional harm to victims of bullying. It can cause discomfort and since it does not take place in a physical environment, the real impact of the bully/perpetrator is not visible. It makes it easier for him to hide his identity. This situation makes cyber bullying even more prevalent. It reinforces. Therefore, with the spread and expansion of virtual environments Malicious use of the internet, especially among young individuals, is a major cause of cyberbullying. causes it to be exposed to negative effects.

In this context, Willard's (2007) As he underlines, "people engage in some behaviors online that they refrain from in their real lives." By doing it on platforms, you are actually getting punished and not being noticed by the people around you. They do it easily because they think they can't get it and everyone behaves like this" (Willard, 2007 as cited in Kırat, 2019, p. 11). However, this idea is wrong and significant penalties are applied against cyber-crimes. It would be a correct statement to say.

Types of Cyberbullying

In today's world where digitalization has taken root, it is seen intensively and almost 'cyber' what are the types of cyberbullying that become problematic? Expressions about types of cyberbullying it would be useful to briefly summarize the explanations in it. This is natural,

Arıcak, Kınay and Tanrıkulu (2012), electronic bullying and electronic communication bullying (Arıcak, Kınay and Tanrıkulu, 2012 as cited in Kırat, 2019, p. 11). There According to electronic bullying, getting other people's passwords or spying on their e-mails it is bullying that occurs in the form of causing harm by sending someone. Electronic communication bullying isUsing technological tools to constantly disturb, disrupt, and name-calling, slandering, or attempting to spread gossip; contains fun messages It covers operations such as sending. Willard (2007) defines cyberbullying as; abuse, smear, mark, persistent cyberstalking, impersonation, exclusion, scheming and classified as disclosure (Willard, 2007; Baştürk Akça, 2019; Baştürk Akça and Sayımer, 2017 cited by Kaçar, 2023, p. 5) can be seen. Walker (2009), types of cyberbullying "online fighting, harming, online harassment, slander, impersonation of another person, cyber exclusion" (Walker, 2009 as cited in Kırat, 2019, p. 12). Rogers (2010) the advancement of information technologies and access to online platforms states that with the diversification of tools, the areas of exposure to cyber/virtual bullying have increased. (Rogers, 201 cited in Tan, 2020, p. 2020). Besides, in the previous lines As stated, cyber bullying behavior is caused by individuals' easy access to communication tools. It is a situation that comes with it. Therefore, "in today's world, telephones and computers With the increase in the use of cyber bullying, there is a significant increase in cyber bullying incidents and people resort to different methods while performing this behavior" (Kağan and Ciminli, 2016). quoted by Kacar, 2023, p. 8) is observed. As a matter of fact, Polanin et al., (2022) stated that people' cyber the tools they use for bullying behavior are instant messaging, e-mail, text. messages, social networking sites, chat rooms, forums, blogs and web pages (Polanin et al., 2022 cited by Kacar, 2023, p. They express it as follows: 8).

The emergence of cyberbullying behavior in an anomalous and pathological state is undoubtedly influenced by various factors. "Cyberbullying may arise from the individual engaging in bullying actions causing harm to relationships, seeking revenge, or arising from a lack of face-to-face communication" (Crosslin and Golman, as cited in Dursun, Gökçe, and Aytaç, 2020, p. 469). Additionally, psychological reasons such as the individual being in a state of depression, having anxiety problems, harboring hostility towards others, possessing narcissistic personality disorder, and having mental disorders can also contribute to the occurrence of cyberbullying (Field, 2018; Gibb, Devereux, as cited in Dursun, Gökçe, and Aytaç, 2020, p. 469). On the other hand, among young individuals, the emergence of cyberbullying behaviors is significantly influenced by the parents' lack of education, the communication style with their children, an authoritarian attitude towards internet usage, and insufficient knowledge about the risks posed by technology (cited from Uludaşdemir and Küçük, 2021, as cited in Kacar, 2023, p. 5). Regardless of the cause, the individual subjected to cyberbullying experiences a multifaceted impact.

Indeed, according to Wolak, Mitchell, and Finkelhor (2007), individuals experiencing virtual bullying encounter problems in their social and family relationships, an increase in anxiety levels, low self-esteem, signs of anger and depression (cited from Wolak, Mitchell, and Finkelhor, 2007, as cited in Tan, 2020, p. 18). Furthermore, it has been determined that the victim of virtual bullying is often faced with direct violence and physical harm threats, along with experiencing shame and humiliation in a public context. This situation significantly leads to psychological, emotional, physical, and social problems (cited from Patchin and Hinduja, 2006; Bailey, 2013, as cited in Dursun, Gökçe, and Aytaç, 2020, p. 471). Additionally, it has

been identified that individuals exposed to cyberbullying experience a decline in their achievements, encounter sleep problems, fear loneliness, and sometimes entertain thoughts of suicide (Kestel, Akbıyık, 2016, p. 855). The 'General Strain Theory,' developed to explain the negative consequences arising from bullying victimization, suggests that events leading to negative outcomes can result in anger and disappointment, and these emotions can lead to destructive behaviors (cited from Azami and Taremian, 2020, as cited in Kacar, 2023, pp. 12-13). On the other hand, "young people are the most affected, or in other words, the most victimized by cyberbullying." Undoubtedly, it should be noted that the primary factor contributing to young people's increased use of technology compared to other groups is significant (Bayram and Saylı, 2013, as cited in Dursun, Gökçe, and Aytaç, 2020, p. 471). The question arises: Who are the risk groups in cyberbullying, and what kind of precautions should be taken in this regard? Important answers to this question are apparent. For example, familial factors such as family structure, parental control, and intra-family communication style, along with demographic differences such as age, gender, parental education level, and the age of starting internet use, increase the incidence of victimization in the virtual environment (cited from Athanasio et al., 2018, as cited in Kacar, 2023, p. 10). The new generation, spending most of their time on social media platforms, is experiencing an increase in cyberbullying perpetration or victimization rates. In this context, it would be accurate to say that cyberbullying is one of the factors threatening the school climate.

Cyberbullying as a Phenomenon Threatening School Climate

Schools are educational institutions where children with different socio-economic backgrounds, habits, personalities, cultures, capitals, and habitus receive education. The school is the place where a child spends most of their time outside the family environment.

"Social contexts outside the family, such as school and peer groups, offer opportunities for the development of adolescents but also bring various risks. One of the most significant risks is school bullying. In acts of bullying that occur in the physical environments of the school, the presence of physical contact between the perpetrator and the targeted individual becomes inevitable. These contacts can take place in the school's changing rooms, corridors, classrooms, and on the way to school" (Cited from Olweus, 1993, as cited in Bayar and Uçanok, 2012, p. 102).

Meanwhile, the development and widespread use of information and communication technologies have made communication with peers a significant part of children's and adolescents' lives. This, at times, has played a decisive role in defining a new form of bullying, sometimes indirectly addressed in scientific studies as aggression, and sometimes examined in the context of relational aggression. In various studies, the term cyberbullying, also referred to as internet aggression, internet bullying, electronic bullying, or internet harassment (Kowalski and Limber, 2007; Raskauskas and Stoltz, 2007; Williams and Guerra, 2007; Ybarra and Mitchell, 2004, as cited in Bayar and Uçanok, 2012, p. 102), has become a frequently discussed theme in the literature on peer bullying."

Therefore, one of the factors threatening schools in contemporary societies is cyberbullying conducted through various social media platforms. While traditional peer

bullying is already a significant issue for schools, the advent of the internet has transformed cyberbullying into a major concern for educational institutions.

According to Aksaray (2011), traditional peer bullying, which began to be widely observed in schools since the 1970s, is generally seen during school hours. However, the situation is somewhat different in the case of cyberbullying; communication tools enable the bully to reach the victim at any time and continue the harassment (Tan, 2020, p. 22, citing Aksaray, 2011). Despite this, "most school administrators, teachers, and counselors are aware that traditional peer bullying is a significant problem. However, very few are conscious of students being harassed through communication technologies" (Aksaray, 2011, p. 407, citing Bernan and Li, 2005).

According to Campbell (2005), cyberbullying behavior is a significant global issue occurring among students in schools, negatively impacting them and becoming increasingly widespread. Therefore, it is a matter that needs careful attention (Tan, 2020, p. 23, citing Campbell, 2005). Research indicates that schools, particularly at the middle and high school levels, are under the invasion of cyberbullying (Tan, 2020, p. 23).

It would be beneficial to briefly summarize studies conducted on cyberbullying, which has become one of the significant problems of our time. In this context, Dehue, Bolman, and Völlink (2007) conducted research with elementary school and middle school first-grade students. They found that 16% of the students engaged in bullying others over the internet or through mobile phone messages, while 22% were identified as victims. Among the victims, 35% did not know the person harassing them. The researchers also noted that bullies were more likely to engage in such behavior at their own homes and when alone, or sometimes with a group of friends. The most prevalent type of bullying identified in the same study was gossiping and name-calling (Dehue, Bolman, and Völlink, 2007, as cited in Aksaray, 2011, p. 414).

Juvonen and Gross (2008) found in their studies that 72% of young people aged 12-17 had experienced bullying behavior at least once in online environments in the past year (Juvonen and Gross, 2008, as cited in Aksaray, 2011, p. 414). In a study by Serin (2012), the aim was to determine teenagers' experiences with cyberbullying-cyber victimization and the awareness levels of teachers and education administrators regarding these behaviors. The research revealed that 26.52% of students were somehow involved in cyberbullying, 9.42% engaged in cyberbullying, 11.79% were victims of cyberbullying, and 5.31% were both cyberbullies and victims. The study also found that female students were less involved in cyberbullying and less likely to be cyber victims compared to male students.

Bayar and Uçanok (2012), in their study, investigated the relationship between adolescents' experiences of bullying in both school and online environments and the school social climate, as well as the mediating role of perceptions towards peers in this relationship. The general findings of the research can be summarized as follows: Perceptions related to peer situations play a fully mediating role in the relationship between the school climate and experiencing traditional peer bullying for both girls and boys. Additionally, perceptions related to peers play a partially mediating role in the relationship between the school climate and engaging in traditional peer bullying. Furthermore, it was observed that perceptions related to peers play a partial mediating role for girls and a fully mediating role for boys in the

relationship between peer perception and experiencing online bullying in the school climate. In conclusion, it is suggested that perceptions of peers play a crucial role in the relationship between bullying, peer perception, and the school climate.

Seyhan (2020), in his study conducted with a sample of middle school students, aimed to determine the prevalence of traditional peer bullying and cyberbullying, as well as the differences in parental attitudes concerning various variables related to these two levels of bullying. The research found that parental attitudes, habits, and preferences regarding internet use were associated with students' internet usage variables and the dimensions of both traditional and cyber/virtual bullying.

Karoğlu and Çılğın (2020), in their study on high school students' experiences with cyberbullying and cyber victimization, found that the development of internet technologies and easy access to these technologies pose the greatest threats to young people and adolescents. In this context, the conclusion was drawn that more attention should be paid to the concepts of cyberbullying and cyber victimization, which are the virtual equivalents of bullying in online platforms.

Aygün (2016) conducted a study in the context of Adıyaman, investigating the levels of cyberbullying among high school students. The research emphasized that cyberbullying is a behavior carried out through electronic communication tools. Various forms of cyberbullying behaviors were identified, including harassment, provocation, incitement, defamation, exclusion, slander, imitation, exposure, and disturbing and repetitive messages and calls. The study also highlighted that instant messaging, one-to-one networking, email, chat rooms, websites, text messaging, online games, blogs, discussion boards, and social sharing platforms are the means through which cyberbullying behaviors are expressed.

Kavuk and Keser (2016), in their study utilizing a survey model, aimed to determine the personal characteristics, information and communication technology usage of primary school students in the 6th, 7th, and 8th grades, and their situations of being cyberbullies or cyber victims. The research indicated significant differences between the situations of being a cyberbully or a cyber victim and variables such as gender, location of internet access, duration of internet usage, and purposes of internet use.

Özer and Şad (2021), in their research, aimed to determine the levels of cyberbullying, cyber victimization, and school burnout among high school students. They also examined the relationship between cyber victimization, cyberbullying, and school burnout concerning variables such as school type, gender, and grade level. The research found that students engaged in cyberbullying behavior at levels ranging from never to once a week. There were significant differences in school burnout based on gender and school type, while levels of engaging in cyberbullying behavior showed a significant difference only concerning school type. The study concluded that both engaging in cyberbullying behavior and being a victim of cyberbullying were significant predictors of school burnout.

It is a well-known fact that the new generation, or in other words, digital natives, spend a significant portion of their time in online platforms. Consequently, an increase in cyberbullying behaviors is an expected outcome. However, when the consequences of cyberbullying for students are examined, it can be said that educational institutions are facing

a serious problem. Indeed, most studies on this matter have found that "negative outcomes arising from cyberbullying bear similarities to the consequences of traditional peer bullying in schools" (Aksaray, 2011, p. 418). Furthermore, "children who experience cyberbullying tend to feel more emotions such as anxiety, sadness, and fear; and it has been observed that their grades may decrease due to attention disorders" (Beran and Li, as cited in Aksaray, 2011, p. 418). Additionally, it is observed that "children who are victims of cyberbullying exhibit behaviors such as running away from school, truancy, and bringing weapons to school" (Ybarra, Diener-West, and Leaf, as cited in Aksaray, 2011, p. 418).

As mentioned in previous sections, one of the fundamental negative outcomes that can arise in children who experience cyberbullying is school burnout. This psychological condition can profoundly affect various dimensions of children's school experiences in a comprehensive manner. It is crucial for students, teachers, administrators, and parents to gain awareness about cyberbullying. Therefore, this research aims to raise awareness among middle school students about cyberbullying, its types, methods, and consequences. In short, the main purpose of this study is to educate middle school students about cyberbullying and its types through a square game.

Game and Gamification

Play, which accompanies childhood, a developmental period in human life, is a process where children engage with many senses and is one of their happiest moments. Games are considered a part and necessity of human nature (Huizinga, cited in Sezgin et al., 2018, p. 170), with the central motivation being enjoyment and the natural experience (Sezgin et al., 2018, p. 170). According to Obut (2005), play is a way for a child to express themselves. Playing is a natural need for a child, like eating and drinking, and the game reflects the child's inner world like a mirror (Obut, cited in Kunduracıoğlu, 2018, p. 8). Although play is seen as a component of human beings, its definition has undergone changes in different periods, and it has served different functions in human life (Sezgin et al., 2018, p. 170). Play, which is the time when children are happiest, holds significant importance not only in the development of children but also in their educational lives. The permanence of subjects learned by doing and experiencing is higher for children, and during play, the child engages in a learning activity with many senses, thus opening the door to complete learning. In fact, according to a saying, life is like a game; what you need to do is to know how to play. Therefore, games are a part of our daily lives, and well-designed games and applications can be a good source of motivation (Bozkurt and Genç-Kumtepe, 2014, p. 147). According to Kunduracıoğlu (2018), looking at the historical process related to games, it is understood that play is a concept that has always been emphasized for its importance, and significant ideas related to its use with education have been expressed (p. 10).

At this point, the concepts of gamification and game-based learning come into play, and gamification becomes a significant component of the educational process, especially in preschool, primary, and middle school education. Gamification, utilized in the teaching process of various subjects, especially the instruction of challenging and complex topics in the educational process, contributes significantly to achieving lasting learning outcomes. In their book "Gamification by Design," Zimmermann and Cunningham (2011) define the concept of gamification as the use of game thinking, processes, and mechanisms to direct users' interests

and solve problems (Zimmermann and Cunningham, 2011, cited in Bahçeci and Uşengül, 2018, p. 76). In addition, gamification, which has its foundation in games, encompasses factors such as rules, outcomes, interactions, feedback, story, challenge, goals, and objectives derived from games (Prensky, 2001, cited in Çağlar and Kocadere, 2015, p. 85). On the other hand, while the goal in a game is entertainment, the purpose of gamification is to direct individuals' behaviors and tendencies. Gamification uses the game as a tool in an environment that does not necessarily involve playing a game (Bahçeci and Uşengül, 2018, p. 707).

According to Karataş (2014), the gamification process in education is not merely the addition of games to the instruction of knowledge or skills; it is the utilization of the potential to facilitate students' learning in the current learning environment by integrating game characteristics (Karataş, 2014, cited in Bahçeci and Uşengül, 2018, p. 710). Yıldırım and Demir (2014) also suggest that gamifying the educational process may initially appear to contradict conventional learning approaches. This perception arises from the idea that gamifying the lesson process could create a competitive environment in the classroom. However, in the gamification process, students are, in fact, competing with themselves (Yıldırım and Demir, 2014, p. 661).

In addition, the concepts of gamification and game-based learning are often confused with each other.

"Game-based learning involves teaching the subjects of a course through games, while gamification is the design and transformation of a non-game environment using the principles and components of games, turning it into a completely game-like experience. Gamification in education can be explained as the transfer of a structure designed with badges, points, experience, and level scores entirely to the classroom environment" (Yıldırım and Demir, 2014, p. 661).

In this study, the aim is to raise awareness among middle school students about cyberbullying, a new version of traditional peer bullying that is transferred from real life to the virtual environment, through gamification.

Methodology

This research is a gamification-based study aiming to raise awareness among middle school students about behaviors characterized as cyberbullying and the types of cyberbullying they may encounter on social media platforms.

Research Design

This study has a quantitative design and is prepared with a "quasi-experimental design" (Quasi-Experimental Studies). It was conducted on a single group (experimental group), and the preference was to establish causality. "In studies using this design, the absence of a control group, the lack of random assignment, and the inability to manipulate are situations that threaten the validity of the study. However, designing the study in a way that overcomes these limitations as much as possible is of great importance" (Trochim and Donelly, 2008, cited by Başol, 2008, p. 15). This research was conducted on a sample group within an educational institution. Therefore, "in studies conducted in fields such as education and psychology, where pre-existing groups (e.g., classes) are often used, the design used is quasi-

experimental" (Trochim and Donelly, 2008, cited by Başol, 2008, p. 15). In addition, the independent variable of this research is the Square Game, and the dependent variable is the Knowledge and Awareness Levels of Middle School Students on Cyberbullying.

Study Group

The research population consists of students attending a middle school in the Tepebaşı district of Eskişehir province during the 2022-2023 academic year. The sample of the study includes 53 students selected through appropriate sampling methods. The sample group was selected based on the principle of voluntarism. Among the sampled students, 29 are female, and 24 are male. Furthermore, 23 students are in the 6th grade, while 30 students are in the 7th grade.

Data Collection Tools

In this section, first, information is provided about the proposed model "Square Game," and then data collection tools and procedures are explained.

***Information about the Square Game***

'Square Game' is an educational game that allows the participation of all students, aiming to provide cyberbullying education. The rules of this game are as follows:

- A student group is formed according to the number of students in the class.
- Next, the corners A, B, C, and D of the square are created.
- A type of cyberbullying is written in each corner.
- Each time, the incident questioned falls into one of the corners representing the types of cyberbullying.
- The person managing the Square Game stands in the middle, holding game cards. These cards contain 'sample incidents' involving cyberbullying types.
- The facilitator reads the sample incident on the card aloud and asks which cyberbullying type the read incident reflects or emphasizes. Then, the facilitator instructs the students to disperse to the corners.
- The facilitator asks students who have dispersed to the corners why they chose that corner and gathers opinions from some students.
- Then, the person managing the game announces aloud the corner where the correct answer is and the type of cyberbullying.
- Afterward, the person in charge briefly explains the queried type of cyberbullying and ensures that students gain knowledge.
- This process is repeated for each type of cyberbullying.
- At the end of the activity, the names of the learned bullying types are stated one by one and written on the board.

Below is a diagram of the square game created for the theme of cyberbullying.

Figure 1

Diagram of Cyberbullying Themed Square Game
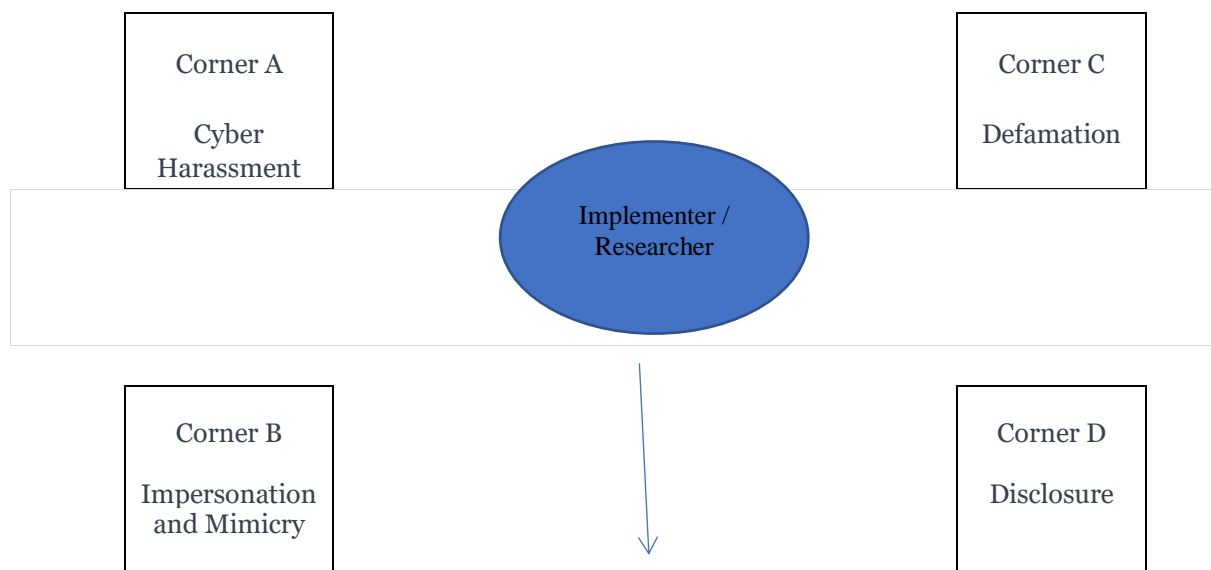
Example Incident Questions Related to Cyberbullying

1. Erkan sharing Yusuf's photos on social media without permission is an example of which type of cyberbullying?
2. Tuna being subjected to insults and being kicked out of the online game by his friends because he played poorly is an example of which type of cyberbullying?

In the research, a pre-test was conducted to determine whether students had knowledge about cyberbullying and its types before the application of the 'Square Game'. The procedures carried out in the pre-test are as follows:

1. A scale form consisting of 23 questions, prepared to elicit the types through sample incidents, was developed. While 10 of these questions aimed to determine socio-demographic characteristics, the remaining 13 included sample incident sentences questioning bullying types.
2. Students were asked to write down the 'type of cyberbullying' questioned with these sample incidents on the scale.
3. A record was kept of the answer's students provided to the questions in the pre-test scale.
4. The number of correct and incorrect answers given by students was individually noted. After applying the model (Square Game), the following procedures were carried out to assess its functionality:
   - A post-test consisting of 13 questions was created to assess the results of the cyberbullying education conducted through the Square Game and to gather students' opinions.
   - The findings obtained from the scale were analyzed, conclusions were reached; discussions took place, and recommendations were made.

Data Analysis

Percentage and frequency calculations were conducted for the socio-demographic data of the students participating in the research. Subsequently, the responses of the students to 13 sample scenarios prepared within the scope of the research, which examined the types of cyberbullying in the pre-test and post-test sections, were analyzed by subtracting the number of students who provided correct answers, and then interpreted.

Findings

In this study, the awareness levels of middle school students about cyberbullying are examined. In this context, the 'square game' developed within the scope of the research aims to contribute to middle school students gaining awareness about cyberbullying and its types. Important findings have been obtained because of the application.

Socio-Demographic Findings

Table 1

Participants' Gender

Gender	Frequency	Percentage	Valid Percentage	Total Percentage
Female	29	54,7	54,7	54,7
Male	24	45,3	45,3	100,0
Total	53	100,0	100,0	

As seen in Table 1, 54.7% of the students in the sample are female, and 45.3% are male.

Table 2

Participants' Date of Birth

Date of Birth	Frequency	Percentage	Valid Percentage	Total Percentage
2011	21	39,6	39,6	39,6
2010	21	39,6	39,6	79,2
2009	11	20,8	20,8	100,0
Total	53	100,0	100,0	

As shown in Table 2, 39.6% of the students in the sample were born in 2011, 39.6% in 2010, and 20.8% in 2009.

Table 3

Participants' Grade Level

Grade Level	Frequency	Percentage	Valid Percentage	Total Percentage
6	23	43,4	43,4	43,4
7	30	56,6	56,6	100,0
Total	53	100,0	100,0	

As seen in Table 3, 56.6% of the students in the sample are in the 7th grade, and 43.4% are 6th-grade students.

Table 4

Type of School Attended by Participants

Type of School	Frequency	Percentage	Valid Percentage	Total Percentage
Public State Middle School	53	100,0	100,0	100,0

As observed in Table 4, all the students in the sample (100.0%) attend a public state middle school.

Table 5

Family Structures of Participants

Family Type	Frequency	Percentage	Valid Percentage	Total Percentage
Single-Parent	2	3,8	3,8	3,8
Nuclear Family	37	69,8	69,8	73,6
Extended Family	14	26,4	26,4	100,0
Total	53	100,0	100,0	

As seen in Table 5, 69.8% of the students in the sample live in a nuclear family, 26.4% in an extended family, and 3.8% in a single-parent family.

Table 6

Mother's Education Level of Participants

Mother's Education	Frequency	Percentage	Valid Percentage	Total Percentage
Literate	2	3,8	3,8	3,8
Primary School	7	13,2	13,2	17,0
Middle School	20	37,7	37,7	54,7
High School	12	22,6	22,6	77,4
Associate degree	9	17,0	17,0	94,3
Bachelor's Degree	3	5,7	5,7	100,0
Total	53	100,0	100,0	

As shown in Table 6, the mother's education levels of the students in the sample are as follows: 37.7% middle school, 22.6% high school, 17.0% associate degree, 13.2% elementary school, and 5.7% bachelor's degree; 3.8% are literate.

Table 7

Father's Education Level of Participants

Baba Eğitim Durumu	Frequency	Percentage	Valid Percentage	Total Percentage
Literate	1	1,9	1,9	1,9
Primary School	6	11,3	11,3	13,2
Middle School	12	22,6	22,6	35,8
High School	20	37,7	37,7	73,6

Associate degree	10	18,9	18,9	92,5
Bachelor's Degree	2	3,8	3,8	96,2
Postgraduate	2	3,8	3,8	100,0
Total	53	100,0	100,0	

As seen in Table 7, the father's education levels of the students in the sample are as follows: 37.7% high school, 22.6% middle school, 18.9% associate degree, 11.3% primary school, 3.8% bachelor's degree, and 3.8% postgraduate; 1.9% are literate.

Table 8

Mother's Job of Participants

Mother's Job	Frequency	Percentage	Valid Percentage	Total Percentage
Retired	1	1,9	1,9	1,9
Housewife	42	79,2	79,2	81,1
Worker	10	18,9	18,9	100,0
Total	53	100,0	100,0	

As seen in Table 8, the occupations of the mothers of the students in the sample are as follows: 79.2% housewife, 18.9% worker, and 1.9% retired.

Table 9

Father's Job of Participants

Father's Job	Frequency	Percentage	Valid Percentage	Total Percentage
Retired	5	9,4	9,4	9,4
Self-Employed	12	22,6	22,6	32,1
Worker	30	56,6	56,6	88,7
Civil Servant	6	11,3	11,3	100,0
Total	53	100,0	100,0	

As seen in Table 9, the occupations of the fathers of the students in the sample are as follows: 56.6% worker, 22.6% self-employed, 11.3% civil servant, and 9.4% retired.

Table 10

Preliminary Test Data Regarding Participants' Exposure to Cyberbullying

Preliminary Test Data	Frequency	Percentage	Valid Perc.	T. Per.
Yes	12	22,6	22,6	22,6
No	21	39,6	39,6	62,3
Undecided	20	37,7	37,7	100,0
Total	53	100,0	100,0	

As seen in Table 10, it is understood that 22.6% of the students in the sample reported experiencing cyberbullying, while 39.6% stated that they did not. The percentage of those who are undecided is 37.7%.

Table 11

Final Test Data Regarding Participants' Exposure to Cyberbullying

Final Test Data	Frequency	Percentage	Valid Perc.	T. Percentage
Yes	25	48,1	48,1	48,1
No	19	36,5	36,5	84,6
Undiceded	8	15,4	15,4	100,0
Total	52	100,0	100,0	

As shown in Table 11, 48.1% of the students in the sample reported experiencing cyberbullying, 36.5% stated that they did not, and 15.4% said they were undecided. These data indicate that the Square Game is functional in raising awareness among middle school students about cyberbullying and its types. The difference between the data from the pre-test and the final test, in other words, the increase in the percentage of "yes" responses after the implementation of the Square Game, reflects an improvement in students' knowledge about cyberbullying. Indeed, the "yes" rate, which was 22.6% in the pre-test, increased to 48.1% in the final test.

Preliminary Test Findings on Students' Knowledge Levels About Cyberbullying

Table 12

Preliminary Test Findings

Sample Incident Given Regarding Cyberbullying	Responses Given by Students	Correct Answer	Number of Students
Nihat, who introduces himself as an important person, falls victim to fraudsters by believing them and disclosing his account information, losing a substantial amount of money.	Attack and Deception=13 Defamation/Slandering= 6 Cyber Harassment= 5 Slander =5 Exclusion= 1	Identity Impersonation and Mimicry	23
A group of friends playing online games intentionally removes a selected person from the group and does not invite them back.	Attack and Deception=11 Impersonation and Mimicry=17 Mimicry=6 Cyber Harassment=5	Exclusion	14

Ercan is unauthorizedly sharing private messages between him and his friend Hüseyin.	Slander= 2 Cyber Harassment= 15 Impersonation and Imitation=2 Gossip and Disparagement=14 Defamation=5	Disclosure	15
Ceren is spreading untrue and negative remarks about her friend Nisa in a group where Nisa is not present.	Cyber Harassment=13 Exclusion=7 Slander=11 Disclosure=4 Impersonation and Mimicry=6 Defamation=3	Gossip and Vilification	9
Entering her email address and password on unsafe websites, Eda discovers the next day that all her personal information has changed, and she can no longer access her account.	Impersonation=15 Disclosure= 9 Mimicry=6 Exclusion=5 Slander=5 Cyber Harassment=3	Attack and Deception	11
Sibel is being harassed every day by an unidentified user, despite expressing her unwillingness to engage in conversation.	Assault and Deception=11 Disclosure=3 Impersonation and Mimicry=6 Gossip and Disparagement=2 Cyber Harassment=8 Defamation=2 Exclusion=3	Cyber Harassment	18
Erkan, checking his emails, downloads a file from an unfamiliar email address. Shortly afterward, Erkan notices malfunctions on his computer and realizes that the downloaded files are infected with a virus.	Defamation=9 Impersonation and Imitation=4 Exclusion=8 Cyber Harassment=6 Slander=10 Gossip and Disparagement=3	Attack and Deception	13
Zeynep, who lost her pen in the classroom, claims in her class's online group that Mete took her pen without any evidence to support her claim.	Impersonation and Mimicry=5 Disclosure=13 Defamation=8 Cyber Harassment=3	Slander	24
		Impersonation	10

Ahmet, who was happy to make friends through social media, discovers that his classmates deceived him with a fake account.	Slander=4 Defamation=7 Attack and Deception=11 Gossip and Disparagement=4 Exclusion =6 Cyber Harassment=11	and Mimicry	
Arda is receiving threats and insults from an anonymous user on his personal account, where he shares his own thoughts.	Exclusion=11 Attack and Deception=12 Defamation=8 Slander=3 Gossip and Disparagement=4	Cyber Harassment	15
The group of friends playing online games insults Tuna for playing poorly and kicks him out of the game.	Impersonation and Mimicry=2 Attack and Deception=8 Slander=8 Cyber Harassment=6 Defamation =9 Disclosure=4	Exclusion	16
Burak is sharing Hamit's photos on social media without permission.	Cyber Harassment=16 Gossip and Disparagement=9 Slander=6 Exclusion=2 Attack and Deception=5 Impersonation and Mimicry=1	Disclosure	14
Nazlı, to escalate the argument with Aslı, is orchestrating a social media campaign to incite public outrage.	Slander =3 Disclosure =11 Attack and Deception =10 Exclusion =5 Gossip and Disparagement=13 Cyber Harassment=2	Defamation	9

Recent Test Results Regarding Students' Knowledge Levels on Cyberbullying

Table 13

Recent Test Results

An Example Incident Given Regarding Cyberbullying	Responses Provided by the Students	Correct Answer	Number of Students
Nihat, who considers individuals presenting themselves as important and shares his account information, falls victim to scammers losing a significant amount of money.	Attack and Deception=5 Cyber Harassment=3	Impersonation	45
A group of friends chatting online intentionally removes a selected person from the group and does not readmit them.	Disclosure=9 Gossip and Disparagement=5	Exclusion	39
Ercan is unauthorizedly sharing private messages between himself and his friend Hüseyin.	Cyber Harassment=5 Defamation and Slander=13 Gossip and Disparagement=1	Disclosure	34
Ceren is making false/negative remarks about her friend Nisa in a group where Nisa is not present.	Attack and Deception=5 Cyber Harassment=11 Disclosure=2 Defamation=11	Gossip and Disparagement	23
Eda, who entered her email address and password on unsafe websites, discovers the next day that all her personal information has changed, and she can no longer access her account.	Impersonation and Mimicry=4 Cyber Harassment=2 Exclusion=8 Defamation=5 Disclosure=4	Attack and Deception	30
Sibel is being harassed every day by an unidentified user, despite expressing that she does not want to engage in conversation.	Attack and Deception=7 Impersonation and Mimicry=7 Defamation=1 Disclosure =3 Slander=2 Gossip and Disparagement=3	Cyber Harassment	30

Erkan, checking his emails, downloads a file from an unfamiliar email address. It doesn't take long for Erkan to notice issues with his computer and realize that the downloaded files are infected with a virus.	Defamation=10 Impersonation and Imitation=1 Defamation=11 Disclosure=1 Cyber Harassment=3	Attack and Deception	27
Zeynep, who lost her pen in the classroom, claims in her class's online group that Mete took her pen, even though she has no evidence to support her claim.	Defamation=6 Impersonation and Mimicry=3 Disclosure=4 Exclusion=6 Cyber Harassment=2	Defamation	32
Ahmet, who was happy to make friends on social media, discovers that his classmates deceived him with a fake account.	Attack and Deception=4 Defamation=7 Defamation=6 Gossip and Disparagement=4 Cyber Harassment=6	Impersonation	26
Arda, receiving threats and insults from an anonymous user, due to sharing his own thoughts on his personal account.	Attack and Deception=6 Defamation=5 Defamation=4 Exclusion=8 Impersonation and Mimicry=1	Cyber Harassment	29
A group of friends playing an online game insults Tuna for playing poorly and kicks him out of the game.	Defamation=9 Disclosure=3 Impersonation and Mimicry=2 Attack and Deception=4 Cyber Harassment=6 Defamation=2	Exclusion	27
Burak is sharing Hamit's photos on social media without permission.	Defamation=4 Attack and Deception=5 Gossip and Disparagement=7	Disclosure	37
Nazlı, arguing with Aslı, is using social media to escalate the situation and engage in online harassment.	Cyber Harassment=3 Attack and Deception=6 Defamation=2 Exclude=2 Gossip and Disparagement=7	Defamation	33

Results and Discussion

The transformations in the field of information and technology, despite bringing practical positive outcomes for individuals, have also resulted in negative consequences. The internet, acting as a catalyst in this process, has turned the world into a small village, bridging distances and strengthening communication processes in the virtual world through social

media platforms. Nowadays, people spend a significant amount of their time on social media, engaging in different forms of socialization. Particularly, the new generation known as digital natives has adopted a lifestyle centered around social media. Individuals who heavily use the digital world may encounter various challenges. One of the significant drawbacks is the transference of traditional peer bullying into the virtual realm, known as cyberbullying. In this study, it is assumed that middle school students lack sufficient awareness regarding cyberbullying and its types. Therefore, this research aims to enhance the awareness levels of middle school students regarding cyberbullying and its various forms. The study has yielded significant results in this regard. It is challenging to assert that children, particularly those of school age, have sufficient knowledge about cyberbullying across different types. In a study conducted by Kestel and Akbıyık (2016), it was found that most students lack adequate awareness of the impact of cyberbullying and do not possess sufficient knowledge on coping with cyberbullying appropriately. The data obtained in this research aligns with these findings, supporting the conclusion that there is insufficient awareness and coping knowledge among school-age children regarding the various types of cyberbullying.

In another study, Balaban-Salı and Ergün-Başak (2015) examined the existence of cyberbullying behavior among 7th and 8th-grade students in seven regions of Turkey. At the end of the study, the researchers found that students engaged more in cyber deception and were most exposed to cyber deception in the process of becoming cyberbullies or victims. The data obtained from this research supports the conclusion drawn in the current study. This finding is similar to the results of the study conducted by Kestel and Akbıyık (2016). In the study by Kestel and Akbıyık (2016), it was found that the decrease in studying and motivation for classes during the period of victimization negatively affected students' academic achievements. The study also revealed that students who experienced cyberbullying were unable to concentrate on their studies and experienced emotions such as fear, anger, revenge, uneasiness, and sadness. Tunca's study (2019) also indicates that students experience a decline in academic success, deteriorating mental health, reluctance to attend school, worsening relationships with friends, deteriorating relationships with family, and worsening relationships with teachers because of being exposed to cyberbullying. This study shares similar results with the current research. Sarışık et al.'s study (2022) provides a detailed breakdown of cyberbullying and its types. They found that students were exposed to cyberbullying behaviors in the following proportions: 52.5% experienced swearing and insults, 37.5% experienced image sharing, 20% experienced receiving messages, 15% experienced image manipulation, 12.5% had their accounts hacked, and 10% faced threats. The current research aligns with these findings in terms of results.

Furthermore, it was observed that students did not have sufficient knowledge about the types of cyberbullying, and a significant difference was found between pre-test and post-test responses after the implementation of the "Square Game." After the application, there was a notable increase in the response rates to the sample cases questioning students about cyberbullying types in the post-test. Additionally, it was observed that female students in the sample had a higher level of knowledge and awareness about cyberbullying and its types compared to male students. Moreover, female students were found to be more exposed to cyberbullying compared to male students. This situation might reflect the fact that male students are more involved in cyberbullying behaviors in the online world. This is consistent

with the findings of Balaban-Salı and Ergün-Başak's (2015) study, where it was reported that males had higher levels of engaging in cyberbullying compared to females. Furthermore, it was determined that students in the sample did not have sufficient knowledge, particularly regarding 'cyberstalking, impersonation and imitation, and defamation with gossip and denigration.' This situation highlights the necessity for students to be informed about digital competencies, digital citizenship, digital intelligence, digital empathy, and similar topics. In the study by Sarışık et al. (2022), it was found that students were unaware of their legal rights regarding cyberbullying by 60%. This finding can be considered as supporting the need, as suggested by the current research, to raise awareness among students about relevant issues.

Suggestions

The cyberbullying phenomenon, which involves the transfer of traditional peer bullying to online platforms, has become a significant issue among students in both daily interactions and educational environments. Cyberbullying and its various forms, also referred to as the e-version of violence, have become a prevalent occurrence in today's societies where digitalization is deeply rooted. This study examines the situations of middle school students facing cyberbullying, as children born into technology spend most of their time on social media platforms. To raise awareness among this target audience, a 'square game' was developed and implemented, resulting in significant findings. The obtained results have been analyzed in line with the study's objectives, and recommendations have been proposed for various stakeholders. Thus, based on the findings and results obtained in this study involving middle school students, the following recommendations are provided for those conducting similar studies and stakeholders involved in the subject.

Recommendations for Teachers

Providing teachers, who are integral to the education process, with information on cyberbullying and its various forms through various activities will be beneficial. They should be educated on the strategies to employ in dealing with these issues. The most effective way to cope with the problem is prevention before it arises, and teachers have significant responsibilities in this regard. Teachers, who serve as role models for students, talking to students about cyberbullying, its types, and consequences will contribute significantly. Additionally, teachers enlightening students about the potential negative consequences of online actions on offline life will also provide substantial benefits.

Recommendations for Teacher Educators

Teacher educators should prioritize conveying preventive strategies to teachers in their efforts on cyberbullying. It would be beneficial to educate teachers on practices that reflect how to deal with this issue brought about by the digital world.

Recommendations for Decision-Makers

To effectively combat cyberbullying, schools can consider offering a course on cybersecurity aimed at mitigating its potential negative impact on the school climate, the teaching-learning process, and students' emotional states. Additionally, guidance counselors and experts in the field can provide seminars for students on digital rights and responsibilities, digital ethics and privacy, and digital empathy. Implementing measures that do not tolerate

any form of cyberbullying behavior or content among students and incorporating these into reward and disciplinary regulations can be effective. Finally, developing ethical codes to reduce cyberbullying and conducting public awareness campaigns through public service announcements can contribute to societal awareness.

Recommendations for Assessment and Evaluation Specialists

Especially under the leadership of counseling services and Student Support Units (RAM), periodic assessments of students' involvement in cyberbullying (as cyberbullies) and being subjected to cyberbullying (as cyber victims) can be conducted. Based on the findings obtained from these assessments, effective measures can be developed to address the situation.

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Ethics Committee Decision

This study was conducted with the research permission of the Eskişehir Provincial Directorate of National Education on 03.01.2023, with the decision number 67491072