



PROMOTING CYBER SAFETY IN SCHOOLS: AN ASSESSMENT OF THE #BECYBERSAFE PROJECT'S EFFECTIVENESS IN THE PHILIPPINES

Jan Vincent S. Carmen, RCrim., PhD Crim

Faculty Member, Nueva Ecija University of Science and Technology, Philippines

Article DOI: <https://doi.org/10.36713/epra14442>

DOI No: 10.36713/epra14442

ABSTRACT

The study assessed the implementation of #BeCyberSafe Project in the Second Congressional District in the Province of Tarlac. It included 219 teachers, 86 non-teaching staff, 240 parents, and 370 students as the study's respondents. The study used a quantitative research approach. It was revealed that the four groups of respondents perceived the overall implementation of #BeCyberSafe Project as highly implemented, but, there are no statistically significant differences on the perceived level of implementation of the respondents when they are grouped accordingly. Moreover, it was also revealed that the #BeCyberSafe project for the respondents is highly impactful for their cognitive, psychomotor, and affective development. Consequently, the results showed that there are no statistically significant differences on the perceived level of the impact of the implementation of the respondents when they are grouped accordingly. As a result, it is recommended that more respondents (e.g., body of Local Government Unit personnel, etc.) should be included in the study so their perceptions on the implementation of the #BeCyberSafe Project can be added to the bases of the overall assessment of the success of the said project.

KEYWORDS: Assessment, #BeCyberSafe Project, Implementation, Project Management, Attainment of Objectives, Delivery of Content, Provision of Support Materials, and Project Management Team

INTRODUCTION

Currently, the internet and related technology rule many areas of our everyday life, including banking, education, and business. However, it is not surprising that a shadowy criminal underworld known as cybercrime evolved because of this ongoing use of technology and innovation. This is because the internet is becoming an important part of our life (Prajapati, 2020). Everyone is very much dependent on the cyber world which also increases the space for cybercrime. Cybercrime is evolving as a very serious issue in today's scenario. The internet becomes an integrated part of our lives because it brings joy or happiness but sometimes it becomes a nightmare. (Sterling, 2022)

To define deliberately, cybercrime is construed as using a computer as a weapon, or instrument, to advance or secure something deemed illegal. (BlueVoyant, 2022). Cybercrime affects us all: as individuals and society as a whole. On the one hand, new technologies have made many aspects of our lives easier, from social interactions to banking, shopping and more. On the other hand, our increasing reliance on the Internet has created more risks and opened new paths for criminal activity. Cyberattacks can happen to anyone at any time. (Interpol, 2022).

Now, according to Cybersecurity Ventures (2020), the cost of global cybercrime will increase by 15% yearly during the next five years, reaching \$10.5 trillion USD annually by 2025 from \$3 trillion USD in 2015. In addition to being exponentially larger than the damage caused by natural disasters in a year, this represents the largest transfer of economic wealth in history and poses a threat to the incentives for innovation and investment. It will also be more lucrative than the global trade in all major illegal drugs put together. The estimated cost of damage is based on historical data on cybercrime, which includes recent year-over-year increases, a sharp rise in organized criminal gang hacking activities backed by hostile nation-states, and a cyberattack surface that will be orders of magnitude larger in 2025 than it is now.

On a national level, Digital Infrastructure Users in Southeast Asia, particularly in the Philippines, are very engaged with mobile internet, spending much more time than their global peers. According to 'Digital 2021' research by We Are Social and Hootsuite, the Philippines topped the chart by spending 5.5 hours per day on mobile internet, followed by Thailand in third place and Indonesia in fourth place, compared to the global average of 3.4 hours. As such, participation in the Platform Economy is likely to be via mobiles, requiring mobile internet. Therefore, one of the Digital Infrastructure metrics is the mobile internet penetration rate among the 18+ population of each country. The higher the penetration rate, the better the accessibility to participate in the Platform Economy, but the more they can be exposed to violating cybercrime law (Kemp, 2022).

Still in the Philippines, there was a case study of cybercrime in the country which revealed all documented cybercrime cases administered by Li (2021). The most prevailing was the Assault by Threat, which is the threatening of a person with fear for their lives or the lives of their families. The main medium or tools used by the cybercriminals are computer networks such as email, videos, or phones. In addition, child pornography also tops as one of the most pressing issue related to cybercrime affecting Filipino children. Based on the documents, cybercriminals exploit children, either male or female, through the use of computer networks to create, distribute or access material related to the sexual exploitation of children.

Just recently, Arceo (2023), an authority in PNP Gerona, Tarlac, oriented the parents of the students who are learning in schools in Gerona that there are cases of rape or attempted rape because of reckless communications of students to strangers via Facebook or Instagram. That is why, PNP Gerona are going to all schools in the municipality of Tarlac, especially among senior high school students, parents, teachers, and non-teaching personnel to warn them about these cases of cybercrime.



Speaking, here in Tarlac Province, from where the current researcher lives, there are three (3) congressional districts. In second congressional district, where the current researcher is currently a resident, has eighteen (18) public secondary schools, five of them have conducted 2 conferences/trainings regarding cybercrime awareness as part of the schools' initiation for #BeCyberSafe Project for their students, and the thirteen remaining schools only conducted 1 relevant conference/training during the past four school years. This information is validated through the School-Based Management (SBM) of the 18 principals of the schools.

Although many studies have examined the effects of cybercrime, there is a lack of research regarding the assessment of the implementation of the #BeCyberSafe Project. In fact, there was no research made regarding the in the entire DepEd Tarlac Province since the time of its implementation. This research gap limits our understanding of this project and can optimize students, parents, and teachers, online experiences, and cope with potential risks. Therefore, this study aimed to assess the implementation of the #BeCyberSafe project in the second congressional district of Tarlac aims to promote awareness among students, teachers, and parents about the importance of cybersecurity and the potential risks of online activities.

OBJECTIVES OF THE STUDY

1. To determine the perceived level of implementation of the four (4) group of respondents on the #BeCyberSafe Project of DepEd in second congressional district in the Province of Tarlac in terms of project management; attainment of objectives; delivery of content; provision of support materials; and project management team.
2. To determine the impact of the implementation of #BeCyberSafe project as perceived by the respondents in terms of cognitive development; psychomotor development; and affective development.
3. To determine what degree are the challenges encountered in the implementation of the #BeCyberSafe of DepEd in in second congressional district in the Province of Tarlac in terms of project management; attainment of objectives; delivery of content; provision of support materials; and project management team.

4. To propose measures based on the findings of the study.

THEORETICAL FRAMEWORK

There are two theories which the current study is anchored with. First is the social control theory of Hirschi (1969). The social control theory implies a set of social measures, processes that encourage people to behave according to the law. The theory seeks to understand the ways moral codes, values, norms, commitments and beliefs reduce deviant behavior. On the other hand, the second theory is the well-known Reinforcement Sensitive Theory or RST which is a theory of motivation that posits that individuals have differing responses to their environment derived from different sensitivities of basic brain systems that respond to either rewarding or punishing stimuli (Gray, 1973).

METHODOLOGY

This study used a quantitative research approach. In terms of its research design, a descriptive-comparative design was used. It utilized surveys or questionnaires to gather the quantitative data, which included the perceived level of implementation of the #BeCyberSafe Project, perceived level of impact of this project, and the encountered challenges in regard to the implementation of the mentioned project, from the four groups of respondents. Likert scale has been utilized as the primary guide of measuring and interpreting the gathered numerical data.

Moreover, this study was conducted in the 18 public secondary schools of the Second Congressional District of the Division of Tarlac Province. The entire population of teaching staff, non-teaching staff, parents, and students in the 18 schools were considered to be part of the current study. However, since there are big populations for each group of respondents, the researcher utilized a purposive sampling technique, which is a kind of non-probability sampling method.

RESULTS AND DISCUSSIONS

Perceived level of implementation of the four (4) group of respondents on the #BeCyberSafe Project of DepEd in second congressional district in the Province of Tarlac

Table 1. Project Management

Assessment of the implementation of #BeCyberSafe Project by the respondents in terms of Project Management

Indicator	Students		Parents		Teachers		NTP		Total	
	M	D	M	D	M	D	M	D	M	D
1. The project is delivered as planned.	2.79	HI	2.88	HI	2.88	HI	2.74	HI	2.83	HI
2. The project is well-managed.	2.71	HI	2.75	HI	2.83	HI	2.76	HI	2.75	HI
3. The project is well-structured.	2.81	HI	2.91	HI	2.93	HI	3.02	HI	2.89	HI
4. The project is well-funded.	2.69	HI	2.75	HI	2.77	HI	2.90	HI	2.74	HI
5. Appropriate orientation is given to faculty members.	2.72	HI	2.74	HI	2.73	HI	2.64	HI	2.72	HI
Total	2.75	HI	2.81	HI	2.83	HI	2.81	HI	2.79	HI

Notes: NTP=Non-Teaching Personnel, M=Mean, D=Description, VHI=Very High Implementation, HI=High Implementation, LI=Low Implementation, VLI=Very Low Implementation

The table shows the data on the assessment of the implementation of #BeCyberSafe project by the respondents in terms of project management. From the perspectives of the 4 groups of respondents, to wit, students, parents, teachers and non-teaching personnel, unified responses were identified. Their overall assessment on the implementation of the #BeCyberSafe project in terms of project management is interpreted as High Implementation (HI) with a mean score of 2.79.

In 2019, a forum on Cyber Safety among high school students in Quezon City was administered as one of the activities of #BeCyberSafe Project of DepEd. This is actually a kickoff series of knowledge learning activities spearheaded by SEAMEO

INNOTECH (2019), an allied partner of DepEd in implementing varieties of programs, projects, and activities for the benefit of teachers, parents, students, and schools as a whole. The evaluation was summarized and it was revealed that the niche of the forum was its observable well-structured implementation among students.

In Tarlac, however, there are no published reports regarding the overall evaluation of the activities implemented under #BeCyberSafe Project. Nevertheless, the verbatims of the random students, parents, non-teaching staff, and faculty members of the 18 schools of the participating schools in this study are, “Maayos po ang mismong implementation ng activities,” “Okay naman po



ang flow mula umpisa hanggang dulo,” and “Hindi po gaanong magulo at nakakalito,” as recorded by the researcher during his informal interview with some of the respondents. Though not

everyone was interviewed, the quantitative data would suffice, telling that the #BeCyberSafe Project of DepEd implemented in all 18 schools are well-structured.

Table 2. Attainment of Objectives

Assessment of the implementation of #BeCyberSafe Project by the respondents in terms of Attainment of Objectives

Table with 11 columns: Indicator, Students (M, D), Parents (M, D), Teachers (M, D), NTP (M, D), Total (M, D). Rows include project objectives clarity, relevance, and attainment, plus a total row.

Notes: NTP=Non-Teaching Personnel, M=Mean, D=Description, VHI=Very High Implementation, HI=High Implementation, LI=Low Implementation, VLI=Very Low Implementation

Table 2 demonstrates the assessment of the respondents on the implementation of #BeCyberSafe project in terms of attainment of objectives. The table above shows that the overall assessment of the respondents is Very High Implementation, with a mean score of 3.42.

The launching of this project is certainly very welcome because we are now recognizing that harm can be inflicted not only in physical ways, not only by the destruction of our infrastructure and our facilities, the books that we read, what we teach our children, but also through cyberspace, as said by the former DepEd Secretary, Briones (2018).

Table 3. Delivery of Content

Assessment of the implementation of #BeCyberSafe Project by the respondents in terms of Delivery of Content

Table with 11 columns: Indicator, Students (M, D), Parents (M, D), Teachers (M, D), NTP (M, D), Total (M, D). Rows include project content appropriateness, source reliability, session effectiveness, teaching methods, logical sequence, and student participation, plus a total row.

Notes: NTP=Non-Teaching Personnel, M=Mean, D=Description, VHI=Very High Implementation, HI=High Implementation, LI=Low Implementation, VLI=Very Low Implementation

Across the four sets of respondents’ responses on the table above, it can be noticed that they all agreed that the project content delivered during the implementation of the project among their schools is appropriate to the students’ learning comprehension. This means that the information being shared to the audience can be easily understood no matter how complicated the concepts of

the cybersafe could be. According to the respondents, particularly the students and teachers, during the informal interview of the researcher, some activities given were supported by videos, games, and collaborative learning which contents are all simplified. Some terms are joined with photos and animated graphics to be easily understood.

Table 4. Provision of Support Materials

Assessment of the implementation of #BeCyberSafe Project by the respondents in terms of Provision of Support Materials

Table with 11 columns: Indicator, Students (M, D), Parents (M, D), Teachers (M, D), NTP (M, D), Total (M, D). Rows include material preparation, adequacy, and timing, plus a total row.

Notes: NTP=Non-Teaching Personnel, M=Mean, D=Description, VHI=Very High Implementation, HI=High Implementation, LI=Low Implementation, VLI=Very Low Implementation

All of the responses revealed that the materials are prepared beforehand, or the materials are already produced before conducting the activities for the #BeCyberSafe Project in the

schools, but they are not adequate. This means that though there are videos presented to teach the students, not everything about cybercrime are touched by these videos, thus there are still some



concepts which are not relayed to the students, leaving them to have multiple queries and misconceptions about cybercrime.

In Pasig City, as seen by the researcher in their official website, only 4 video materials are prepared by the division office. In Dasmarias, only 4 video materials, too. In Tarlac Province, as

what is stated by the faculty members, there are only 2-3 video materials showed to the students during the activity. That number of video materials cannot suffice to explain all needed concepts about cybercrime to the students, though it is still commendable that the materials are simplified, student-friendly, and prepared prior to the activity itself.

Table 5. Project Management Team

Assessment of the implementation of #BeCyberSafe Project by the respondents in terms of Project Management Team

Indicator	Students		Parents		Teachers		NTP		Total	
	M	D	M	D	M	D	M	D	M	D
1. School heads, guidance designates, advisers and other concerned teachers are skillful in sharing information to students about the #BeCyberSafe project	3.86	VHI	3.85	VHI	3.84	VHI	3.79	VHI	3.85	VHI
2. School heads, guidance designates, advisers and other concerned teachers are courteous and intellectual in dealing with questions.	3.84	VHI	3.84	VHI	3.85	VHI	3.84	VHI	3.84	VHI
3. School heads, guidance designates, advisers and other concerned teachers are well-organized and productive in giving activities to students in regard to the said project.	3.89	VHI	3.88	VHI	3.88	VHI	3.84	VHI	3.88	VHI
4. School heads, guidance designates, advisers and other concerned teachers are responsive to the needs of the student-participants during the implementation of the project.	3.90	VHI	3.90	VHI	3.92	VHI	3.85	VHI	3.90	VHI
Total	3.87	VHI	3.87	VHI	3.87	VHI	3.83	VHI	3.87	VHI

Notes: NTP=Non-Teaching Personnel, M=Mean, D=Description, VHI=Very High Implementation, HI=High Implementation, LI=Low Implementation, VLI=Very Low Implementation

The table above shows that the overall assessment of the respondents is Very High Implementation, with a mean score of 3.87. Prior to the data analysis, the researcher is already surprised when he learned that the teachers in the schools admitted that they are not given proper training regarding cybercrime, though they are the major implementors of the #BeCyberSafe project in their respective schools. Most of them rely on self-reading, on top of their other tons of responsibilities in school. This is why they admitted that when students ask them about certain queries, there are time when they know the answers, but often times they are clueless about more complex concepts. This is not surprising as

the researcher found out that teachers are not being oriented first or trained first before being required to implement activities to comply with the said cybercrime project. This is evident as the quantitative results in the table above showed that the respondents gave lowest scores in terms of the skills of the project management team in answering the queries of students or courteous enough in dealing with students who ask questions about cybercrime, though it is still commendable to find out that the project management teams are responsive to the needs of the students regardless.

Table 6. Impact of the Implementation of #BeCyberSafe Project as Perceived by the Respondents (Cognitive Development)

Indicator	Students		Parents		Teachers		NTP		Total	
	M	D	M	D	M	D	M	D	M	D
1. I learned the definitions/nature of different punishable acts through #BeCyberSafe Project.	3.34	VHI	3.35	HI	3.37	VHI	3.36	VHI	3.35	VHI
2. I am not confused with the definitions of technical terms under cybercrime law.	3.26	VHI	3.25	HI	3.28	VHI	3.24	HI	3.26	VHI
3. I learned what actions I must not do to avoid violations.	3.17	HI	3.19	HI	3.22	HI	3.31	VHI	3.20	HI
4. I can recognize potential violative action regarding cybercrime.	3.25	HI	3.24	HI	3.29	VHI	3.24	HI	3.25	HI
5. I can explain the punishable acts of cybercrime law properly when someone asks me.	3.15	HI	3.16	HI	3.16	HI	3.17	HI	3.16	HI
6. I can decide properly how I should act online and how must I deal with people who are violating the acts.	3.18	HI	3.18	HI	3.19	HI	3.16	HI	3.18	HI
7. I no longer feel recklessness and am more careful with my thinking and actions on the internet.	3.21	HI	3.15	HI	3.15	HI	3.17	HI	3.17	HI
Total	3.22	HI	3.22	HI	3.24	HI	3.24	HI	3.23	HI

Notes: NTP=Non-Teaching Personnel, M=Mean, D=Description, VHI=Very High Impact, HI=High Impact, LI=Low Impact, VLI=Very Low Impact



The table above shows that the overall assessment of the respondents is High Impact, with a mean score of 3.23. As can be conspicuously seen in the responses of the respondents, the highest score was given to the statement which is about the project being able to inform the students the definitions or nature of the different punishable acts that they may commit in the cyberworld. Based from the interview responses of the teachers in 18 schools, the focuses of the activities, particularly with the use of video

lessons for the students, are the nature and definitions of crimes or cybercrime punishable acts and some example situations how these punishable acts can be observable. Though it is seen from the previous tables that these materials are inadequate for the learners to fully understand the entirety of cybercrime, still, the project helped the students to comprehend the definitions and natures of these acts, significantly affecting their cognitive development.

Table 7. Impact of the Implementation of #BeCyberSafe Project as Perceived by the Respondents (Psychomotor Development)

Indicator	Students		Parents		Teachers		NTP		Total	
	M	D	M	D	M	D	M	D	M	D
1. I became an advocate of cybercrime prevention.	3.53	VHI	3.57	VHI	3.54	VHI	3.44	VHI	3.41	VHI
2. I do not feel demotivated to be a good citizen.	3.55	VHI	3.60	VHI	3.52	VHI	3.45	VHI	3.26	VHI
3. I do not feel hesitant to tell my friends/ colleagues/ family about what they might be doing wrong online.	3.65	VHI	3.67	VHI	3.64	VHI	3.58	VHI	3.40	VHI
4. I am more respectful toward people around me.	3.68	VHI	3.70	VHI	3.70	VHI	3.62	VHI	3.53	VHI
5. The project taught me safe habits while online.	3.66	VHI	3.67	VHI	3.62	VHI	3.58	VHI	3.46	VHI
6. I became more concerned about people violating the law.	3.65	VHI	3.65	VHI	3.61	VHI	3.53	VHI	3.40	VHI
7. I am willing to teach my friends/family about cybercrime.	3.49	VHI	3.45	VHI	3.43	VHI	3.55	VHI	3.52	VHI
Total	3.60	VHI	3.62	VHI	3.58	VHI	3.54	VHI	3.43	VHI

Notes: NTP=Non-Teaching Personnel, M=Mean, D=Description, VHI=Very High Impact, HI=High Impact, LI=Low Impact, VLI=Very Low Impact

The table above shows that the overall assessment of the respondents is Very High Impact, with a mean score of 3.43. The #BeCyberSafe Project has a positive effect among the respondents, that is to have the sense of more respect to the people around them. Being able to understand the concepts of cybercrime

and the consequences of the punishable acts that were focused during the implementation of the said project make the respondents feel the necessity and responsibility to deal other people nicely, both in person and online. That can be supported by the quantitative data presented in the table above as that notion was given the highest score among the rest.

Table 8. Impact of the Implementation of #BeCyberSafe Project as Perceived by the Respondents (Affective Development)

Indicator	Students		Parents		Teachers		NTP		Total	
	M	D	M	D	M	D	M	D	M	D
1. I know where to report if someone is a victim of cybercrime.	3.40	VHI	3.43	VHI	3.40	VHI	3.45	VHI	3.54	VHI
2. I am more careful when dealing with other people online.	3.29	VHI	3.24	HI	3.21	HI	3.30	VHI	3.55	VHI
3. I monitor my behavior when I engage myself in cyber world.	3.42	VHI	3.39	VHI	3.38	VHI	3.43	VHI	3.65	VHI
4. I do not waste time in addressing issues immediately when I commit violation.	3.52	VHI	3.52	VHI	3.54	VHI	3.52	VHI	3.68	VHI
5. I am more civil in dealing with people online and in person.	3.46	VHI	3.47	VHI	3.45	VHI	3.49	VHI	3.65	VHI
6. I understand the steps to be taken when victimized in cyberspace.	3.40	VHI	3.40	VHI	3.38	VHI	3.47	VHI	3.63	VHI
7. I can adapt to certain changes or updates in cyber world.	3.51	VHI	3.53	VHI	3.51	VHI	3.53	VHI	3.47	VHI
Total	3.43	VHI	3.43	VHI	3.41	VHI	3.46	VHI	3.59	VHI

Notes: NTP=Non-Teaching Personnel, M=Mean, D=Description, VHI=Very High Impact, HI=High Impact, LI=Low Impact, VLI=Very Low Impact



The table above shows that the overall assessment of the respondents is Very High Impact, with a mean score of 3.59.

Table 9. Challenges encountered in the Implementation of the #BeCyberSafe of DepEd in in Second Congressional District in the Province of Tarlac (Project Management)

Indicator	Students		Parents		Teachers		NTP		Total	
	M	D	M	D	M	D	M	D	M	D
1. There is no full awareness of cybercrime since the project was not properly implemented in our school.	3.93	ES	3.93	ES	3.97	ES	3.94	ES	3.94	ES
2. Some participants were not included in the activity conducted in the school about the #BeCyberSafe Project.	3.91	ES	3.91	ES	3.92	ES	3.83	ES	3.91	ES
3. Some activities of the project were delayed or cancelled due to hectic or overlapping school activities.	3.93	ES	3.93	ES	3.96	ES	3.94	ES	3.94	ES
4. Some of the activities of the project lacked real-world experiences or scenarios.	3.94	ES	3.94	ES	3.93	ES	3.92	ES	3.94	ES
5. The activities are conducted but in unorganized flow, manner or process.	3.93	ES	3.93	ES	3.96	ES	3.94	ES	3.94	ES
Total	3.93	ES	3.93	ES	3.95	ES	3.91	ES	3.93	ES

Notes: NTP=Non-Teaching Personnel, M=Mean, D=Description, ES=Extremely Serious, MS=Moderately Serious, SS=Somewhat Serious, NS=Not at all Serious

The table above shows that the overall assessment of the respondents is Extremely Serious, with a mean score of 3.93.

However, Bele, Dimc, Rozman and Jemec (2014) revealed that there is still a need for additional education regarding the dangers of cybercrime and the importance of information safety for all students, teachers, parents, and administrators. In order to successfully address the issue of cybercrime, specifically the punishable acts, it is important to implement successful

preventive techniques in all target groups. Therefore, it was concluded that continuous education plays an important role in raising the awareness of all users and in encouraging them to implement preventive techniques in everyday life. In order to evaluate the effectiveness of the cybercrime project implementation, an evaluation should be conducted and monitored. Through implementation of projects, such as the #BeCyberSafe Project, all internal stakeholders will not be putting their safety at stake.

Table 10. Challenges encountered in the Implementation of the #BeCyberSafe of DepEd in in Second Congressional District in the Province of Tarlac (Attainment of Objectives)

Indicator	Students		Parents		Teachers		NTP		Total	
	M	D	M	D	M	D	M	D	M	D
1. There is a poor focus on participating in the project since participants have many other responsibilities.	3.95	ES	3.95	ES	3.95	ES	3.91	ES	3.95	ES
2. Only a few activities are conducted in the school which are not enough to explain the entirety of the project.	3.90	ES	3.90	ES	3.91	ES	3.92	ES	3.91	ES
3. The activities regarding the project are not properly planned and executed.	3.95	ES	3.95	ES	3.97	ES	3.97	ES	3.96	ES
Total	3.94	ES	3.94	ES	3.94	ES	3.93	ES	3.94	ES

Notes: NTP=Non-Teaching Personnel, M=Mean, D=Description, ES=Extremely Serious, MS=Moderately Serious, SS=Somewhat Serious, NS=Not at all Serious

The Table above shows that the overall assessment of the respondents is Extremely Serious, with a mean score of 3.94. All of the groups

of respondents said that the activities regarding the #BeCyberSafe Project are not properly planned and executed.



Table 11. Challenges encountered in the Implementation of the #BeCyberSafe of DepEd in in Second Congressional District in the Province of Tarlac (Delivery of Content)

Indicator	Students		Parents		Teachers		NTP		Total	
	M	D	M	D	M	D	M	D	M	D
1. The activities do not cover all important information and contents about the project.	3.91	ES	3.91	ES	3.91	ES	3.91	ES	3.91	ES
2. The activities are conducted in a short period of time and participants do not remember anything because of that	3.97	ES	3.97	ES	3.97	ES	3.98	ES	3.97	ES
3. The activities are not engaging enough to catch the participants' attention and interest.	3.91	ES	3.91	ES	3.90	ES	3.92	ES	3.91	ES
4. There are misconceptions or mistakes in terms of the content of the activities conducted about the project.	3.97	ES	3.96	ES	3.97	ES	3.96	ES	3.97	ES
5. The activities conducted about the project are very tiring and time-consuming and it made the participants lose interest.	3.92	ES	3.92	ES	3.94	ES	3.96	ES	3.93	ES
Total	3.93	ES	3.93	ES	3.94	ES	3.95	ES	3.94	ES

Notes: NTP=Non-Teaching Personnel, M=Mean, D=Description, ES=Extremely Serious, MS=Moderately Serious, SS=Somewhat Serious, NS=Not at all Serious

The table above shows that the overall assessment of the respondents is Extremely Serious, with a mean score of 3.94. In the second congressional district of Tarlac Province, only 6 video materials are used by the teachers during their viewing activity

among students. According to the teachers themselves, they are not trained to create any other activities to widen more the opportunities of the students to learn cybercrime.

Table 12. Challenges encountered in the Implementation of the #BeCyberSafe of DepEd in in Second Congressional District in the Province of Tarlac (Provision of Support Materials)

Indicator	Students		Parents		Teachers		NTP		Total	
	M	D	M	D	M	D	M	D	M	D
1. The materials of the project, such as the videos, brochure, etc., are hard to understand.	3.97	ES	3.97	ES	3.97	ES	3.98	ES	3.97	ES
2. The number of materials disseminated by the speakers are not enough for the number of participants	3.88	ES	3.88	ES	3.88	ES	3.95	ES	3.89	ES
Total	3.92	ES	3.92	ES	3.92	ES	3.97	ES	3.93	ES

Notes: NTP=Non-Teaching Personnel, M=Mean, D=Description, ES=Extremely Serious, MS=Moderately Serious, SS=Somewhat Serious, NS=Not at all Serious

The table above shows that the overall assessment of the respondents is Extremely Serious, with a mean score of 3.93. It can be inferred that not only the video materials, which are the main materials used by schools to help students understand cybercrime, are short and not sufficient, but also hard to

comprehend, as what was said by the respondents of the student. Although the video materials are present both in English and Filipino language, still, some concepts left the audience in many queries.

Table 13. Challenges encountered in the Implementation of the #BeCyberSafe of DepEd in in Second Congressional District in the Province of Tarlac (Project Management Team)

Indicator	Students		Parents		Teachers		NTP		Total	
	M	D	M	D	M	D	M	D	M	D
1. The activities and other initiatives regarding the project in my school are understaffed.	3.97	ES	3.97	ES	3.97	ES	3.98	ES	3.97	ES
2. The activities did not prioritize networking with LGU and other external stakeholders.	3.91	ES	3.91	ES	3.89	ES	3.95	ES	3.91	ES
3. Some of the speakers or proponents of the activities of the project are not experienced about cybercrime.	3.96	ES	3.96	ES	3.96	ES	3.97	ES	3.96	ES
4. The place, either face-to-face or virtual, is not suitable for the administration of the activities of the project.	3.87	ES	3.87	ES	3.86	ES	3.92	ES	3.87	ES
5. The event's place, either face-to-face or virtual, is not conducive for learning among participants of the project.	3.90	ES	3.90	ES	3.89	ES	3.87	ES	3.89	ES
Total	3.92	ES	3.92	ES	3.92	ES	3.94	ES	3.92	ES

Notes: NTP=Non-Teaching Personnel, M=Mean, D=Description, ES=Extremely Serious, MS=Moderately Serious, SS=Somewhat Serious, NS=Not at all Serious

The table above shows that the overall assessment of the respondents is Extremely Serious, with a mean score of 3.92. The

researcher learned that the reasons why the activities and other initiatives regarding the project in the school are understaffed is



because of the following reasons. According to most of the teachers that the researcher has talked to, only the guidance designates, principal, SSG adviser, and head teacher are present during the conduct of film viewing. The advisers are also there to maintain orderliness of the event, but they are not the main team who are responsible for the activities itself. When there are queries and concerns, only these 4 people are in front to recognize and address the queries and concerns. That is why, if there are multiple needs coming from the students, these 4 people cannot simultaneously entertain the students in the scenario. This resulted to disorderliness, confusion, and disruption of the flow of the event.

CONCLUSIONS AND RECOMMENDATIONS

It is concluded that the four groups of respondents perceived the overall implementation of #BeCyberSafe project as highly implemented in terms of project management, attainment of objectives, delivery of content, provision of support materials, and project management team. But, there are no statistically significant differences on the perceived level of implementation of the respondents when they are grouped accordingly in terms of the five mentioned categories.

Moreover, it can also be concluded that the four groups of respondents perceived that the #BeCyberSafe project for them is highly impactful for their cognitive, psychomotor, and affective development. Consequently, the results showed that there are no statistically significant differences on the perceived level of the impact of the implementation of the respondents when they are grouped accordingly.

Furthermore, the four groups of respondents encountered extremely serious challenges in terms of project management, attainment of objectives, delivery of content, provision of support materials, and project management team. However, the results showed that there are no statistically significant differences on the challenges encountered by the respondents when they are grouped accordingly in terms of the five mentioned categories. Finally, a proposed intervention program was formulated based on the findings of the study.

Based from the findings and conclusions of the study, the following are hereby recommended.

1. It is highly recommended that more respondents (e.g., body of Local Government Unit personnel, PNP, etc.) should be included in the study so their perceptions on the implementation of the #BeCyberSafe Project can be added to the bases of the overall assessment of the success of the said project.
2. It is also recommended that aside from cognitive, psychomotor, and affective aspects of the group of respondents, other aspects should be included such as self-aspect, social aspect, and spiritual aspects, in the future similar study, to ensure effective and successful holistic development.
3. It is also highly recommended that the conducted activities for the #BeCyberSafe Project should be real-life-based, more meaningful and reliable, localized and student-friendly, properly planned and executed, and collaborative.
4. Aside from proposed measures, it is also recommended that future researchers consider creating policy brief, instructional materials, development plan, and other outputs to ensure that the implementation of #BeCyberSafe Project is successful.
5. Other researchers to conduct similar study, and include other parameters which are not included in the present study.

REFERENCES

Books

1. Bacon, A., Corr, P., & Satchell, L. (2018). *A reinforcement sensitivity theory explanation of antisocial behaviour. Personality and Individual Differences*, 87-93.
2. Barrego-Balsalobre, F., Martinez-Moreno, A., Morales-Banos, V., & Diaz-Suarez, A. (2021). *Influence of the Psychomotor Profile in the Improvement of Learning in Early Childhood Education. PMC*, 1-5.
3. Catota, F., Morgan, M., & Sicker, D. (2018). *Cybersecurity incident response capabilities in the Ecuadorian financial sector. Journal in Cybersecurity*, 1-25.
4. Chang, J., Venkatasubramanian, K., West, A., & Lee, I. (2013). *Analyzing and defending against web-based malware. ACM Digital Library*, 1-35.
5. Chism, K., & Steinmetz, K. (2018). *Strain theory and technocrime. In K. F. Steinmetz Technocrime and criminological theory*, 66-84.
6. Gray, J. (1973). *Causal theories of personality and how to test them. Multivariate analysis*, 302-354.
7. Griffith, J., Young, J., & Hankin, B. (2021). *2021 Longitudinal associations between positive affect and relationship quality among children and adolescents: Examining patterns of co-occurring change. Emotion*, 21.
8. Naragon-Gainey, K. (2019). *Distinguishing affective constructs: Structure, trait-vs. state-ness, and responses to affect. In The Nature of Emotion: Fundamental Questions*, 45-48.
9. Omega, J., & Alieto, E. (2019). *Teaching Literacy Through Play: Perspective from Filipino Early Childhood Teachers. Sci.Int.(Lahore)*, 31(3), 477-481, 2019, 3.
10. Satchell, L., Firth, J., Bacon, & Corr, P. (2018). *Risk as reward: Reinforcement sensitivity theory and psychopathic personality perspectives on everyday risk-taking. Personality and Individual Differences*, 162-169.
11. Solano, P., & Peinado, A. (2021). *Socio-economic factors in cybercrime: statistical study of the relation between socio-economic factors and cybercrime. In: CyberSA. IEEE*, 1-4.
12. Toch, E., Bettini, C., Shmueli, E., Radaelli, L., Lanzi, A., & Riboni, D. (2018). *The Privacy Implications of Cyber Security Systems: A Technological Survey. ACM Digital Library*, 1-27.
13. Tounsi, W., & Rais, H. (2018). *A survey on technical threat intelligence in the age of sophisticated cyber attacks. Science Direct*, 212-233.
14. UNICEF. (2018). *Inclusive Education Strategies: A Textbook. USA: University of Minnesota*.
15. Zimmermann, P., & UNICEF. (2018). *Inclusive Education Strategies: A Textbook. USA: University of Minnesota*. Iwanski, A. (2018). *Development and timing of developmental changes in emotional reactivity and emotion regulation during adolescence. Emotion regulation. A matter of time*, 117-139.

Published Researches (Print and Online)

1. Barrego-Balsalobre, F., Martinez-Moreno, A., Morales-Banos, V., & Diaz-Suarez, A. (2021). *Influence of the Psychomotor Profile in the Improvement of Learning in Early Childhood Education. PMC*, 1-5.
2. Coe-Odess, S., Narr, R., & Allen, J. (2019). *Emergent Emotions in Adolescence. In Handbook of Emotional Development*.
3. Cendana, D. (2019). *The empirical study on the impact of studentcentered learning application to cognition and social learning. IOP Conference Series: Materials Science and Engineering*, 65.
4. Chambers, D., & Berlach, R. (2015). *Assistive technology and teacher assistant. Emerald Group Publishing Limited*.
5. Drew, J. (2020). *A study of cybercrime victimisation and prevention: exploring the use of online crime prevention behaviours and strategies. Australia: Emerald Insights*.
6. Dumpang, C., Sedanza, M., & Caluza, L. (2021). *Needs Assessment of Grade 8 Instructional Materials in Teaching Filipino: A Phenomenology. Research Gate*, 12.
7. Griffith, J., Young, J., & Hankin, B. (2021). *2021 Longitudinal associations between positive affect and relationship quality among children and adolescents: Examining patterns of co-occurring change. Emotion*, 21.



8. Jamian, L. S., Ibadallah, B. X., & Fook, C. Y. (2013). A Conceptual Framework: The Influence of School Culture Types and Personality Traits on Psychological Empowerment amongst Secondary School Teachers in Malaysia. *Asian Journal of University Education*, 20.
9. Magno, C. (2017). Facilitating student learning in schools through a learning management system: an action research. *The Int. J. of Res. and Review*.
10. Nyavor, M. (2020). Provision of Teaching and Learning Materials that Enhance Participation of Students with Special Educational Needs in Inclusive Schools at Pokuase in the Greater Accra Region. *Journal of Education and Practice*, 1.
11. Sania, A., Sudfeld, C., Danaei, G., Fink, G., McCoy, D., & Zhu, Z. (2019). Early life risk factors of motor, cognitive and language development: a pooled analysis of studies from low/middle-income countries. *BMJ Open* 9.
12. Satchell, L., Firth, J., Bacon, & Corr, P. (2018). Risk as reward: Reinforcement sensitivity theory and psychopathic personality perspectives on everyday risk-taking. *Personality and Individual Differences*, 162-169.
13. Solano, P., & Peinado, A. (2021). Socio-economic factors in cybercrime: statistical study of the relation between socio-economic factors and cybercrime. In: *CyberSA. IEEE*, 1-4.
14. Toch, E., Bettini, C., Shmueli, E., Radaelli, L., Lanzi, A., & Riboni, D. (2018). The Privacy Implications of Cyber Security Systems: A Technological Survey. *ACM Digital Library*, 1-27.
15. Zenebe, Y., Kunno, K., Mekonnen, M., Bewuket, M., Birkie, M., Necho, M., . . . Akele, B. (2021). Prevalence and associated factors of internet addiction among undergraduate university students in Ethiopia: a community university-based cross-sectional study. *BMC Psychology*, 1.
2. Agora Patufet Infant School. (n.d., n.d. n.d.). Retrieved from Agora Patufet Infant School: <https://agorapatufet.com/happy-learning/childrens-psychomotor-development/>
3. ALL DIGITAL. (2021). Raising awareness online campaign on cybercrime within Rayuela project. Retrieved from ALL DIGITAL: <https://all-digital.org/awareness-campaign-rayuela/>
4. Anderson, J., & Rainie, L. (2018). Pew Research Center. Retrieved from Concerns about human agency, evolution and survival: <https://www.pewresearch.org/internet/2018/12/10/concerns-about-human-agency-evolution-and-survival/>
5. Arbiol, J., Cabajes, A., Chaonui, M., & Mancao, P. (2020). The Psychomotor and Cognitive Competencies of Filipino Children Ages 1-4: A Multiple Case Study. Research Gate, https://www.researchgate.net/publication/346991002_The_Psychomotor_and_Cognitive_Competencies_of_Filipino_Children_Ages_1-4_A_Multiple_Case_Study.
6. Bandakkanavar, R. (2022). General Technical Papers. Retrieved from Krazytech: <https://krazytech.com/technical-papers/cyber-crime>
7. Barton, K., & Tucker, B. (2021). LibreTexts Social Sciences. Retrieved from Powered by NICE CXone Expert: [https://socialsci.libretexts.org/Bookshelves/Communication/Public_Speaking/Exploring_Public_Speaking_3e_\(Barton_and_Tucker\)/07%3A_Incorporating_Evidence_into_Your_Speech/7.02%3A_Types_of_Supporting_Materials](https://socialsci.libretexts.org/Bookshelves/Communication/Public_Speaking/Exploring_Public_Speaking_3e_(Barton_and_Tucker)/07%3A_Incorporating_Evidence_into_Your_Speech/7.02%3A_Types_of_Supporting_Materials)
8. Bele, J., Dimc, M., Rozman, D. and Jemec, A. (2014). Raising Awareness of Cybercrime - The Use of Education as a Means of Prevention and Protection. <https://files.eric.ed.gov/fulltext/ED557216.pdf>
9. Bele, J., Dimc, M., Jemec, A., & Rozman, D. (2014). Raising awareness of cybercrime - The use of education as a means of prevention and protection. Retrieved from Research Gate: https://www.researchgate.net/publication/291317388_Raising_awareness_of_cybercrime_-_The_use_of_education_as_a_means_of_prevention_and_protection
10. BlueVoyant. (2022). What is Cybercrime? Types and Prevention. Retrieved from BlueVoyant: <https://www.bluevoyant.com/blog/cybercrime-types-and-prevention>
11. Briones (2018). DepEd, partners launch #BeCyberSafe project. <https://www.deped.gov.ph/2018/11/10/deped-partners-launch-becybersafe-project/>
12. Britannica. (2022). Britannica. Retrieved from Britannica: <https://www.britannica.com/topic/cybercrime>
13. Brush, K., Resencrance, L., & Cobb, M. (n.d.). TechTarget Security. Retrieved from TechTarget Network : <https://www.techtarget.com/searchsecurity/definition/cybercrime>
14. Brush, K., Rosencrance, L., & Cobb, M. (n.d.). Cybercrime. Retrieved from TechTarget Security: <https://www.techtarget.com/searchsecurity/definition/cybercrime>
15. Celes. (2023). Personal Excellence. Retrieved from Personal Excellence: <https://personalexcellence.co/blog/why-set-goals/>
16. Cherry, K. (2022). Piaget's 4 Stages of Cognitive Development Explained. Retrieved from Very Well Mind : <https://www.verywellmind.com/piagets-stages-of-cognitive-development-2795457>
17. Cioni, G., & Sgandurra, G. (2013). Normal psychomotor development. Retrieved from PubMed.gov: <https://pubmed.ncbi.nlm.nih.gov/23622146/>
18. City Division of Dasmariñas (2023). #BeCyberSafe. <https://depeddasma.edu.ph/becybersafe-project/>
19. Collins. (n.d.). Collins. Retrieved from Cobuild Collocation: <https://www.collinsdictionary.com/dictionary/english/attain-an-objective>
20. Cybersecurity Ventures (2020). Cybercrime To Cost The World \$10.5 Trillion Annually By 2025: Retrieved from <https://cybersecurityventures.com/cybercrime-damages-6-trillion-by-2021/>
21. De La Salle University. (2020.). Retrieved from De La Salle University: <https://www.dlsu.edu.ph/asallians-reach/>

Magazines, Manuals, Newspapers, Journals

1. Go, M., Goblin, J. R., Velos, S., & Bate, G. (2020). Filipino Teachers' Compartmentalization Ability, Emotional Intelligence, and Teaching Performance.
2. Hay, C., Meldrum, R., & Mann, K. (2010). Traditional bullying, cyberbullying, and deviance: A general strain theory approach. *Journal of Contemporary Criminal Justice*, 130-147.
3. Hinduja, S. (2012). General strain, self-control and music piracy. *International Journal of Cybercriminology*, 951-967.
4. Huey, L., & Ferguson, L. (2022). Cyberpolicing in Canada: A Scoping Review. *Sociology Publications*, 12-13.
5. Jamian, L. S., Ibadallah, B. X., & Fook, C. Y. (2013). A Conceptual Framework: The Influence of School Culture Types and Personality Traits on Psychological Empowerment amongst Secondary School Teachers in Malaysia. *Asian Journal of University Education*, 20.
6. Larsson, S., Svensson, M., & Kaminski, M. (2012). Online piracy, anonymity, and social. *Convergence: An International Journal of Research into New Media Technologies*, 95-114.
7. Li, J. (2021). Cybercrime In The Philippines: A Case Study Of National Security. *Turkish Journal of Computer and Mathematics Education*, 4228.
8. Larsson, S., Svensson, M., & Kaminski, M. (2012). Online piracy, anonymity, and social. *Convergence: An International Journal of Research into New Media Technologies*, 95-114.
9. Latif, S. (2021). PositivePsychology.com. Retrieved from PositivePsychology.com: <https://positivepsychology.com/cognitive-development/>
10. Li, J. (2021). Cybercrime In The Philippines: A Case Study Of National Security. *Turkish Journal of Computer and Mathematics Education*, 4228.
11. Merton, R. (1968). *Social Theory and Social Structure*. Free Press.
12. Nayak, S., & Jaswinder. (2022). Privacy invasion – a thriving issue in cyber crimes. *International journal for innovative research in multidisciplinary field*, 1.

ONLINE SOURCES

1. Active Learning, Inc. (2023). Project management training Philippines. Retrieved from Active Learning, Inc.: <https://activelearning.ph/learning-path/project-management-training-philippines/>



22. Department of Education. (2012.). *Guidelines on the allocation, delivery, and distribution of instructional materials (ims) to support the k to 12 curriculum*. Retrieved from Department of Education:
<https://www.deped.gov.ph/2012/02/03/do-13-s-2012-guidelines-on-the-allocation-delivery-and-distribution-of-instructional-materials-ims-to-support-the-k-to-12-curriculum/>
23. DepEd. (2018). Department of Education. Retrieved from Department of Education:
<https://www.deped.gov.ph/alternative-learning-system/resources/downloads/becybersafe/>
24. DepEd. (n.d.). Department of Education. Retrieved from Department of Education: <https://www.deped.gov.ph/about-deped/vision-mission-core-values-and-mandate/>
25. DepEd (2018). DepEd, partners launch #BeCyberSafe project. <https://www.deped.gov.ph/2018/11/10/deped-partners-launch-becybersafe-project/>
26. Philippine National Police (2022). *Online seller using stolen identity arrested for cybercrime case*. Mandaluyong City, Philippines: Philippine AntiCyber Group.