

Assessing Awareness and Preventive Practices Against Online Scams Among Senior High School Students

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Abstract— This study assessed the level of awareness and preventive practices against online scams among 311 senior high school students from a private school in Lamitan City during the first semester of School Year 2024-2025, selected using Slovin's formula, stratified random sampling, and simple random sampling. Using a 4-point likert survey questionnaire, the results revealed that the overall awareness of students regarding online scams is slightly aware (mean = 2.60), with greater recognition of common scams such as social media fraud and identity theft, but less familiarity with technical aspects like phishing and suspicious URLs. Preventive practices were generally practiced "sometimes" (mean = 2.47), indicating moderate but inconsistent application of online safety behaviors. There was a significant positive correlation ($r = 0.652$, $p < 0.05$) found between awareness and preventive practices, suggesting that higher awareness is associated with more frequent engagement in protective behaviors. These findings underscored the need for necessary educational programs so that the understanding of the students will be enhanced especially regarding complex scam tactics and also to promote consistent preventive actions, thereby fostering safer online experiences for youth.

Keywords— Online Scams, Awareness, Preventive Practices, Senior High School Students, Digital Literacy, Cybersecurity.

I. INTRODUCTION

Technology has significantly transformed how people communicate, learn, and conduct transactions. This transformation has been largely driven by the widespread availability of the internet, now almost very accessible across the globe. Students, in particular, rely heavily on digital tools for educational purposes such as research, collaboration, and other learning activities. However, while these advancements have greatly benefited learners, they have also created opportunities for malicious actors to exploit unsuspecting users.

The digital revolution has led to a noticeable increase in online scams that threaten the privacy, security, and well-being of internet users. These scams often target vulnerable individuals by taking advantage of their lack of awareness and trust, resulting in consequences such as financial loss, identity theft, and emotional distress. Senior high school students—who are considered digital natives due to their active use of social media, online shopping, and other internet platforms—are particularly at risk.

There are numerous studies that underscored the growing threat of cybercrime and its implications. For example, in Malaysia, Jais et al. (2024) concluded that the rise in

cybercrime was largely due to the insufficient knowledge and awareness of the public regarding safe online practices. The study emphasized the need for improved education, legal reforms, and public awareness campaigns to combat online scams. Similarly, Cross (2015) observed that despite increasing awareness of online fraud, victims were often blamed and perceived as gullible or greedy. This culture of victim-blaming, sometimes even expressed humorously, discouraged reporting and hindered recovery, indicating a need to reshape public perceptions.

Coluccia et al. (2020) highlighted that victims of online romance scams often suffer from both financial loss and emotional betrayal, a dual trauma exacerbated by shame and silence. They stressed the importance of recognizing psychological vulnerabilities—such as impulsiveness and romantic idealization—in crafting preventive and intervention strategies. Whitty (2015) further explained that online romance scams typically followed a manipulative five-stage process that emotionally traps victims, making it essential to understand this pattern to prevent harm and support recovery.

Williams, Beardmore, and Joinson (2017) noted a gap in understanding why some individuals were more susceptible to online scams, proposing a holistic theoretical framework that considers personality traits, situational context, and persuasive tactics. Their model provided a basis for more targeted and effective prevention strategies. Meanwhile, Balakrishnan, Ahmed, and Basheer (2025), using the Personal, Environmental, and Behavioral (PEB) framework guided by Social Cognitive Theory, found that overconfidence and social influence increased susceptibility, especially among women. These insights supported the need for gender-sensitive digital literacy programs that encourage critical thinking and online vigilance.

Yeo (2023) found that demographic factors—including age, gender, ethnicity, and education—significantly affect one's vulnerability to scams. High agreeableness and marital status were also associated with increased susceptibility. Zhang et al. (2025) discovered that while age, education, and social support reduce victimization risk, traits like impulsiveness, a high tendency to trust, and past negative experiences increase it. These findings underscored the complex psychological and social dynamics involved in online fraud victimization.

In light of these concerns, it is important to assess how students protect themselves against online threats as there is a

growing awareness of the importance of digital safety. This study seeks to examine the level of awareness and preventive practices among Senior High School students regarding online scams. Specifically, it aims to determine how effectively students identify online scams and the extent to which they implement preventive practices. The results of this research are expected to inform the development of educational initiatives and institutional policies that promote safer and more responsible internet use among young learners.

Statement of the Problem

This study aimed to assess the awareness and preventive practices against online scams among Senior High School students during the 1st semester of academic year 2024–2025. Specifically, it sought to answer the following questions:

1. What is the level of awareness of Senior High School students regarding online scams?
2. What are the preventive practices adopted by Senior High School students to avoid online scams?
3. Is there a significant relationship between the students' awareness of online scams and their preventive practices?
4. Based on the findings, what recommendations can be made to improve awareness and preventive behaviors against online scams among the students?

Conceptual Framework

This study is grounded in the assumption that awareness of online scams influences the preventive practices of senior high school students. Awareness referred to the students' knowledge and understanding of the various forms, signs, and consequences of online scams. It included their familiarity with common scam tactics such as phishing, fake sellers, and identity theft, as well as their ability to recognize suspicious links, messages, and websites. This variable is the independent variable of the study that serves as the presumed cause for their decision-making and behavioral responses to potential online threats.

Preventive practices, on the other hand, referred to the actions or safety measures taken by students to avoid falling victim to online scams. These included practices such as avoiding suspicious links, securing personal information, verifying online sources, reporting suspicious accounts, and regularly updating passwords. In this framework, preventive practices are viewed as the dependent variable of the study since it refers to the behavioral outcome caused by the level of awareness of students in online scams.

The relationship between these two variables is hypothesized to be positively correlated—meaning that as awareness of online scams increases, students are more likely to engage in effective preventive practices. This assumption is based on the idea that informed individuals are better equipped to recognize risks and take appropriate actions to protect themselves. Hence, this framework supports the objective of this study.



Figure 1. Conceptual framework of the study

II. METHODOLOGY

Research Design

This study employed a descriptive-correlational research design to assess the level of awareness and preventive practices against online scams among senior high school students in a private school in Lamitan City. The descriptive aspect aimed to determine the extent of awareness and the frequency of their preventive practices, while the correlational component examined the relationship between these two variables. A survey questionnaire served as the main data-gathering instrument, and a total of 311 respondents were selected using Slovin's formula, stratified random sampling, and simple random sampling. The collected data were analyzed using mean scores and standard deviation for descriptive interpretation while Pearson's correlation coefficient was used to determine the significance and strength of the relationship between awareness and preventive practices.

Research Instrument

The research instrument used in this study was a structured questionnaire designed to assess the awareness and preventive practices of Senior High School students regarding online scams. The questionnaire consisted of two main parts: the first part measured awareness through statements related to the types, signs, and consequences of online scams, while the second part evaluated the frequency of students' preventive behaviors when using the internet. Respondents rated each item using a 4-point Likert scale ranging from 1 (Never/Not aware) to 4 (Always/Strongly aware). The instrument was validated by experts in information technology, education and research methodology to ensure content validity and was pilot-tested with a small group of students to confirm its reliability before full administration.

Data Gathering Procedure

The data for this study were collected using a self-administered questionnaire distributed to the selected Senior High School students of a private school in Lamitan City. After securing permission from the school administration, the researcher coordinated with the respective class advisers to schedule data collection sessions. The respondents were informed about the purpose of the study, assured of the confidentiality of their responses, and instructed on how to answer the questionnaire honestly and accurately. The completed questionnaires were then collected, checked for completeness, and prepared for data analysis. The entire data gathering process was conducted during the first semester of the 2024–2025 academic year.

Data Analysis

The collected data were analyzed using descriptive and inferential statistical methods. Descriptive statistics, including mean and standard deviation, were used to determine the levels of awareness and preventive practices among Senior High School students. The interpretations of mean scores followed a predetermined scale to categorize awareness and practice levels. To examine the relationship between

awareness and preventive practices, Pearson’s correlation coefficient was computed. All statistical analyses were performed using statistical software such as Jamovi and JASP to ensure accuracy and reliability of the results, and findings were interpreted in the context of existing literature on online scam prevention.

III. RESULTS OF THE STUDY

Table 1: Level of Awareness on Online Scams

No	Statement	Mean	Standard Deviation	Interpretation
1	I am aware that online scams can happen through social media platforms.	2.95	0.72	Aware
2	I can identify a suspicious email or message requesting personal information.	2.50	0.84	Slightly Aware
3	I am aware of fake online sellers or shops on social media/e-commerce sites.	2.70	0.75	Aware
4	I know that scammers may use online games or mobile apps to trick users.	2.45	0.82	Slightly Aware
5	I am familiar with the term "phishing" and how it is used in online scams.	2.35	0.90	Slightly Aware
6	I know that giving out personal details online can lead to identity theft.	2.90	0.68	Aware
7	I understand that scammers may pretend to be from banks or government agencies.	2.55	0.77	Aware
8	I am aware of investment scams promising "easy money" online.	2.20	0.92	Slightly Aware
9	I know that scam websites may look real but have fake or suspicious URLs.	2.10	0.95	Slightly Aware
10	I know that scammers can hack accounts through free Wi-Fi or weak passwords.	2.75	0.70	Aware
Overall		2.60	0.81	Slightly Aware

Interpretation Guide: 1.00–1.75 → Not Aware 1.76–2.50 → Slightly Aware 2.51–3.25 → Aware 3.26–4.00 → Strongly Aware

Level of Awareness of SHS Students in Online Scams

The data from Table 1 indicated that the overall awareness of online scams among senior high school students is slightly aware, with an overall mean of 2.60. Students tend to be more familiar with common and easily recognizable scam methods such as social media scams and identity theft. However, their awareness decreases when it comes to more technical or less visible aspects, like recognizing phishing and suspicious URLs. The moderate standard deviations suggested varied awareness levels among students, possibly influenced by differences in digital exposure and education. These findings

highlighted the need for focused educational interventions to strengthen their understanding of the more sophisticated techniques used by scammers.

Table 2. Level of Preventive Practices Against Online Scams

No.	Statement	Mean	Standard Deviation	Interpretation
1	I avoid clicking on suspicious links or pop-up ads.	2.40	0.75	Sometimes
2	I do not share my passwords with others.	3.25	0.59	Often
3	I verify online sellers or shops before buying.	2.35	0.78	Sometimes
4	I log out from websites or apps after using them.	2.60	0.81	Often
5	I avoid giving personal information on unfamiliar websites.	2.45	0.70	Sometimes
6	I report or block suspicious messages or accounts online.	2.50	0.85	Sometimes
7	I regularly update my passwords.	2.25	0.92	Sometimes
8	I double-check the website URL before entering sensitive information.	2.40	0.79	Sometimes
9	I attend seminars or discussions about internet safety when available.	2.10	0.94	Sometimes
10	I ask adults or teachers when I'm unsure about an online activity.	2.45	0.87	Sometimes
Overall		2.47	0.79	Sometimes

Interpretation Guide: 1.00–1.75 → Never 1.76–2.50 → Sometimes 2.51–3.25 → Often 3.26–4.00 → Always

Level of Preventive Practices Against Online Scams

Table 2 indicated that the overall level of preventive practices against online scams among senior high school students is at a “Sometimes” level, with an overall mean of 2.47. While students generally avoid sharing passwords and log out of websites regularly, they tend to less consistently avoid suspicious links, verify sellers, and double-check URLs before providing sensitive information. This showed a moderate application of preventive measures, highlighting the need for more focused awareness campaigns and practical training to strengthen their consistency in practicing online safety behaviors.

Correlation Between Awareness and Preventive Practices on Online Scams

The Pearson correlation coefficient of $r = 0.652$ with a p-value of <0.001 showed a significant positive correlation between senior high school students' awareness of online scams and their preventive practices. This meant that students who are more aware of the different tactics and risks associated with online scams tend to engage more frequently in behaviors that prevent victimization. The moderate to strong strength of this correlation highlighted awareness as a key driver in adopting safer online habits. Consequently, this supported the importance of enhancing digital literacy and

awareness programs to encourage consistent and effective preventive actions among students.

Table 3. Correlation Between Awareness and Preventive Practices on Online Scams

Variables	Mean	Standard Deviation	r-value	p-value	Interpretation
Awareness of Online Scams	2.60	0.76	0.652	<0.001	Significant positive correlation
Preventive Practices Against Scams	2.47	0.79			

Note: Significance level set at $p < 0.05$

IV. DISCUSSION OF RESULTS

The results revealed that senior high school students have a slightly aware level of knowledge about online scams (mean = 2.60), with better understanding of common scams like social media fraud and identity theft but lower awareness of more technical threats such as phishing and suspicious URLs. Their preventive practices are practiced only sometimes (mean = 2.47), showing inconsistency in key behaviors like avoiding suspicious links and verifying sellers, though they are more consistent in basic measures like not sharing passwords. The significant positive correlation ($r = 0.652, p < 0.001$) between awareness and preventive practices suggests that increasing their knowledge of online scams can meaningfully improve their adoption of safer online behaviors. These findings underscored the need for targeted digital literacy programs that enhance both awareness and practical prevention to better protect students from online scams.

V. OTHER RECOMMENDATIONS

Based on the findings, it is recommended that the Senior High School Department of a private school in Lamitan City integrate online scam awareness and digital safety into the curriculum through subjects like Media and Information Literacy. Regular seminars, workshops, and campaigns should be conducted to reinforce the students understanding and encourage responsible online behavior. Additionally, peer-led initiatives and digital safety clubs may help sustain awareness among learners. The school should also establish accessible reporting mechanisms and strengthen guidance support for

students who may encounter online threats. Lastly, involving parents in promoting safe internet practices at home and conducting further research on this topic are essential steps to ensure a holistic and sustained approach to preventing online scams.

VI. CONCLUSIONS

The study concluded that senior high school students exhibited only a slight awareness of online scams and practice preventive measures inconsistently. Although they recognized common scam tactics, their understanding of more sophisticated scams remains limited, which reflected in their moderate engagement in preventive behaviors. The significant positive correlation between awareness and preventive practices highlighted the important role that knowledge plays in fostering safer online habits. Therefore, enhancing the digital literacy and awareness of the students through comprehensive educational programs is essential to improve their ability to identify and avoid online scams effectively.

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