Cyber Jungle Guardian, Blue Elephant

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Background

In today's digital age, connecting with people and solving problems in the digital world has become more critical than ever before. 'Cyber Jungle Guardian Blue Elephant' comes in - a powerful solution that leverages digital technology to safeguard your online presence. With 'Cyber Jungle Guardian Blue Elephant,' you can rest easy knowing that you are protected from cyber threats and can enjoy the digital world with peace of mind. Along with the agenda of this meeting, I would like to introduce the research-practice model based on the background and achievements of the project called "Blue Elephant," which is being carried out by the BTF and Konkuk Univ. research team.

South Korea has seen one of the fastest adoption rates for digital devices since the industrial era. The rapid development and utilization of digital technologies in cities have increased urban job opportunities, and the concentration of economic activities in large cities has led to increased domestic migration. The migration of people to big cities has naturally led to changes in family structure.

First, the extended family began to shift to a couple-centered nuclear family, likely due to the high cost of living in cities and frequent intra-city mobility in search of economic and social opportunities. In smaller families, children in dual-earner households do not have the opportunity to develop the social norms and interpersonal skills they once learned from family members. Children who spend more time alone rely on digital devices to learn academic, relationship, and interpersonal skills.

Advances in digital technology have brought convenience to social interactions, but they also bring challenges. Social media (SNS) and messenger apps make communication quick and easy. However, online communication can also lead to miscommunication, as people are less likely to pick up on cues such as non-verbal expressions and nuances. This can increase emotional isolation due to online criticism, fights, and malicious comments.

Digital technology-based activities on online platforms, such as online shopping, social media activity, and online gaming, can lead to smartphone and digital addiction. This can cause individuals to lose their balance with the natural world and decrease their quality of life, weakening their academic, professional, and daily functioning. The problems that digital technology has brought to the interaction of various people in society are having a severe negative impact on our society in the form of cyberbullying.

Digital Ecosystem Pollution: Cyberbullying

As we have seen, the development of digital technology has changed how we communicate and connect our interactions 24 hours a day. This has led to a side effect called cyberbullying, which includes not only intentional, repeated, and malicious slander of others in digital so-called cyberspace but also insults, intimidation, and threats (Hinduja & Patchin, 2012; Li, 2007)—the unique nature of cyberbullying compounds its harm. Cyberbullying can occur continuously, without time and space limitations. Perpetrators do not necessarily have to be in the same room or share the same time as their victims to perpetrate cyberbullying behaviors, and victims can be exposed to violence on an ongoing basis. In addition, the anonymity provided by digital platforms makes it easy for multiple perpetrators to engage in abusive behavior. In addition, the anonymity provided by digital platforms makes it easy for multiple perpetrators to participate in the abuse. These records are constantly replicated online, perpetuating the harm. In addition, these records are difficult to erase from the cyber world entirely, so they haunt victims for the rest of their lives, and neither the victim nor the perpetrator is immune.

Over the past decade, the issue of cyberbullying has attracted the attention of many researchers. With the rapid development of information and communication technologies (ICTs) and the increasing importance of ICTs in daily life, the need for research on aggressive behavior in cyberspace is increasing. The age of ICT use is getting younger and younger, and ICTs are becoming a part of young people's daily lives, exposing them to risky environments such as cyberbullying. The negative impact of cyberbullying on young people's adjustment and development is substantial. Adolescents who have experienced cyberbullying are more likely to have conduct problems, hyperactivity, smoking, and drinking, and cyberbullying victimization can lead to high levels of mental health problems such as depression, anxiety, and suicidal ideation (Betts, 2016). In particular, cyberbullying victimization has been shown to increase the likelihood of externalizing and internalizing problem behaviors more than school bullying victimization, and victims report significant distress due to fear, hopelessness, and helplessness in not knowing who the perpetrator is and not being able to stop the bullying (Raskauskas &Stoltz, 2007).

Cyberbullying would be good to emphasize the importance of parental education, home management, and supervision to ensure that children and adolescents are not exposed to cyberspace for extended periods without family intimacy and face-to-face interaction. Reducing usage time would also be essential to ensure that children and adolescents are not exposed to digital environments for too long.

What is the Blue Elephant?

Blue Elephant is an educational program and framework for responding to and reducing cyberbullying. It provides total care from prevention education to post-treatment for the victims and their loved ones. Also, it includes activities to spread awareness of the problem and propose policies to society at large. Blue Elephant is a 10-year long-term project in which the Blue Tree Foundation, Ministry of Education, Ministry of Gender Equality and Family, National Police Agency, Community Chest of Korea, and Samsung (public, private, and corporate) work together to create a safe and peaceful world in cyberspace to prevent and

combat cyberbullying. Reducing cyberbullying and improving prosocial competence based on the classification of 24 personality strengths prescribed by the American Society for Positive Psychology, Professor Emeritus Yong-lin Moon of Seoul National University revised the six virtues of practice in consideration of Korea's cultural and social background (six virtues: honesty, promise, forgiveness, responsibility, consideration, and ownership) and aims to disseminate successful models of cyberbullying prevention education and present international standards.

Blue Elephant's preventive education consists of an educational method that allows students to experience and realize themselves with professional lecturers rather than general knowledge transfer, simple memorization, or one-time education. "Preventive education going to schools" is a concept of exploring the cyber jungle to increase the engagement of participants. The entire class is a process in which youth follow the explorer (instructor) to explore the cyber jungle. The purpose is to reduce cyberbullying in the classroom by promoting appropriate attitudes and efficacy related to cyberbullying and strengthening prosocial competence.

The prevention education consists of pre-learning, on-site training, and post-learning (7 sessions in total). Pre-learning is conducted online to learn about understanding and dealing with cyberbullying. On-site education is conducted through experiential activities using the story of the Blue Elephant character, which is fun, engaging, and inspiring. The post-training is organized online so parents can practice with their children at home. In addition, the number of volunteer instructors is increasing due to Samsung employees' high level of interest and funds provided as part of the corporate social responsibility program. In addition, we use the Cyberbullying Diagnostic Scale to objectively measure and analyze the effectiveness of preventive education through three tests: pre-test, post-test, and follow-up test.

How effective is the Blue Elephant?

My colleague and I developed the Cyberbullying Diagnostic Scale Test and researched to verify the effectiveness of the Blue Elephant cyberbullying prevention education program. In the first year (2020), we developed essential items by constructing an operational definition and sub-factors of cyberbullying. In the second year (2021), we validated the Cyberbullying Diagnostic Test Scale and constructed an online report sheet. In the third year (2022), we aimed to analyze the effectiveness of the Blue Elephant cyberbullying prevention education by utilizing the Scale. Pre- and post-effectiveness tests were conducted on the youth who participated in the preventive education.

The results of the pre-and post-test mean differences in cyberbullying attitudes and coping efficacy of all students are shown in Table 1. The results showed that the pre-post mean differences were significant for attitudes toward perpetrators ($t=2.381$, $p<.05$), individual coping efficacy ($t=-5.604$, $p<.001$), defending efficacy ($t=-4.249$, $p<.001$), and class-level coping efficacy ($t=-4.255$, $p<.001$). Negative attitudes toward the perpetrator, individual coping efficacy, defending efficacy, and class-level coping efficacy all showed significantly higher post-scores than pre-scores.

Table 1. Mean Differences of Pre-Posttest in Cyberbullying Attitudes and Coping Efficacy

	Pretest		Posttest		Mean Diff.	*t*	*p*
	M	SD	M	SD			
Attitudes toward perpetrators	4.597	.582	4.562	.596	.035	2.381	.017
Attitudes toward victims	4.333	.624	4.324	.641	.009	.641	.522
Coping Efficacy	4.155	.896	4.264	.839	-.109	-5.604	.000
Defending Efficacy	4.350	.711	4.411	.699	-.061	-4.249	.000
Class-Coping Efficacy	4.385	.706	4.451	.679	-.066	-4.255	.000

Table 2. Mean Differences of Pre-Posttest in Prosocial Competencies

Variables	Pre-test		Post-test		Mean Diff.	*t*	*p*
	M	SD	M	SD			
Prosocial competence	4.004	.558	4.112	.566	-.108	-11.611	.000
Honesty	4.050	.725	4.132	.718	-.082	-5.671	.000
Promise	3.546	.842	3.699	.827	-.152	-9.385	.000
Forgiveness	3.808	.810	3.946	.813	-.139	-7.611	.000
Responsibility	4.251	.685	4.347	.670	-.096	-6.403	.000
Consideration	3.929	.797	4.054	.789	-.125	-8.266	.000
Ownership	4.439	.596	4.492	.591	-.053	-3.988	.000

The results of the pre-post mean difference analysis of prosocial competencies for all students are shown in Table 2. The analysis showed that the pre-post mean difference was significant for prosocial competence ($t=-11.611$, $p<.001$), honesty ($t=-5.671$, $p<.001$), promise ($t=-9.385$, $p<.001$), forgiveness ($t=-7.611$, $p<.001$), responsibility ($t=-6.403$, $p<.001$), consideration ($t=-8.266$, $p<.001$), and ownership ($t=-3.988$, $p<.001$) among the prosocial competencies. Prosocial competence, honesty, promise, forgiveness, responsibility, consideration, and ownership all had significantly higher post-scores than pre-scores.

Currently, we analyzed the effectiveness of Blue Elephant Cyberbullying Prevention Education in 2023 using a quasi-experimental design that separates students who participated in the program (experimental group) from those who did not (control group). Blue Elephant Cyberbullying Prevention Education is currently being implemented in some elementary schools, and we want to better understand the program's effectiveness by examining differences in student gender, grade, region, online behavior, and school characteristics. In addition, by

examining the differences in the form in which Blue Elephant Cyberbullying Prevention Education is operated (e.g., online or offline) and the characteristics of the instructors along with the individual characteristics of the students, we will explore how to improve and operate Blue Elephant Cyberbullying Prevention Education in the future.

Preliminary analyses showed that group differences in post-cyberbullying attitudes and efficacy were examined after controlling for pre-cyberbullying attitudes and coping efficacy scores. Significant differences were found for attitudes toward perpetrators ($F=5.25$, $p<.05$), attitudes toward victims ($F=7.89$, $p<.01$). However, no significant differences were found for individual coping efficacy ($F=2.90$, $p>.05$), defending efficacy ($F=2.81$, $p>.05$), and class-level coping efficacy ($F=3.53$, $p>.05$). Specifically, negative attitudes toward the perpetrator and positive attitudes toward the victim were significantly higher in the experimental group than in the control group.

Table 3. Group Differences in Cyberbullying Attitudes and Coping Efficacy

Variables	Experiment		Control		Mean Diff.	*F*	*p*	η^2
	M	*SD*	*M*	*SD*				
Attitude toward Perpetrator	4.33	.56	4.27	.56	.06	5.25	.022	.003
Attitude toward Victim	4.19	.67	4.09	.70	.10	7.89	.005	.004
Individual Coping Efficacy	4.38	.77	4.30	.83	.08	2.90	.089	.001
Individual Defending Efficacy	4.40	.70	4.34	.75	.06	2.81	.094	.001
Class-level Coping Efficacy	4.37	.76	4.30	.80	.07	3.53	.060	.002

Table 4. Group Differences in Prosocial Competencies

Variables	Experiment		Control		Mean Diff.	*F*	*p*	η^2
	M	*SD*	*M*	*SD*				
Prosocial Competence	4.08	.57	4.01	.60	.07	19.38	.000	.009
Honesty	4.02	.73	3.95	.73	.07	7.97	.005	.004
Promise	4.08	.70	4.01	.73	.08	10.31	.001	.005
Forgiveness	3.45	.93	3.40	.91	.06	7.40	.007	.004
Responsibility	4.35	.69	4.29	.71	.07	16.19	.000	.008
Consideration	4.09	.78	4.01	.82	.08	9.43	.002	.005
Ownership	4.47	.61	4.44	.68	.04	4.06	.044	.002

After controlling for pre-score, group differences in prosocial competencies were examined. Significant differences were found in the overall prosocial competence ($F=19.38$, $p<.001$), honesty ($F=7.97$, $p<.01$), promise ($F=10.31$, $p<.01$), forgiveness ($F=7.40$, $p<.01$), responsibility ($F=16.19$, $p<.001$), consideration ($F=9.43$, $p<.01$), and ownership ($F=4.06$, $p<.05$). Students in the experimental group scored higher than the control group on prosocial competence and significantly higher on six sub-competencies: honesty, promise, forgiveness, responsibility, consideration, and ownership.

Suggestions

Through this youth cyberbullying prevention education project, "Cyber Jungle Guardian Blue Elephant," I would like to offer three suggestions to the participants in this conference.

First, Blue Elephant has been expanding prevention education to small cities (rural and mountainous areas) every year, rather than concentrating on large cities in Korea, and has been operating prevention education from early childhood (infants and lower elementary grades) in consideration of the fact that the age of violence experience is gradually becoming younger. It is good to emphasize that prevention education should be spread throughout the region, not just in the city, especially since there are many children and young people from multicultural backgrounds in the region who may be more prone to discrimination and prejudice and need to be educated to protect, care for, and develop prosocial skills. We need more attention from the international community so that it can spread as an international preventive education.

Second, we hope Blue Elephant will spread as an international model that brings together countries, NGOs, companies, and experts. Countries and companies closely connected to families and megatrends need to take responsibility for solving global problems and contribute to the common goal of sustainable development by creating shared value.

Third, as urbanization and new technologies increase, there must be policy support by creating an international forum for public discussion. It is necessary to share success stories to find sustainable solutions and to bring them to the international community for global cooperation. Blue Elephant holds an annual forum on cyberbullying prevention, where experts from international organizations, governments, corporations, civil society, and youth share their ideas on preventing cyberbullying. Such a forum will only be possible if we work more closely with international organizations and the international community.

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