Digital Competence: Its Influence on the Academic Self-Concept of the Students

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ABSTRACT: The study aims to determine the relationship between digital competence and academic self-concept of students in public elementary schools, and the domains of digital competence that influence academic self-concept of students in Maragusan District, Davao De Oro, Philippines, using quantitative non-experimental, descriptive-correlational research design. Results showed a high level of Digital Competence in terms of search, find, access (SFA); develop, apply, modify (DAM); communicate, collaborate, share (CCS); store, manage, delete (SMD); evaluate (EV); and protect (PR). Also, a very high level of academic self-concept of students in terms of academic competence and academic effort. Moreover, findings show that there was a significant relationship between the digital competence and academic self-concept of students in public elementary schools. Likewise, all indicators of digital competence manifested significant relationship with the academic self-concept of students. Further, the result of the regression analysis showed that digital competence influenced the levels of academic self-concept of students. Additionally, results revealed that three indicators namely: search, find access; store, manage, delete; and protect displayed significant influence on academic self-concept of students. Findings of the study could be an important baseline for planning and crafting policies and activities that will maintain or even improve the high level of digital competence and academic self-concept of students with their domains to boost learning outcomes.

KEYWORDS: education, academic self-concept of students, digital competence, public schools. descriptive-correlational research, Philippines.

I. INTRODUCTION

The Problem and Its Background : Low academic self-concept of students may lead to various challenges for learners, affecting overall academic performance and well-being. Low self-concept learners are less motivated, more stressed during studying, and less involved in academic activities. The disengagement may lead to less engagement, less effort, and less willingness to cope with academic pressure, further supporting underachievement Such issues are corrected by increasing learners' self-concept, which is at the core of fostering learners' academic performance and emotional well-being (Camacho-Morles, et al., 2021). In the global setting, a study was conducted by Hatlevik et al., (2018) in Norway which found that students with greater digital competence were likely to have a more positive academic self-concept, as they found themselves better equipped for succeeding academically because of their correct use of digital resources. Similarly, a study of Mehrvarz et al. (2021) found out that self-efficacy, which encompasses digital competence, is a critical dimension that influences students' academic self-concept. When students master their digital competencies, there is an expectation that they will have higher academic self-efficacy, thus giving a positive feedback in terms of overall self-concept that they have of academics.

Furthermore, in Angeles City, Philippines a study was conducted by Dimla et al. (2024) which aimed to correlate the digital competence of the students and their academic performance. The academic performance and each area of their digital competence were described in the study. The findings revealed that there was no significant relationship between the digital competence and the academic performance of the students. Recent studies regarding the relationship between digital competence and academic self-concept have been receiving lots of attention nowadays, as people are interested in knowing if digital skills can influence students' views about their academic skills or not. A solid sense of digital competence will bolster the confidence of the student in his or her academic abilities, thus potentially improving the academic self-concept. in the school where the researcher is teaching, it has been observed that majority of the learners are using electronic gadgets such as cellphones and computers which are their way of getting information for their studies demonstrating that many of them are already digital literate. However, the researcher has not come across a study that examines how learners' digital competence influences their academic self-concept in the local setting. In this context, the researcher became interested in determining whether digital competence influences academic self-concept of the Grade 6 learners of Maragusan

West District. Understanding the factors affecting the academic self-concept of the learners in the public elementary schools will help examining if the digital competence influence the academic self-concept of the grade six learners.

Review of Related Literature and Studies : An academic review literature is meant to present contemporaneous and relevant scholar sources that support research finding. To enable sufficient background for the study, a range of relevant information, issues, concerns, and opinions of different authors are presented. To provide a comprehensive framework for evaluation, careful information and opinions from authoritative people are included in this study.

Digital Competence. The independent variable of this study is the learners' digital competence. The present education system is now focusing on the students' digital competence. Digital skills are emerging as a new competence, mostly needed because of growing necessities in both academic and future employability. According to studies, students having a higher degree of digital competence can solve problems related to academics and engage more in it, thus providing better learning outcomes (Zhao et al., 2021). Digital competence not only entails the need to be familiar with a raft of technical skills but also equips the learner to critically assess, interact appropriately using digital tools, and keep himself safe while navigating the digital environment (Mills et al., 2023).

Various findings highlight the significance of promoting digital competence among students in learning perspectives and realizations of challenges on the jobs front. Despite these innovations, many challenges still exist, most prominently in making it possible for fewer opportunities to be accorded effectively to develop skills for the under-represented groups of students (Zhao et al., 2021). The more education systems are engraved with technology, the more critical equitable access to digital resources becomes.Recently, digital competence has been recognized in the Philippines as a potential capacity leading toward embracing changing demands within modern education. Research findings indicate that while most students in the Philippines are already familiar with using digital tools, enormous gaps are still evident in terms of their actual usage for academic work. However, Espinosa et al. (2023) acknowledge that despite students' much time spent on social media and mobile applications, their critical thinking skills, digital content creation, and problem-solving skills within digital settings are still being improved. Notwithstanding this, the digital divide in the rural setting prevents fair and balanced digital literacy among students (Galaraga et al., 2022). Thus, building up of digital competencies would mainly help children to succeed in the new knowledge-based economy of the 21st century.

Recent studies have revealed that the digital competencies of Filipino learners are only now starting to emerge and differ for each kind of competency. For example, in their senior high, safety in the digital environment and scores in content processing tend to be higher because they already navigated the internet adeptly and learned how to safeguard themselves against online threats. Compared to this, the creation of digital content such as infographics and multimedia is at a level of competence that is between what is demonstrated by the students (Tei-Narh & Nantwi, 2022). In accordance with another study, while others demonstrate minimum competence in digital content assessment, students' competency levels are typically between "beginning" and "emerging" (Fajardo, 2023). The findings thus reflect the need for more targeted intervention in learning to improve the digital competence of Filipino learners, particularly in high-order digital competence such as content creation and critical digital media analysis (Tei-Narh & Nantwi, 2022).Some research has pointed out the requirement of digital competencies in students, especially at higher education. Digital competencies encompass a variety of competencies that include appropriate use of digital technology, critical scrutiny of information accessed online, and responsible deployment of digital tools. Developing such competencies is important to support students' success in a more digitized environment of learning and work. In support to this, Cabero-Almenara et al., 2023 conducted a study on the digital competence of higher education students. The showed that there is a gap between self-perceived and real competence levels due to the tendency of overestimation among them regarding their skills in terms of digital competence. It, therefore, calls for more accurate assessments and targeted interventions to enhance the digital competence of students.

Additionally, a study, conducted by Cabezas-González et al., (2023) was on digital competence in students at universities in Spain. Its findings indicate that while university students have developed at least some very basic digital competences, there still exist many important gaps concerning contents creation or problems solving skills on digital media, for instance. Moreover, three main factors were further taken into account in the study that examines undergraduate students' digital competence (DC): their attitude toward ICT, their knowledge of ICT resources, and their usage of ICT resources.

According to statistical analyses, students' DC was quite low. The results confirming that students' attitudes about ICT have an impact on how they use ICT resources, and that knowledge of ICT resources is a completely intermediate element in this relationship (Pham Tra & Dau Thi Kim, 2024). Some authors urge the incorporation of holistic training in the curricula of universities to bridge this gap. Additionally, Brabazon (2021) reinforces the argument more in support of critical digital literacy, arguing that technical competencies must be followed by the development of students' critical ability to analyze digital content and its socio-cultural meaning in digital media. In this sense, digital competence becomes a fundamental part of an all-around process in raising an informed and responsible digital citizenship. Cepa-Rodríguez and Murgiondo (2024) assert that in order to ensure a top-notch educational system that meets the demands of the twenty-first century, digital competence (DC) has emerged as a crucial component for aspiring educators. Because of this, many studies have attempted to assess the DC of college students pursuing degrees in education, but relatively few have concentrated on the variations based on the academic year or the technique employed. According to the findings, students graduate with a basic-intermediate level of DC, with "Digital Citizenship" and "Innovation" being their strongest areas. Nevertheless, the duties carried out to support this level are simple. Additionally, the data show that students' DC increases as they advance in their degree program and that the online approach appears to be more successful in fostering this specific ability.

Using the DIGCOMP-PED instrument, which is based on the DIGCOMP framework, a study examines the relationship between Chilean university students' access time to digital technologies and their development of digital competencies. Even if the study was carried out in 2021 and 2022, and the follow-up analysis was finished in 2024, access by itself does not ensure that advanced abilities in all competencies will be acquired. Thus, to prepare students for the challenges of the digital world, the study highlights the complexity of the relationship between access to technology and the development of digital competencies. It must be highlighted the significance of combining access with high-quality education and structured guidance in digital literacy (Rioseco-Pais et al., 2024). Addtionally López-Nuñez et al. (2024) pointed that periodic tests are necessary since university students' digital skills are heavily reliant on their teachers' expertise. In this technological setting, tools such as DigComp and the TPACK model are offered. Using widely known technologies, a systematic review that adheres to PRISMA guidelines seeks to assess digital capabilities. Recognizing DigCompEdu's dominance and seeing the variation produced in Asia underscores the inadequate capacity to convey learners' self-perceived competencies.

Furthermore, social media use and research on digital competencies are two important aspects of contemporary culture. This article's goal is to illustrate the connection between Polish students' digital competencies and their usage of social media. The study's primary findings include a shift in students' preferences for using particular social networking sites and an increased evaluation of students' digital competencies when using social media. According to the findings, students are more careful when evaluating their own digital competencies and use Tik Tok, X (previously Twitter), and Instagram more frequently (Chomiak-Orsa, et al., 2024). The first domain of digital competence is Search, Find, and Access (SFA). A dimension of the assessment should include how well a student perform SFA, an ability to locate and find information using digital tools that is crucial today for learning in a digital learning environment. Research findings have cited SFA as a core skill especially for those environments where students are given an overwhelming number of resources to be found independently by themselves (Johnson et al., 2016).

This skill is claimed to develop along with other abilities including communication, teamwork and content creation in the test models of digital literacy (Perifanou & Economides, 2019). According to new studies, most of the students display foundational skills in SFA. However, structured training programs are still needed to boost such skills, particularly when it comes to the critical judgment and application of the information accessed while searching (Sarva et al., 2023).The second domain of digital competence is Develop, Apply and Modify (DAM). The model DAM indicates students' digital competence, especially for educational purposes, since it centers its main stress on the development process of skills, from the basic level of use of digital tools, in its application; then it goes further and more complexly to modify and generate new solutions. More important than just mastering technology is digital competence, which involves critical thinking, creativity, and problem-solving skills within digital environments. They can create an event and set notifications using a digital calendar and able to collaborate with people using various smart devices, platforms, and digital tools and upload and share content they have developed on various social media (Zukriyani & Azizan, 2023).Therefore, DAM facilitates the measurement of how students can evolve from basically being a passive user into an active digital creator of content. This is one of the most important elements in 21st-century education. The study recently supported the adoption of a holistic scale for digital competence, outlining areas like content creation,

Ethical engagement in cyber space, and the ability to change digital tools, all in conformity with the DAM framework (Tzafilkou et al., 2022).The third domain of digital competence is Communicate, Collaborate, Share (CCS). One of the very crucial components of digital competence, especially for modern digital environments' students. According to some research studies, it can be depicted that CCS is one of the most necessities for effective digital literacy, mainly because effective collaboration and sharing through all means of digital resources in both academic and professional domains are required by students. Subsequently, the learners can upload and share content they have developed on various social media and take a photo or a video and save it in various formats using various smart devices and digital recording tools (Ali et al., 2021).

Some studies have demonstrated that students who possess higher levels of digital competence are more likely to do effective collaboration and sharing through online resources. This would include digital communication techniques such as problem-solving and teamwork as well as knowledge sharing. Better academic performance and learning outcomes have been linked with digital collaboration in higher education, a reason why curricula that combine the training of digital skills are so important. Such competencies will benefit learning both in class and entering a labor force heavily driven by the process of digitalization (Mena-Guacas et al.,2023).The fourth domain of digital competence is Store, Manage and Delete (SMD). which is highly important in digital competence frameworks because it reflects the ability of students to handle digital data coherently. This indicator encompasses those skills required for storing files efficiently, managing data so that they can be accessible once needed, and deleting unwanted or obsolete files in a secure manner (Tzafilkou et al., 2022). The development of competences in this respect is necessary as a way of guiding students to influence digital environments responsibly and effectively. In the context of the European Union's Dig Comp framework, SMD competencies are more broadly aligned with competences in information and data literacy includes, the ability of a person to find, download and store digital resources. Such competences are becoming increasingly important in educational contexts so that students can carry through in-depth interaction with the high amount of information they meet while receiving digitalized information, thereby their holistic digital literacy (Misheva, 2021).

The fifth domain of digital competence is Evaluate (EV). It follows that evaluating students' digital competence now becomes an important indicator in determining how well they can effectively navigate and utilize various digital tools and resources. Recently, literature added that assessment frameworks concerning evaluation skills give insights about the student's capacity to critically assess and apply information digitally. Good evaluation is not only the use of digital means but also considering what constitutes dependable and relevant digital content-a reflection of deeper levels of digital literacy (Hsu, 2023). In this connection, support can be drawn from ongoing efforts to implement evaluation criteria for assessments of digital competence designed to enhance students' critical thinking and decision-making skills (Ng, 2024).The sixth domain digital competence is Protect (PR). Growing attention is now being paid to the protection of digital privacy and security as an integral part of the students' competencies, which can be termed as the ability of a student to protect his or her private data and tackle online threats. Current studies depict that students need to acquire effective skills for protection to control their digital identities and avoid cyber security risks (Lee & Hancock, 2023). Accordingly, integrating protection strategies into assessments for digital competence ensures the application of effective digital tools as well as knowing how one can maintain one's security and privacy in an online environment. This is further supported through studies which advocate for all-inclusive digital literacy programs with protections as the core component (Ilomäki, 2023). The learners can copy and save the screenshot from various smart devices and evaluate whether some information is fake, scam, or fraud and regularly change their passwords and settings of their smart devices and Internet accounts (Ismail & Abdullah, 2022).

Academic Self-Concept. Academic self-concept denotes students' perception of themselves regarding their ability and capability in the academic realm. There is much interaction between academic self-concept and educational outcomes. Recent research has recently established a strong link between academic self-concept and excellent academic performance as well as maintaining the same (Wu et al., 2021). It indicates that students with a strong academic self-concept are also likely to engage in learning activities, set higher academic goals, and even be resilient towards academic challenges (Usán et al., 2020). It may further influence not only their motivation but also actual performance and academic trajectory.The recent studies further spur the necessity of interventions targeted toward improving students' academic self-concept to be helpful for educational outcomes. Though, strong programs targeted toward building up learners' confidence and self-efficacy. It was argued by Simonsmeier et al., (2020) that strong programs will lead to great performance upgrades in school and life altogether. Such findings argue for the integration of strategies designed to boost self-concept into educational practice to promote a supporting learning environment within the belief process in nurturing self-belief

And academics. The level of learners' academic self-concept among Filipino were high (Adriano et al., 2022). Low self-concept is further linked to the negative emotional impacts of increased stress and increased susceptibility to the emergence of anxiety disorders, further lowering academic performance (Chiu et al., 2021).The transition from primary to secondary education is one where the academic self-concept of students often dips drastically. According to Postigo et al., 2022), the loss is individualistic and dependent on backgrounds and schooling pathways, thereby calling for targeted intervention at the transition stage. Academic self-concept is a student's self-concept of his or her ability to succeed in school. There is growing interest in this concept, because it is an important factor in determining educational outcomes. For example, Xie and Kuo (2024) big-fish–little-pond effect illustrates how comparative standing within a group influences academic self-concept and motivation to achieve.Alternatively, low ASC is associated with withdrawal and reduced motivation, thus learning environments supporting positive self-concepts are required (Black & Allen, 2018). Academic self-concept promoting interventions have been found to be effective in supporting academic achievement. In Skinner's (2023) identity-based model of motivation, the higher the congruence between academic goals and students' self-concept, the more motivated and successful the students will be.

The reciprocal effects model (REM) and the internal/external frame of reference (I/E) models of academic self-concept creation are combined in the reciprocal internal/external frame of reference (RI/E). The REM assumes that academic self-concept and accomplishment have reciprocal relationships. In both the verbal and mathematical areas, the I/E paradigm presupposes contrast effects between self-concept and achievement. Within domains, there were unidirectional relationships between prior accomplishments and subsequent intrinsic values, but reciprocal relationships between achievement and academic self-concept. Former math proficiency and subsequent self-concepts and intrinsic values in German and English, as well as between former German and English proficiency and later self-concept and intrinsic value in math, were significantly correlated negatively across domains (Arens & Niepel, 2023).

Few studies concurrently examine the gender-moderated effects of academic self-concept, despite the fact that it is essential for advancing students' education. The purpose of this study was to investigate how academic self-concept affects performance, motivation, achievement, and self-efficacy in a gender-moderated manner. According to the findings, academic self-concept improved performance, increased self-efficacy, improved motivation, and improved success. It should be mentioned that while gender differences may mitigate the effects of academic self-concept, relationships between it and other educational dimensions may be far more complex than anticipated (Wang & Yu, 2023).Additionally, the frequently mentioned link between academic success and self-concept has mostly been discovered in research on students from individualistic Western nations. Since students from non-Western nations are believed to primarily embrace collectivist cultural ideals and practices that are at odds with how students from individualist nations view and assess their academic functioning, this relationship may not be apparent among these students. The same overall association between academic achievement and self-concept that has been observed in Western countries was supported by a final review of 27 empirical articles involving student populations from various collectivist countries and across educational levels. Consequently, higher academic accomplishment was linked to the formation of a positive self-concept (Weva et al., 2024).

Since psychosocial elements have been shown to have an impact on students' academic performance, particularly at the university level, their integration in the teaching and learning processes has grown in importance. The findings showed that there was some gender-based disparities in every variable considered. Men excelled in emotional clarity and emotional mending, whereas women demonstrated greater levels of emotional attentiveness, academic self-concept, and performance. The results demonstrate how crucial it is to incorporate psychosocial elements into university training programs (Ubago-Jimenez et a., 2024).According to researchers Sabando-García et al. (2025), students' academic performance and emotional well-being are greatly influenced by their self-concept, which is a crucial aspect of psychological and educational development. Despite its significance, there are still gaps in the validation of assessment tools designed for learning environments. The AF-5's Cronbach's alpha of 0.854 indicated that it was highly reliable. There were gender differences, with men performing better in physical self-concept and women scoring higher in emotional self-concept. The instrument's use in measuring self-concept was validated by structural equation modeling, which verified the important factor loadings. Over the past few decades, there has been a growing emphasis on the significance of self-related variables in predicting academic accomplishment. Bivariate relationships between self-related characteristics and accomplishments have generally been documented. There has not been much research measuring the combined predictive power of more than two self-variables. Analyses of hierarchical linear regression were performed.

Biological sex, the control variable, was responsible for 8% of English grades and 2% of Chinese grades, but not for math grades. By include subject-specific self-concept ratings, the explained variation rose to 32% in English, 16% in mathematics, and 7% in Chinese. The differences that were considered did not rise with additional additions to the other four self-related scales. The conversation emphasizes how important subject-specific academic self-concepts are in predicting academic success related to a subject (Rost & Feng, 2024).The first indicator of academic self-concept is academic confidence. Academic confidence is, therefore, related to academic self-concept that indicates student's perception of their abilities in academic tasks. Much research has shown that students who possess high academic confidence identify themselves with more self-efficacious behaviors that have a direct and positive influence on their academic performance (Shin & Bolkan, 2021). It has been defined as belief that a student has regarding his or her ability to succeed in carrying out academic work. It was found recently to impact various elements of students' performance. Amerstorfer et al. (2021) demonstrate how students who feel more confident with respect to their Math skills are better able to take active parts in classroom discussions and will ask for assistance if necessary and, therefore, achieve a superior learning outcome. Similarly, Neroni et al. (2022) found a positive correlation between academic confidence and university students' good grades.

Teaching approaches and peer relations are some of the factors implicated in the development of academic confidence. Therefore, support from teaching practices may help support students' self-belief, (Bhowmick, 2023). Alternatively, constructive feedback or encouraging students to actively participate can facilitate an increase in students' academic confidence. Similarly Nurdiana et al. (2023) also pointed out that learning groups with peers about academic confidence and achievement; indeed, cooperative settings increase academic confidence. Additionally, interventions have been found to enhance academic confidence. For example, Fukazawa (2024) study found that goal setting and self-reflection workshops significantly impacted enhancing self-rated academic confidence. In support, Bakour (2024) also presented evidence that mentoring schemes in which less confident students were paired with academically high-achieving peers resulted in enhancement of self-belief and motivation. The academic self-concept is always observed by public elementary school grade six students. This implies that the learners constantly manifested that they can follow the lessons quickly and displayed optimism as they think they can go to college or university (Chew, & Cerbin, 2021).

Though beneficial, excessive academic confidence sometimes promotes complacency. As conformed by Hamilton (2022) cautioned that overly confident students overestimate the effort required to achieve academic performance, and this would yield decreased performance outcomes. Therefore, as concluded by Robb et al. (2023), it is crucial to accompany confidence with realistic self-assessment to achieve the best academic outcomes. Overall, academic confidence is among the most robust predictors of student performance, and instruction and peer interaction are most crucial to its establishment. To the extent possible confidence-building approaches are valuable, it remains most critical to keep a balance between confidence and honest self-assessment in an effort to ensure long-term academic success.This confidence is measured in tests that measure all or a portion of such factors as doing coursework, studying, and activity in class. It is evident that academic confidence creates a positive self-perception that, in turn, increases motivation and academic success. Consequently, studies have established that there is a discernible academic model of confidence based on grades and participation that reinforces the learner's overall organization of the academic self-concept, which, in turn, will result in improved educational attainment (Guo et al., 2022).

The purpose of the study of Santiago (2024) was to ascertain whether academic confidence is a predictor of university physical education students' engagement in physical activity (PA). The findings indicated that while PA participation was moderate, academic confidence was high. The findings also showed a strong correlation between PA participation and academic confidence. The findings showed that among university students studying physical education, academic confidence strongly predicts PA engagement. Research indicates that academic behavioral confidence (ABC), a collection of self-beliefs in study-focused activities, can be a useful predictor of university students' academic engagement and success (Lam & Taylor, 2025). Less is known about ABC's psychological or behavioral correlations, despite the fact that institutional and demographic differences are frequently documented. Gender ($\beta = 0.14$–0.25), age ($\beta = -0.16$–0.12), self-esteem ($\beta = 0.22$–0.46), peer pressure ($\beta = -0.15$–-0.17), and drug dependency ($\beta = -0.15$–-0.21) were all found to be consistent predictors across ABC components using hierarchical regression analysis. The results emphasize the significance of social networks and personal characteristics on academic self-efficacy. There are suggestions for keeping an eye on ABC and its contributors to conduct focused research and provide pastoral assistance. The second indicator of academic self-concept is academic effort. Academic effort is gradually being seen as a relevant indicator of academic self-concept-that is, students believe that they can accomplish academic tasks.

The research findings point out that students who portray higher levels of academic effort are likely to look at themselves more favorably than others; they could see difficulties as opportunities for development rather than threats. These attributes were strengthened as they were paying attention to the teachers during classes and studying hard for their tests. Also, produce quality output. Hence, some perceived that others are usually interested in their schoolwork. Further, they were performing well in their schoolwork and motivated to continue schooling (Tause, 2024). Lastly, they were willing to put more effort into their schoolwork (Abo-Khalil, 2024).

A recent study conducted by Yang et al. (2023), demonstrated how effort strongly mediates the relationship between self-concept and academic performance, showing that by having a belief in their competence, students will exert more effort towards attaining good results. It therefore indicates that to increase the success of the learner, it is important to build both self-concept and effort inside the educational setting. It has been defined as the time and energy students commit to their academic activities. In the last decade, research has concentrated on a number of factors influencing the students' academic effort and then the performance they are able to achieve. For instance, Guo et al. (2022) found that the students' perception of the learning environment is highly important for their engagement and levels of effort. The intrinsic motivation and the self-regulation skills are equally crucial predictors that point to how much effort a student really gives in his study (Cayubit, 2022). In this regard, researchers have used personality traits in exploring their influence on academic effort. For example, a new study by Rieger et al. (2022) suggests that sustained academic effort has a positive association with conscientiousness, as such effortful learning is centralized to more diligent and better organized students. Mammadov (2022) also found that openness to experience has a positive correlation with academic effort because students who are more curious and imaginative tend to delve into learning materials.

According to Wilder (2023), effort is also an exogenous factor because it can be ascribed to the socioeconomic status of a person or their parents. Sirin (2021) argument furnishes this claim by saying that most children from a higher socioeconomic status have more access to resources that increase the chances of better effort in academics. Gonzalez-DeHass and Willems (2020) have established that the activeness of a parent in their child's education positively influences effort and engagement in school. Interventions to enhance academic effort have been very effective. For instance, according to a study by Yeager et al. (2020), interventions that foster a growth mindset that favors the concept of changeable intelligence predict greater effort and improved academic performance. In the same way, research by Hulleman and Harackiewicz (2021) has established that relevance-based interventions, which align course content to students' everyday lives, enhance academic effort and motivation. As students' perceptions about the material change, they also adjust their study strategies to reflect these changes. This finding demonstrates that students' attitudes about returns on effort, which are crucial factors in their effort decisions, can be influenced by inexpensive information interventions (Ersoy, 2023).

Academic self-concept of the Filipino student has moved to become one of the facets that have gained much focus for research, given that such findings are explained through education and overall welfare. Findings from recent research reveal that academic self-concept in the case of Filipino students shifts based on the differences in levels, thereby explaining socio-economic status, education setting, and expectations culturally among others (Alinsunurin, 2021). Additionally, Karaman et al. (2021) determined through research that those students who belonged to more nurturing homes had increased academic self-concept, which related positively with academic performance and motivation. Such observations point towards the role contributed by teachers in determining settings conducive to more positive student self-concept, thus leading to improvements in education performance based on differing settings in the Philippines. It was found out by Adegbore and Ola-Alawode (2024) that there was a significant positive correlation between students' digital competence and their academic self-concept. Results have shown that the more competent the students are digitally, the higher their confidence levels in achieving academic success. This is because the integration of digital tools into learning spaces enhances the level of competence with which students utilize technology, thus enhancing the learning process for them and enabling them to perform tasks better while having access to diverse resources (Javier-Aliaga et al., 2024).

The study further developed how digital competencies positively impact the overall academic self-concept of students in a range of subjects, mainly in STEM and research-oriented fields. For example, students who were more advanced in coding, data analysis, or efficient use of digital libraries perceived themselves to be better learners than their peers who were not as digitally competent (Khampirat, 2021). For instance, in settings in which technology became a staple input in education and testing programs and their effects were enhanced. This study shows that, when embedded in educational systems, digital literacy can have a causal effect to improve

self-efficacy and general performance among students. The training in digital competence needs to be integrated into curricula to help students address the challenges that come with a modern education: developing their academic self-concept and preparing them for a technology-intensive world.

Theoretical Framework: This descriptive-correlational study was anchored in Social Cognitive Theory by Albert Bandura (1986). He explained that self-efficacy or individuals' belief in their capability to succeed situations strongly influences both academic performance and self-concept. Further, building digital competence leads to a positive academic self-concept from the digital sense of confidence students who feel confident with their digital skills. In other words they possess a high degree of self-efficacy to use digital tools. Because of their competence in using technology which enhances their belief in their ability to successfully complete academic tasks,leading to improved academic outcomes. It is in this premise that the researcher anchored this study that digital competence could change the way learners think, communicate and act. Whatever they see and hear will become part of their life. This study also conceptualized that when learners are digital competent, they become more informed of the things needed for their studies. They can connect more actively with their co-learners especially during activities.

Figure 1 presents the independent variable, the digital competence which is broken down into six domains namely: search, find, access (SFA); develop, apply, modify (DAM); communicate, collaborate, share (CCS); store, manage, delete (SMD); evaluate (EV); and protect (PR) (Tzafilkou et al., 2022). Meanwhile, the dependent variable of this study is the academic self-concept that contains two indicators, academic confidence; and academic effort (Matovu, 2019).
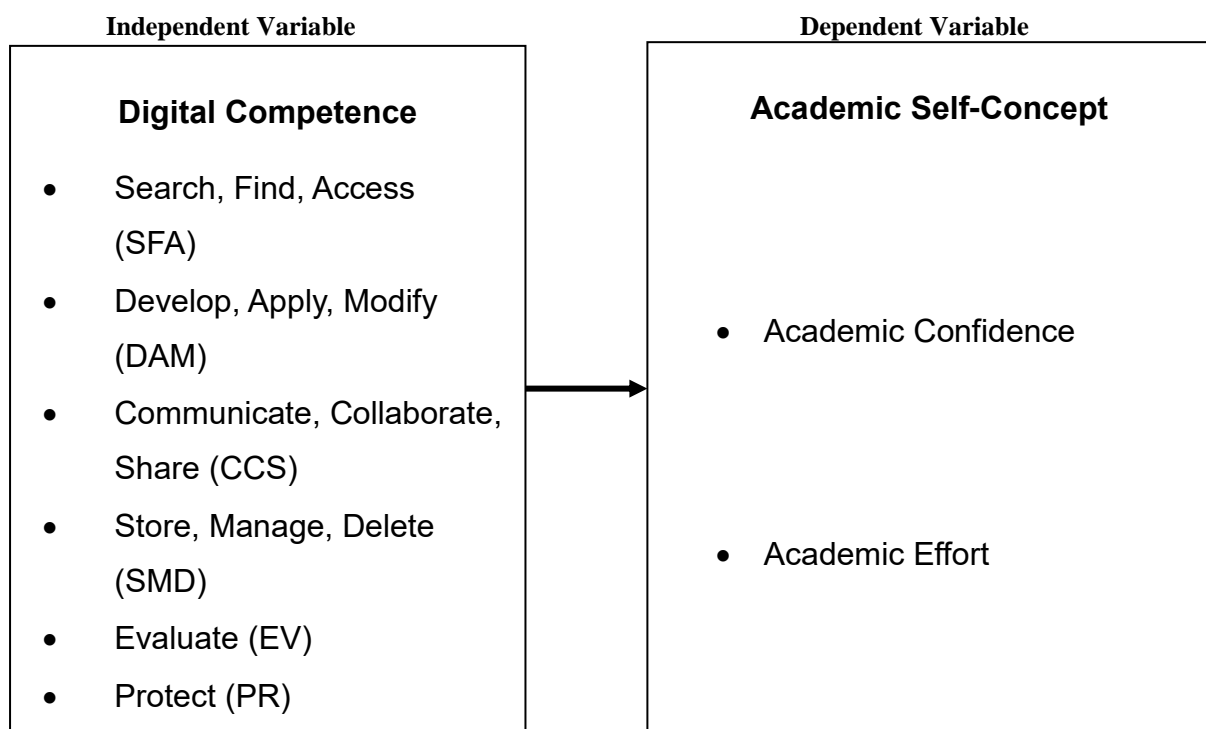
Independent Variable	Dependent Variable
Digital Competence • Search, Find, Access (SFA) • Develop, Apply, Modify (DAM) • Communicate, Collaborate, Share (CCS) • Store, Manage, Delete (SMD) • Evaluate (EV) • Protect (PR)	**Academic Self-Concept** • Academic Confidence • Academic Effort

Figure 1 Conceptual Framework of the Study

Statement of the Problem : The main purpose of this descriptive-correlational study was to determine the significant influence of digital competence on academic self-concept of the 257 Grade 6 learners from the 10 public elementary schools in Maragusan West District for school year 2024-2025. Specifically, it aimed to answer the following questions:

1. What is the level of digital competence of the learners in terms of:
- search, find, access (SFA),
- develop, apply, modify (DAM),
- communicate, collaborate, share (CCS),
- store, manage, delete (SMD),

- evaluate (EV), and
- protect (PR)?

2. What is the level academic self-concept of the learners in terms of:
- academic confidence, and
- academic effort?

3. Is there a significant relationship between digital competence of the learners and their academic self-concept?

4. Which of the domains of the digital competence of the learners that influence their academic self-concept learners?

Null Hypotheses
Based on the problem the following null hypotheses were formulated set at 0.05 level of significance:
HO_1 There is no significant relationship between the digital competence pf the learners and their academic self-concept.
HO_2 There is no domain in the digital competence of learnerss that significantly influence their academic self-concept?

Scope and Delimitations of the Study : This descriptive-correlational study focused on the digital competence and the academic self-concept of the 257 Grade 5 learners from the selected 10 public elementary schools in Maragusan West District for school year 2024-2025, Division of Davao de Oro. To gather the data, an adapted survey questionnaire was used.

Significance of the Study
The results of this study would be beneficial to the following individuals:
Learners. The results of this study would help the students to be more responsible on the use of technology. The results would further help them to use such competence for their education and that abusing the use of this skill would not bring positive impact on their academic confidence and effort.

Teachers. The results of this study would give the teachers an idea of guiding their students in the use of technology help them to develop their academic confidence and effort.

Parents. The results of this study would motivate the parents to supervise their children in the use of technology at home.

School Administrators. The results of this study would motivate the school administrator to help the teachers to understand how to integrate technology into their teaching and make use of the skills of the learners to be more motivated to be more active participants in the learning process.

Future researchers. The results of the study would be a good opportunity for the researchers to conduct similar study and to determine the positive and negative impacts of the use of technology on the attendance and academic pewrformance of the learners. Further, this study can be replicated with a larger group of students and more factors that affect the students' learning behavior.

Definition of Terms
For the clarity and better understanding of this study, the following terms were operationally defined:

Academic Confidence. It refers to a pupil's personal perception that he/she can follow the lessons quickly and do better than their friends in most subjects.

Academic Effort. It refers to a pupil's willingness to put in more effort in his/her schoolwork and focus on studies

Academic Self-Concept. It refers to the learners' self-evaluation of their own educational capacity and talents.

Communicate, Collaborate, Share (CCS). It refers to the learners' capability to collaborate with people using various smart devices, platforms, and digital tools.

Digital Competence. It refers to the learners' digital competence in terms of Search, Find, Access (SFA); Develop, Apply, Modify (DAM); Communicate, Collaborate, Share (CCS); Store, Manage, Delete (SMD); Evaluate (EV); and Protect (PR).

Develop, Apply, Modify (DAM). It refers to the learners' capability to create an event and set notifications using a digital calendar and convert content from one format to another format

Evaluate (EV). It refers to the learners' capability to evaluate an object and/or a smart device using appropriate quality criteria and evaluate whether a website is secure and trusted.

Protect (PR). It refers to the learners' capability to regularly change my passwords and settings of my smart devices and Internet accounts protect myself and others against identity theft, harassment, bulling, or slander.

Search, Find, Access (SFA). It refers to the learners' capability to search and find a specific object or similar objects using various search engines and data bases.

Store, Manage, Delete (SMD). It refers to the learners' capability to use various smart devices and digital recording tools and organize the files on my computer into a hierarchical folder structure
.

II.   METHODS

This chapter presents the research design, research locale, respondents of the study, research instrument, validation of the instrument, research procedure, statistical tools used in analyzing the data, and ethical considerations.

Research Design : In this study, the researcher used the quantitative descriptive-correlational research design employing correlational techniques and regression analysis. A non-experimental research design includes descriptive and correlation research. In addition, by using this method, the researcher has no control on the variables because they have already occurred or because it is not possible for these to be influenced. The researcher needs to consider possible alternative explanations, to gather legitimate answers to the adapted research questions, to determine the relationship of the variables which best influences corresponding theories, to jointly analyze several variables, and to present conclusions without making definitive causal statements. This includes published studies that were incorporated into the discussion to facilitate understanding (Creswell & Creswell 2017). The research design was chosen since it determined the level, relationship of learners' digital competence and academic self-concept of grade six in Maragusan West District, and the domains that best influence the latter.

Research Locale : This study was conducted in the Municipality of Maragusan, Davao de Oro Province. It is considered as a first class municipality and the farthest municipality of the Province. It is composed of 24 barangays. Its original name is San Mariano and the population is diverse of which the Mansaka tribe is the majority among other ethnic groups. It is known as "Little Baguio" because of its temperature. Its terrain is rugged and mountainous and gifted with beautiful green sceneries. Because of its cold climate different variety of plants abound the whole municipality and agriculture is the chief livelihood of the people. It is one of the major suppliers of fruits like bananas and vegetables within and outside of the province of Davao de Oro. The place has produced the sweetest banana ever and it is also known not only in the province but also in the region because of its very rare species of a flower which has the largest petals. The Mansaka people were the original settlers of the place before the arrival of the majority. Today these people occupy the highest population among the ethnic tribes whereas the Mandaya tribe ranks second.

The researcher chose 10 public elementary schools in Maragusan West District to wit: Bagong Silang Elementary School, Mabugnao Elementary School, Magcagong Elementary School, Mahayahay Elementary School, Maragusan Central Elementary School, Mauswagon Elementary School, New Katipunan Integrated School, New Panay Integrated School, Parasanon Integrated School, Saranga Elementary School. Bagong Silang Elementary School which ran by a school principal and 17 teachers; Mabugnao Elementary School that ruled by a teacher in charge and 5 teachers; Magcagong Elementary School which managed by a school principal and 13 teachers; Mahayahay Elementary School which overseen by a teacher in charge and 6 teachers.

Maragusan Central Elementary School which managed by a school principal II and 77 teachers; Mauswagon Elementary School which supervised by head teacher and 11 teachers; New Katipunan Integrated School administered by a school principal and 11 teachers; School New Panay Integrated School which directed by a teacher in charge and 14 teachers, Parasanon Integrated School which administered teacher in charge and 16 teachers and Saranga Elementary School ruled by teache i n charge and 10 teachers. Figure 2 on the next page is the map of Maragusan depicting the respondent schools.
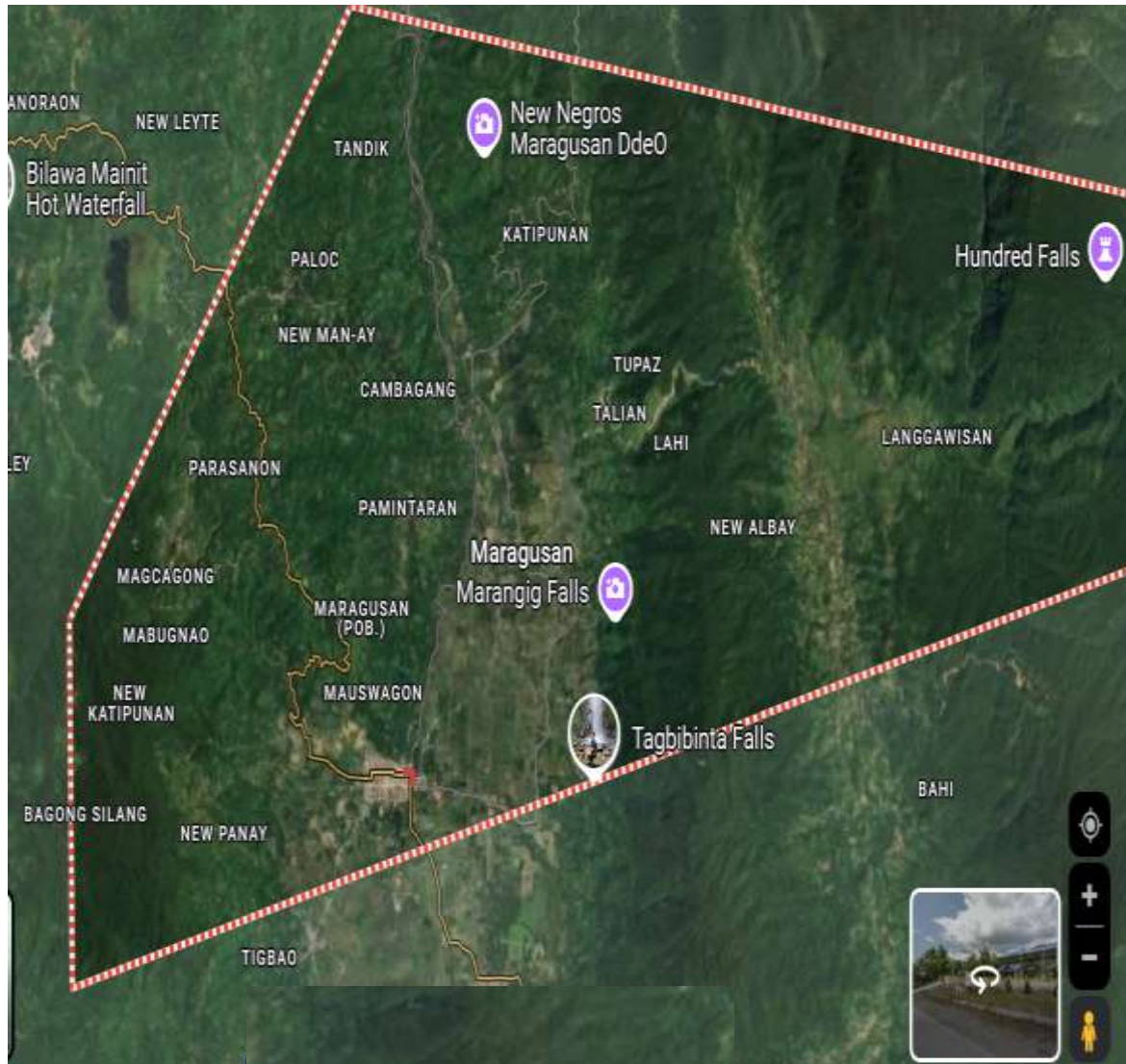

Figure 2 Location Map of the Respondent Schools

Respondents of the Study : The respondents of this study were the 257 public elementary school Grade 6 learners in Maragusan West District to wit: Bagong Silang Elementary School, Mabugnao Elementary School, Magcagong Elementary School, Mahayahay Elementary School, Maragusan Central Elementary School, Mauswagon Elementary School, Katipunan Integrated School, School New Panay Integrated School, Parasanon Integrated School, Saranga Elementary School. A simple random sampling technique will be used in the study. It utilized Raosoft to determine the number of respondents with a 95% level of confidence while allowing five percent margin of error.

Table 1
The Distribution of Respondents

School	Population of Grade VI	Respondent	Percentage to Whole
Bagong Silang Elementary School	100	33	13%
Mabugnao Elementary School	4	1	1%
Magcagong Elementary School	53	18	7%
Mahayahay Elementary School	13	4	2%
Maragusan Central Elementary School	436	146	57%
Parasanon Integrated School	41	14	5%
New Katipunan Elementary School	54	18	7%
New Panay Integrated School	17	6	2%
Parasanon Integrated School	30	10	4%
Saranga Elementary School	20	7	3%
Total	**768**	**257**	**100%**

Research Instrument : In the gathering of data, adapted questionnaires were used. All the questions were translated to the vernacular for clarity on the part of the respondents. The first was on the digital competence which was taken from work of Tzafilkou et al. (2022) which was broken down into six domains namely: Search, Find, Access (SFA); Develop, Apply, Modify (DAM); Communicate, Collaborate, Share (CCS); Store, Manage, Delete (SMD); Evaluate (EV); and Protect (PR). The survey questionnaire consisted of five items. To measure the level of digital competence, the following parameter limits were used:

Range of Means	Descriptive Level	Interpretation
3.50 – 4.00	Very High	This means that digital competence is always observed.
2.50 – 3.49	High	This means that digital competence is oftentimes observed.
1.50 – 2.49	Low	This means that digital competence is seldom observed.
1.00 – 1.49	Very Low	This means that digital competence is rarely or never observed.

On the other hand, the questionnaire for the academic self-concept of the learners were taken from the study of Matovu (2019). There were two indicators- academic confidence and academic effort. Each of these indicators consisted of nine item statements. To measure the academic self-concept, the following parameter limits were used:

Range of Means	Descriptive Level	Interpretation
3.50 – 4.00	Very High	This means that academic self-concept of students is always observed.
2.50 – 3.49	High	This means that academic self-concept of students is oftentimes observed.
1.50 – 2.49	Low	This means that academic self-concept of students is seldom observed.
1.00 – 1.49	Very Low	This means that the academic self-concept of students rarely or never observed.

The instruments that were used in this study came from published sources that underwent validation. Further, the modified questionnaires were pilot tested to the 20 learners who were not included in this study. In addition, the questionnaires were also validated by a panel of experts composed of external and internal validators.

Research Procedures : In the administration of this research study, the researcher secured first the ethics certification from the Ethics Review Committee of the Assumption College of Nabunturan. After having the ethics certification, an official letter from the dean of the graduate school was issued and together with this permission letter was the personal letter of the researcher and submitted to the office of the Schools Division Superintendent of Davao de Oro. After securing the approval, another letter was prepared for the 10 school principals of the respondent public elementary schools in Maragusan West District.

After the approval of the letters for the principals, the researcher immediately administered the survey questionnaire to the 257 Grade 6 learners. Prior to the answering of questionnaires, instructions were given to ensure honest, clear, and complete answer and the questionnaire served its purpose. Informed consent and absent forms were also given. The consolidated data were submitted to the statistician for appropriate statistical treatment. Lastly, the researcher tabulated the results of the computation and analyzed and interpreted the results based on the problems of the study.

Statistical Treatment of Data : The responses to the items in the research questionnaire were analyzed and interpreted using the appropriate statistical tool as follows.

Mean. This tool was used to determine the level of digital competence and academic self-concept of the learners.

Pearson r or Product Moment Correlation. This test was used to determine the significant relationship between digital competence and academic self-concept of the learners.

Multiple Linear Regression Analysis. This was used to find out the influence of the domain in the digital competence on academic self-concept of the learners.

Ethical Consideration : Ethical consideration presents the beliefs and concepts that should be maintained throughout the study. With this, the researcher ensured that the ethical standards are strictly followed throughout the study addressing the areas that follow (Bhashin, 2020),

Social Value. This research was done to determine the significant relationship between digital competence and academic self-concept of the Grade 6 learners in the 10 public elementary schools of Maragusan West District. The results would be shared with the institution and would be published in the online journal, so other related researchers can make use of it as a reference.

Informed Consent. The researcher distributed Informed Consent Forms (ICF) to the identified respondents. The researcher disclosed the essential information such as the name and affiliation of the researcher. It was also be emphasized that the participation of the respondents was purely voluntary, and they are free to withdraw

anytime they felt any discomfort. The purpose of the study was also be explained, along with the procedures that were carried out for the study.

Vulnerability of the Research Participants. The researcher explained the entire process that was conducted and was also emphasized that the participants had the freedom to opt out of the interview if they experienced any discomfort and it did not affect them in any aspect.

Risks, Benefits, and Safety. The researcher explained the benefits of the participant's participation in the study. The implementation of survey questionnaire was done during the most convenient time and place for the participants and any expenses incurred by them for the study were reimbursed by the researcher.

Privacy and Confidentiality of Information. The researcher made sure that the respondent's personal information, identity, and data gathered were kept confidential and secured to ensure that the Data Privacy Act of 2012 was being followed. The data collected and the files were transferred to a Google drive, which only the researcher can access. The data were destroyed after the conduct of the study.

Justice. The research participants were chosen based on the inclusion criteria: must be a Grade 6 learners studied in one of the 10 public elementary schools in Maragusan West District. They can be of any gender. While those in other grade levels were excluded as respondents. In any case that research respondents might incur their expenses during the conduct of the interview, the researcher reimbursed them.

Transparency. To address this aspect, the researcher disclosed the affiliations and the objective of the study.

III.   RESULTS
This chapter presents the results of the data collected. The results of the study are presented in accordance with the research questions outlined in chapter one.

Level of Digital Competence of the Learners : Table 2 below shows the level of digital competence of the learners. The overall mean score obtained on the learners' digital competence is 3.4 described as high. This means that learners' digital competence is generally oftentimes observed. Specifically, the mean ratings of the indicators of digital competence are divulged from highest to lowest as follows: protect (PT) achieved a mean rating of 3.7 or very high; store, manage, delete (SMD) obtained a mean rating of 3.6 describe as very

Table 2
Levels of Learners' Digital Competence

Indicator	Mean	Descriptive Equivalent
Search, Find Access (SFA)	3.5	Very High
Develop, Apply, Modify (DAM)	3.2	High
Communicate, Collaborate and Share (CCS)	3.2	High
Store, Manage, Delete (SMD)	3.6	Very High
Evaluate (EV)	3.3	High
Protect (PT)	3.7	Very High
Overall Mean	**3.4**	**High**

high; search, find access (SFA) garnered a mean rating of 3.5; evaluate (EV) got mean rating 0f 3.3 described as high and lastly, the develop, apply, modify (DAM) with communicate, collaborate and share (CCS) both accumulated a mean rating of 3.2 or *high*.

Search, Find, and Access (SFA). Presented in the table level of digital competence in terms of SFA. Table 3 shows the level of the first indicator, Search, Find Access (SFA). It got an overall mean of 3.5 or very high. Among items, the highest mean obtained in the statement "I can watch (read, listen, view) content in various formats on various smart devices" which is 3.9 Interpreted as very high. The lowest mean was obtained in the statement "I can navigate in the real world using the advanced features of a navigator" that garnered 3.2 or high.

Table 3
Search, Find Access (SFA)

INDICATOR	Mean Rating	Descriptive Interpretation
I can search for and find a specific object or similar objects using various search engines (e.g., Google, Yahoo, Bing) and databases, using appropriate keywords and advanced criteria and filters.	3.5	Very High
I can search for and find a specific person on various social networks using various techniques and filters.	3.5	Very High
I can search and find groups on a specific topic (e.g., hobby, profession, artist, science, historical event, travel destination) on various social media.	3.6	Very High
I can navigate in the real world using the advanced features of a navigator.	3.2	High
I can watch (read, listen, view) content in various formats on various smart devices.	3.9	Very High
Overall Mean	**3.5**	**Very High**

Develop, Apply, Modify (DAM). Table 4 showed the level of Develop, Apply, Modify (DAM). It exhibited an overall mean of 3.2 or high. This divulged from the highest mean obtained in the statement "I can create an event and set notifications using a digital calendar (e.g., Google Calendar, Apple Calendar, Microsoft Outlook Calendar)" which is 3.7 Interpreted as very high. The lowest mean was obtained in the statement "I can convert content from one format to another format" that got 2.8 or high.

Table 4
Develop, Apply, Modify (DAM)

INDICATOR	Mean Rating	Descriptive Interpretation
I can create an event and set notifications using a digital calendar (e.g., Google Calendar, Apple Calendar, Microsoft Outlook Calendar).	3.7	Very High
I can creatively design using various digital tools	3.4	High
I can create a document with text, diagrams, tables and reports	3.3	High
I can apply statistical techniques using appropriate software (e.g.MS Excel, Google Sheets).	2.9	High
I can convert content from one format to another format	2.8	High
Overall Mean	**3.2**	**High**

Communicate, Collaborate and Share (CCS). Table 5 showed the level of Communicate, Collaborate and Share (CCS). The result displayed an overall mean of 3.5 or very high. Among three indicators, it revealed from the highest mean obtained in the statement "I can collaborate with people using various smart devices, platforms, and digital tools" and "I can upload and share content I have developed on various social media"

which both garnered 3.6 mean or very high descriptive interpretation. The lowest mean is obtained in the statement "I can make presentations using various digital tools" that got 3.4 or high.

Table 5
Communicate, Collaborate and Share (CCS)

INDICATOR	Mean Rating	Descriptive Interpretation
I can collaborate with people using various smart devices, platforms, and digital tools	3.6	Very High
I can make presentations using various digital tools	3.4	High
I can upload and share content I have developed on various social media	3.6	Very High
Overall Mean	**3.5**	**Very High**

Store, Manage, and Delete (SMD). Shown in Table 6 is the result of the level of digital competence of the learners in terms of SMD. The result displayed an overall mean of 3.6 or very high. Among five indicators, it revealed from the highest mean obtained in the statement "I can take a photo or a video and save it in various formats (mp4, wmv, avi, qt, gif, jpg, etc.)

Table 6
Store, Manage, Delete (SMD)

INDICATOR	Mean Rating	Descriptive Interpretation
I can take a photo or a video and save it in various formats (mp4, wmv, avi, qt, gif, jpg, etc.) using various smart devices and digital recording tools.	3.8	Very High
I can download content and save it directly to the relevant folder	3.6	Very High
I can copy and save the screenshot from various smart devices	3.8	Very High
I can delete some of my connections/friends in various social networks.	3.5	Very High
I can organize the files on my computer into a hierarchical folder structure	3.4	Very High
Overall Mean	3.6	Very High

using various smart devices and digital recording tools" and "I can copy and save the screenshot from various smart devices" which both garnered a mean 3.8 or very high. The lowest mean was obtained in the statement "I can organize the files on my computer into a hierarchical folder structure" that got 3.4 or high.

Evaluate. Table 7 reflects the level of digital competence in terms of evaluate. Table 7 indicates the level of Evaluate (EV). The result shows an overall mean of 3.3 or high. Among five indications, it revealed that the highest mean obtained in the statement "I can evaluate whether some information is fake, scam, or fraud" which garnered a mean 3.8 or high. The lowest mean was obtained in the statement "I can evaluate whether an email is spam, adware, phishing, or fraud" that got 3.1 or high.

Table 7
Evaluate (EV)

INDICATOR	Mean Rating	Descriptive Interpretation
I can evaluate an object and/or a smart device using appropriate quality criteria	3.2	High
I can critique an object and/or a smart device on relevant social media.	3.4	High
I can evaluate whether some information is fake, scam, or fraud	3.5	Very High
I can evaluate whether a website is secure and trusted	3.4	High
I can identify the intellectual property rights (IPRs) of content that I have found on Internet.	3.4	High
I can evaluate whether an email is spam, adware, phishing, or fraud	3.1	High
Overall Mean	**3.3**	**High**

Protect. It is presented in Table 8 the level of digital competence of the learners in terms of protect. Table 8 indicated the level of Protect (PT). The result displayed an overall mean of 3.6 or very high. Between three pointers, it revealed the highest mean obtained in the statement "I can regularly change my passwords and settings of my smart devices and Internet accounts which earned a mean 3.8 or very high. The lowest mean was obtained in the two declarations "I can protect various smart devices and e-accounts using different passwords and frequently changing them" and "I can protect myself and others against identity theft, harassment, bullying, or slander" that both got 3.7 or high.

Table 8
Protect (PT)

INDICATOR	Mean Rating	Descriptive Interpretation
I can regularly change my passwords and settings of my smart devices and Internet accounts	3.8	Very High
I can protect various smart devices and e-accounts using different passwords and frequently changing them	3.7	Very High
I can protect myself and others against identity theft, harassment, bullying, or slander	3.7	Very High
Overall Mean	**3.7**	**Very High**

Levels of Academic Self Concept of the Learners

Academic self-concept of the learners. Table 9 shows the level of academic self-concept of the learners.

Shown in Table 9 is the level of learners' academic self-concept. The overall mean score gained on the academic self-concept is 3.7 described as very high with.

Table 9
Academic Self Concept of the Learners

Indicator	Mean	Descriptive Equivalent
Academic Competence	3.7	Very High
Academic Effort	3.7	Very High
Overall Mean	**3.7**	**Very High**

This means that the academic self-concept is always observed by public elementary school grade six students. Precisely, the mean ratings of the indicators of academic self-concept were disclosed two indicators gained a mean rating of 3.7 labelled as very high.

Academic competence. Presented in Table 10 is the level of the academic competence of the learners.

Table 10
Academic Competence

INDICATOR	Mean Rating	Descriptive Interpretation
I can follow the lessons quickly.	3.5	Very High
I can help my classmates with their homework if permitted.	3.3	High
Think I can go to college or university.	3.7	Very High
I am paying attention to the teachers during classes	3.9	Very High
I study hard for my tests.	3.8	Very High
Some are usually interested in my schoolwork.	3.8	Very High
I am willing to do my best to pass all the subjects.	3.1	High
I am good at most of my school subjects.	3.4	High
I can do better than my friends in most subjects.	2.7	High
Overall Mean	**3.7**	**Very High**

Table 10 indicated the level academic competence. The result displayed an overall mean of 3.7 or very high. Along with nine pointers, it revealed the highest mean obtained in the statement "I am paying attention to the teachers during classes" which earned a mean 3.9 or very high. Together with the other four very high level of pointer statements. The lowest mean was obtained in the assertion "I can do better than my friends in most subject that got 2.7 or high.

Academic effort. Table 11 reflects the level of the academic effort of the learners.

Table 11
Academic Effort

INDICATOR	Mean Rating	Descriptive Interpretation
I am focused on my studies.	3.8	Very High
I am working on tasks with the collaboration of my classmates.	3.8	Very High
I am performing well in my schoolwork.	3.9	Very High

I always remember all my learnings.	3.5	Very High
I am confident in answering my teacher's question.	3.5	Very High
I am motivated to continue schooling.	3.9	Very High
I am excited to listen to class discussions.	3.7	Very High
I Always do good in tests.	3.5	Very High
I am willing to put more effort into my schoolwork.	3.9	Very High
Overall Mean	**3.7**	**Very High**

Table 11 indicates the level of academic effort. The result presented an overall mean of 3.7 or very high. It further revealed all statements got scored very high descriptive interpretations, however in single capacity the highest mean obtained in the three statements as follows "I am performing well in my schoolwork;" "I am motivated to continue schooling;" and "I am willing to put more effort into my schoolwork" which earned a mean 3.9 or very high. The lowest mean was obtained in the three assertions to wit: "I always remember all my learnings;" "I am confident in answering my teacher's question" and "I Always do good in tests" that got a mean of 3.5 but still described as very high.

Relationship Between the Digital competence of the Learners and Their Academic Self-concept.

Table 12
Relationship Between Digital Competence
and Academic Self-Concept of Students

		Digital Competence	Academic Self-Concept of Students
Digital Competence	*Pearson's r*	—	0.606
	p-value	—	< .001
Academic Self-Concept of Students	*Pearson's r*	0.606	—
	p-value	< .001	—

Presented in Table 12 is the result of the test of the relationship between digital competence and academic self-concept of students. It garnered an overall r value of .606 and a *p* value less than 0.001. This means that there is a significant positive relationship between the digital competence of the learners and their academic self-concept.

Table 13 showed the overall result of the regression analysis to display weather the levels digital competence significantly influenced the level of academic self-concept of students. The findings displayed that digital competence statistically significant predictor of the on academic self-concept of students as to computed R square value of 0.416 and p value <0.001.

The Influence of the domains of Learners' Digital Competence on Academic Self-Concept

Table 13
The Influence of the domains of Learners' Digital Competence on Academic Self-Concept

Learners' Digital Competence	Academic Self-Concept				
	Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	*t*	Sig.
(Constant)	1.589	0.187		8.505	0.000
Search, Find Access (SFA)	0.151	0.056	0.188	2.703	0.007

Develop, Apply, Modify (DAM)	0.047	0.055	0.068	0.852	0.395
Communicate, Collaborate and Share (CCS)	0.012	0.052	0.019	0.237	0.813
Store, Manage, Delete (SMD)	0.124	0.059	0.170	2.100	0.037
Evaluate (EV)	0.010	0.063	0.013	0.154	0.878
Protect (PT)	0.246	0.047	0.357	5.293	0.000

The data showed that out of six domains of digital competence only three indicators manifested significant impact of academic self-concept of students, to wit: Search, Find Access (SFA), Store, Manage, Delete (SMD) and Protect (PT). Moreover, in single capacity the Protect (PT) was the strongest predictor of academic self-concept of students.

IV. DISCUSSION AND CONCLUSION

This chapter contained the discussion of findings, conclusion and recommendations.

Discussions

Level of Digital Competence. The overall mean score obtained for the digital competence is described as high. This means that the digital competence attributes are often observed. Hence, it was manifested through learners' ability to watch content in various formats on various smart devices. They can use a digital calendar to create events and set notifications, collaborate with others using various smart devices, platforms, and digital tools, and upload and share content they have developed on various social media. Subsequently, the learners can upload and share content they have developed on various social media and take a photo or a video and save it in various formats using various smart devices and digital recording tools. The learners can copy and save the screenshot from various smart devices and evaluate whether some information is fake, a scam, or fraud, and regularly change my passwords and settings of my smart devices and Internet accounts. The results are in consonance with the claim of Espinosa et al. (2023), stating that the learners had exposure to social media, mobile applications, and advanced digital content creation. The learners have the ability to access content in various formats on different smart devices (Julianingsih et al., 2021). They can create an event and set notifications using a digital calendar while working with others through various smart devices, platforms, and digital tools, enabling them to publish and share their material across several social media channels (Zukriyani & Azizan, 2023).

Accordingly, students can post and disseminate their created content across numerous social media platforms, as well as capture and preserve images or videos in multiple formats using a range of smart devices and digital recording tools (Ali et al., 2021). While regularly updating their passwords and settings for their smart devices and online accounts, the students can record and save screenshots from many smart devices and assess the accuracy of content, so determining whether it is false, fraudulent, or a scam (Ismail et al., 2022). However, contradicts the previous study made by Ballano, Mallari and Sebastian, (2022) with the statements that due to scarcity of infrastructures, the teachers' capability to transfer digital skills was hindered.

Level of Academic Self Concept of Students. The overall mean score gained on the academic self-concept is very high. This figure means that the academic self-concept of students' attributes is always displayed by public elementary school grade six students. This implies that the learners constantly manifested that they could follow the lessons quickly and displayed optimism as they thought they could go to college or university. These characteristics were strengthened as they were paying attention to the teachers during classes and studying hard for their tests. Additionally, they were producing high-quality work, which led some to perceive that their classmates were generally engaged in their schoolwork. Further, they were performing well in their schoolwork and motivated to continue studying. Lastly, they were willing to put more effort into their schoolwork. Filipino students were found to have a very high academic self-concept, which aligns with the findings of Adriano et al. (2023) and Cruz et al. (2022). This indicates that the students consistently demonstrated their ability to grasp the teachings quickly and exhibited optimism about their potential to attend college or university (Chew et al., 2021). These traits were enhanced by attentive engagement with teachers throughout lessons and diligent preparation for examinations. Furthermore, their production of high-quality work caused others to believe that their peers were predominantly invested in their academic responsibilities. Moreover, they excelled in their

academic pursuits and showed a strong motivation to persist in their studies (Tause, 2024). Ultimately, they were prepared to invest further effort into academic endeavors (Abo-Khalil, 2024).

Relationship Between Digital Competence and Academic Self Concept of Students. The result of the test of the relationship between digital competence and academic self-concept revealed that there is significant positive correlation between learners' digital competence and academic self-concept. This implies that if the learners' digital competence increases the level of academic self-concept of students also increases and vice versa. Therefore, the null hypothesis is rejected. This corroborated with the findings of Adegbore et al. (2024), indicating a positive correlation between students' digital competence and their academic self-concept of students. Results indicate that students with more digital competence exhibit increased confidence in attaining academic achievement. The incorporation of digital tools into educational environments improves students' proficiency in technology use, thereby augmenting their learning experience and facilitating superior task performance while providing access to a variety of resources (Javier-Aliaga et al., 2024).

Influence of Digital Competence on Academic Self-Concept of Students. The overall result of the regression analysis displayed levels of digital competence significantly influence the level of academic self-concept. The findings demonstrated that digital competence statistically significant predictor of the academic self-concept of the learners. Almost half of the variance of academic self-concept of learners can account to every unit increase in the digital competence. Subsequently, the data showed that out of six domains of digital competence only three indicators manifested significant impact on the academic self-concept of students, to wit: Search, Find Access (SFA), Store, Manage, Delete (SMD) and Protect (PT). Moreover, in single capacity the Protect (PT) was the strongest predictor of academic self-concept of students. This means that the null hypothesis was rejected.

This substantiated the study results of Hatlevik et al. (2018) who stressed out that students with greater digital competence were likely to have a more positive academic self-concept, as they found themselves better equipped for succeeding academically because of their correct use of digital resources. Similarly, a study of Mehrvarz et al. (2021) that found out that self-efficacy, which encompasses digital competence, is a critical dimension that influences students' academic self-concept. When students master their digital competencies, there is an expectation that they will have higher academic self-efficacy, thus giving a positive feedback effect in terms of overall self-concept that they have of academics.

Conclusion
Based on the results of the study, the researcher concluded that; The high level of digital competence of the Grade 6 learners mean they were exposed to technological tools, innovations and resources. Also, the very high level of academic self-concept among the learners signifies that the 10 respondent schools were on the right track in delivering the learning opportunities to the learners through maintaining or even improving the high-level learners' digital competence. Furthermore, building digital competence is related to positive academic self-concept of the learners. The digital competence of the learners led them feel confident with their digital skills, in other words possess a high degree of self-efficacy to use digital tools. This is because their competence in using technology enhances their belief in their ability to successfully complete academic tasks, which leads to improved academic outcomes. However, the overall influence of digital competence on academic self-concept covers only almost half of the total percentage which means that other factors affect their academic self-concept.

Recommendations : Based on the research outcomes, the researcher recommends that the Department of Education consider planning and crafting policies and activities that would clearly define the significance of digital competence. This may be done though strengthening of the digital literacy integration in the curriculum planning and allocating enough amount from the national budget for ICT materials, infrastructures and professional development training using edtech tools. School administrators may also use the results of this study as bases for school programs that would maintain or further enhance the digital competence and academic self-concept of the students. The school may sustain and enhance the digital competence through school-based teachers training on ICT tools utilization and initialize student ICT ambassadors' programs to train ICT capable leaders that would help their peers and teachers in maximizing digital literacy. Lastly, provide internet access to students to empower them to keep searching, innovating and creating.

Based on this research, the significance of learners' digital competence was established in the paradigm of education. Thus, parents are also encouraged to provide their children with the necessary technological gadgets

to be used by them in exploring and learning. Consequently, parents are encouraged also to keep their children at home guided in using gadgets and other technological tools such as personal computers and mobile phones.

For researcher, the results of this study may serve as a reference for further exploration. It is advisable to validate the results of this study with a wider range of respondents or settings. They may also investigate additional variables, methods, and tools to deepen the understanding of the underlying factors and processes related to learners' digital competence and academic self-concepts. This exploration may serve as a solid foundation for the formulation of educational policies and initiatives aimed at promoting parental engagement and enhancing academic self-concepts, ultimately improving student learning outcomes.

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