

INTERPLAY BETWEEN DIGITAL CITIZENSHIP SKILLS AND TEACHING STYLES OF PUBLIC ELEMENTARY SCHOOL TEACHERS

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¹*Johnnefer C. Cinense, ²Carlo F. Vadil, DPA

¹Department Education, Quezon District, SDO Nueva Vizcaya, Philippines

²Nueva Vizcaya State University, Bambang, Nueva Vizcaya

*Corresponding Author email: drvadil888@yahoo.com

ABSTRACT

This quantitative, descriptive-correlational study explored the relationship between digital citizenship skills and teaching styles among 105 public elementary school teachers in Quezon District, Nueva Vizcaya, during the 2023- 2024 academic year. Teachers perceived digital citizenship skills—digital access, communication, literacy, etiquette, health and wellness, and security—were assessed alongside their preferred teaching styles: expert, formal authority, personal model, facilitator, and delegator. Data collection used a validated instrument, and statistical analysis provided insights into the correlations between these variables. Overall, teachers rated their digital citizenship skills as very good, with a grand mean of 3.25. High scores were noted in digital access (3.48), literacy (3.47), and communication (3.45), while health and wellness (3.00) and security (2.63) scored lower. Preferred teaching styles included personal model (3.66) and facilitator (3.67), emphasizing personalized and collaborative methods. Correlation analysis showed a strong positive correlation ($r = 0.715$) between digital citizenship skills and the facilitator style, suggesting that a collaborative approach enhances digital citizenship. Findings informed a management intervention program to enhance digital citizenship skills and teaching styles in Quezon District.

Keywords: Digital citizenship skills, teaching styles

Introduction

In the post-pandemic era, the importance of digital citizenship skills among elementary school teachers globally has significantly heightened. The pandemic accelerated the integration of technology into education, making it an essential tool for both teaching and learning. Elementary school teachers are now not only educators but also digital guides, responsible for imparting critical skills to their students.

These skills also enhance critical thinking and evaluation, helping students discern credible sources, analyze online content critically, and understand the consequences of their online actions. Additionally, they address cybersecurity and online safety, teaching students to protect personal information and stay safe online.

In the Philippine context, elementary teachers face challenges integrating digital citizenship skills due to resource constraints, limited access to technology, and inadequate infrastructure. Developing age- appropriate content that aligns with the curriculum and providing comprehensive teacher training are significant hurdles. Ensuring equitable learning opportunities across different socioeconomic backgrounds and encouraging parental involvement in digital citizenship education are also challenging.

In the Department of Education-Quezon District in Nueva Vizcaya, public elementary school teachers encounter significant obstacles, including limited access to technology, insufficient teaching materials, and inadequate training. Maintaining student engagement in digital citizenship topics and balancing traditional content with these skills is challenging. Continuous adaptation to evolving technology and addressing cybersecurity concerns without causing fear are crucial.

In the post-pandemic era, varied teaching styles have become essential in shaping education. Flexibility in teaching methods is crucial to meet students' evolving needs. Teachers must employ various styles, including expert, formal authority, personal model, facilitator, and delegator, to engage diverse learners effectively. This adaptability ensures education remains engaging and effective, emphasizing the development of digital citizenship skills for responsible digital navigation.

In the Philippine context, adaptable teaching methods are crucial for catering to the diverse cultural and socioeconomic backgrounds of students. Utilizing a mix of teaching styles fosters an inclusive, dynamic learning environment, ensuring effective engagement for students with different learning preferences and abilities.

The public elementary school teachers in Quezon District, Nueva Vizcaya, face a spectrum of concerns and challenges in implementing effective teaching styles. Resource limitations often pose a significant hurdle in diversifying teaching methodologies. The lack of access to updated teaching materials, technological resources, and adequate training impedes their ability to adopt innovative and varied teaching approaches. This often results in a reliance on traditional teaching methods that may not always cater to the diverse learning needs of students.

Moreover, the cultural and socioeconomic diversity within the district adds complexity to the challenge. Adapting teaching styles to meet the needs of students from varying backgrounds and with different learning preferences demands a considerable amount of effort and tailored approaches.

Additionally, the transition to digital education has posed substantial challenges for teachers in the district. Integrating technology into their teaching styles requires not only access to resources but also the expertise to effectively utilize these tools. Balancing the incorporation of digital tools while ensuring accessibility and equity for all students becomes a significant concern in this context. Another notable challenge involves classroom management. With potentially larger class sizes and a variety of learning abilities within a single classroom, maintaining a balanced and interactive teaching environment can be demanding. This requires teachers to tailor their

teaching styles to ensure engagement and inclusion for all students, which can be a daunting task in such diverse classrooms.

Moreover, the need for ongoing professional development to enhance teaching skills and explore new methodologies is a concern. Limited opportunities for continuing education or professional training hinder the teachers' capacity to adapt and innovate in their teaching practices. These challenges highlight the multifaceted nature of teaching in Quezon District, Nueva Vizcaya. As educators strive to address these concerns, it is crucial to have ongoing support, access to resources, and tailored professional development opportunities to foster a more diverse and effective teaching approach.

The one-peso question is- can digital citizenship skills of public elementary school teachers correlate with their teaching styles or vice versa?

It is the assumption of this current investigation that the correlation between digital citizenship skills of public elementary school teachers and their teaching styles presents a research gap needed to be addressed. Digital citizenship skills encompass various proficiencies required to navigate the digital landscape responsibly. In contrast, teaching styles encapsulate the diverse methodologies teachers use to impart knowledge and engage with their students. There is a considerable debate on whether these two areas interconnect or influence each other which the current study would like to prove.

Methodology

Research Design

This investigation into digital citizenship skills and teaching styles primarily utilized quantitative research methodologies to comprehensively address the research queries outlined in the initial chapter. Quantitative

Research involves using computational, statistical, and mathematical tools to measure and establish the prevalence of specific issues within a given population (Gay et al., 2009). The study employed a descriptive- correlational method, using a structured questionnaire supplemented with open-ended questions as the principal data-gathering instrument. This method was chosen to describe specific phenomena and collect factual information with analytical interpretation (Creswell, 2012). The researcher asserts that the descriptive-correlational research method is invaluable for assessing both the digital citizenship skills and teaching styles of the participants. This approach provided a comprehensive understanding of the relationship between these variables and their prevalence within the study population.

Research Locale

This study was conducted among public elementary schools in Quezon District, SDO Nueva Vizcaya, Philippines during academic 2023-2024.

Research Participants

The respondents of this study were the 105 public elementary teachers representing 72.41 percent from a total of 145 public elementary school teachers of Quezon District. This sample size was determined employing Slovin Formula.

Research Instruments

This study made use of the Digital Citizenship Skills Questionnaire by Vadil and Tallungan (2023), and Grasha-Riechmann Teaching-Styles Checklist (1996).

Data Gathering Procedure

Upon commencement of the research study, the researcher sought authorization from the Schools Division Superintendent of Nueva Vizcaya through a recommendation letter from the Dean of the College of Teacher Education, ensuring compliance with necessary protocols. Once official permission was secured, the researcher liaised with the district supervisor of Quezon District to ensure a harmonized and organized administration of the research instruments, expediting the collection of questionnaires. Prior to the administration, the respondents were informed about the study's nature, objectives, and significance for the organization. To ensure the reliability and validity of the results, the researcher encouraged the respondents to provide honest and open responses to the questionnaires. After collecting the respondents' answers, the data were tallied and tabulated, then subjected to statistical treatment for interpretation purposes to address the specific research questions posed in the first chapter of this study, ensuring the credibility and accuracy of the findings.

Ethical Consideration

In conducting the research on the interplay between digital citizenship skills and teaching styles among public elementary school teachers in Nueva Vizcaya, Philippines, several ethical considerations were addressed. Informed consent was obtained from all participants, ensuring they understood the study's purpose, procedures, risks, and benefits. Participation was voluntary, with the option to withdraw at any time. Confidentiality and anonymity were maintained by using codes for participant identification and securing data storage. Privacy was respected during data collection, and potential risks were minimized to avoid harm. Cultural sensitivity and respect for participants' dignity were upheld throughout the research process, adhering to ethical guidelines and obtaining necessary approvals.

Results and Discussion

The following are the significant findings of this research investigation:

Problem1. What is the perceived level of digital citizenship skills of the public elementary school teachers in Quezon District along the dimension of digital access, digital communication, digital literacy, digital etiquette, digital health and wellness, and digital security?

Table 1 provides valuable insights into the respondents' perception of their digital citizenship skills, showcasing a positive assessment. The grand mean of 3.25 indicate that the respondents perceived their level of digital citizenship skills as very good.

Table 1

Mean and Qualitative Description of the Respondents' Perception of their Digital Citizenship Skills

Digital Citizenship Skills	Mean	Qualitative Description
Digital Access	3.48	Very Good
Digital Communication	3.45	Very Good
Digital Literacy	3.47	Very Good
Digital Etiquette	3.44	Very Good
Digital Health and Wellness	3.00	Very Good
Digital Security	2.63	Very Good

The evaluations provided by respondents shed light on various dimensions of digital citizenship skills, offering valuable insights into their perceptions. Remarkably, digital access received the highest rating, averaging 3.48, indicating its perceived importance among participants. Following closely behind is digital literacy, with a mean rating of 3.47, suggesting a strong emphasis on the ability to navigate and understand digital tools and resources?

Additionally, digital communication garnered considerable attention, evidenced by its mean rating of 3.45, indicating the significance placed on effective online interaction. Moreover, digital etiquette and its mean rating of 3.44 underscore the importance of proper behavior and conduct in digital spaces.

However, it is noteworthy that digital health and wellness received a slightly lower mean rating of 3.00, suggesting a potential area for improvement in promoting well-being and balance in the digital world. Similarly, digital security garnered a mean rating of 2.63, indicating a perceived lower level of proficiency or awareness in safeguarding digital information and assets.

These findings provide valuable insights into the strengths and areas for growth in digital citizenship skills among the respondents, guiding future efforts to enhance digital literacy and promote responsible digital behavior.

Problem2. What are the respondents perceive level of teaching styles along the dimensions of expert, formal authority, personal model, facilitator, and delegator styles?

The results revealed in Table 2 shed light on the prevalent teaching styles as perceived and employed by the teacher-respondents in this study. Notably, there exists a strong inclination among educators towards the consistent use of personal model and facilitator styles, as indicated by their

Respective scores of 3.66 and 3.67. This suggests a pedagogical preference for hands-on, personalized approaches and collaborative learning experiences.

Table 3

Mean and Qualitative Description of the Respondents' Perception of their Teaching Styles

Teaching Styles	Mean	Qualitative Description
Expert Style	3.16	Often Utilized in Teaching
Formal Authority Style	3.42	Often Utilized in Teaching
Personal Model Style	3.66	Always Utilized in Teaching
Facilitator Style	3.67	Always Utilized in Teaching
Delegator Style	3.00	Often Utilized in Teaching

In contrast, the expert style received a moderately lower score of 3.16, while the formal authority style scored 3.42, implying a more balanced integration of expertise and authority with participatory and personal methods. The delegator style, with a score of 3.00, appears to be utilized less frequently, signaling a tendency among teachers to maintain a more hands-on role in guiding and facilitating the learning process. These findings underscore the dynamic nature of teaching practices, with educators employing a diverse range of strategies tailored to the specific context and needs of their students. As such, the results imply potential areas for professional development, encouraging educators to enhance their versatility in adopting different styles to accommodate diverse learning preferences. Furthermore, the results offer a foundation for exploring innovative teaching methods that integrate multiple styles, fostering a more comprehensive and engaging learning experience for students.

Problem3. Is there a significant correlation between the perceived digital citizenship skills and teaching styles of the respondents?

A discernible pattern emerges regarding the correlation between the perceived digital citizenship skills of the respondents and various teaching styles. A notably high positive correlation is evident between perceived digital citizenship skills and the facilitator style of teaching, highlighted by a computed r-value of 0.715. This strong correlation indicates a substantial association: as teachers adopt a facilitator style, there is a pronounced increase in the perceived digital citizenship skills among the respondents. Moreover, there are moderate positive correlations identified along formal authority teaching styles ($r=0.517$) and personal model teaching styles ($r=0.608$). These correlations indicate a moderate, yet meaningful, relationship between these teaching styles and the perceived digital citizenship skills of the respondents. The moderate positive correlation with formal authority teaching styles suggests a connection between a structured, authority-based approach and digital citizenship skills. Similarly, the correlation with personal model teaching styles implies that educators who consistently embody a personal model approach contribute positively to the perceived digital citizenship skills of their students. On the other hand, there are low positive correlations observed along expert styles of teaching ($r=0.463$) and delegator style of teaching ($r=0.396$). These correlations, while less pronounced, still indicate a positive relationship between these teaching styles and the perceived digital citizenship skills of the respondents. This suggests that both the expertise-focused teaching approach and the delegation-oriented teaching approach have a somewhat modest impact on perceived digital citizenship skills. Crucially, all these correlations surpass the critical r- value of 0.192 at a 0.05 level of confidence, underscoring their statistical significance. The subsequent pages

Will delve into a detailed discussion of each of these results, offering salient insights into the relationship between specific teaching styles and the perceived digital citizenship skills among the respondents.

Table 3

Correlation Coefficient Results between the Perceived Digital Citizenship Skills of the Respondents and Their Teaching Styles

Digital Citizenship Skillsversus Teaching Styles	Computed r-value	Remarks
Expert	0.463 (low positive correlation)	Significant
Formal Authority	0.517 (moderate positive correlation)	Significant
Personal Model	0.608 (moderate positive correlation)	Significant
Facilitator	0.715 (high positive correlation)	Significant
Delegator	0.396 (low positive correlation)	Significant
Degrees of Freedom: 103	Critical r-value: 0.192	Level of Significance: 0.05

Problem4. Based on the significant findings of the study, what management intervention can be developed to enhance or sustain the digital citizenship skills and teaching styles of the respondents?

The noteworthy findings of the study have laid the foundation for the creation of a management intervention program. This program takes the form of a comprehensive Training Design for Teachers, aiming to enhance various aspects and dimensions of their digital citizenship skills and teaching styles. The insights gleaned from the study

serve as a guide to tailor the training, ensuring a targeted and effective approach towards improving educators' proficiency in both digital citizenship and diverse teaching methodologies.

Conclusions

Based on the significant findings of the study, the following conclusions were obtained:

1. The respondents perceived to have a “very good” level of digital citizenship skills.
2. The respondents always utilized personal model and facilitator teaching styles; and often utilized formal authority, expert, and delegator styles of teaching.
3. There is a very significant correlations between the respondents’ perceived digital citizenship Skills and their teaching styles.
4. A training design was prepared by the researcher purposely to enhance or sustain their digital citizenships skills and teaching styles

Recommendations

In the light of the foregoing significant findings and conclusions in this study, the following recommendations are offered:

1. While respondents’ express confidence in their digital citizenship skills, focus on bolstering digital health and wellness, and digital security is crucial. Implement targeted training programs and resources to address identified gaps in these areas. By enhancing awareness and proficiency in digital security and promoting digital well-being, individuals can navigate online environments more safely and responsibly. This approach ensures a well-rounded digital citizenship skill set and promotes a positive and secure digital experience for all.
2. Encourage a diversified teaching approach by incorporating a variety of teaching styles beyond personal and facilitator styles. While maintaining the strengths of formal authority, expert, and delegator styles, introducing other methods can enhance engagement and adaptability. Promoting a mix of teaching styles ensures a more dynamic and effective learning environment, catering to diverse student needs and optimizing educational outcomes.
3. Recognize and leverage the correlation between respondents perceived digital citizenship skills and teaching styles. Tailor professional development programs to align teaching styles with fostering digital citizenship competencies. By integrating digital citizenship principles into pedagogical approaches, educators can effectively model responsible digital behavior while nurturing students' digital skills, thereby fostering a more comprehensive and impactful learning experience.
4. Execute the training program, derived from key research findings, in Quezon District across four Saturdays. Collaborate with the Provincial Local Government of Nueva Vizcaya to streamline budgetary considerations. This strategic coordination ensures efficient resource utilization and maximizes the impact of the training, aligning with local needs and optimizing the dissemination of valuable insights for educators in the region.
5. Conduct a comprehensive quantitative and qualitative research study on digital citizenship skills and teaching styles in different districts within the Division of Nueva Vizcaya. Utilize the same research instrument to cross-validate and enhance data credibility. This approach ensures a broader understanding of the subject matter, validates findings, and explores potential correlations with other research constructs, contributing to a more objective and clear comprehension of digital education dynamics.
6. Future researchers in educational administration and management are urged to delve deeply into the subject using triangulation and immersion methods. Explore constructs with a significant impact on the variables studied here. This approach enhances the richness of data, providing a clearer understanding and contributing to the advancement of knowledge in the field of educational administration and management.

Contributions of Authors

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Conflict of Interests

There is no conflict of interest in this research investigation

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