

The Impact of Social Media on Student's Self-Concept in Technical Education Institutions

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Abstract. Social media has become an integral part of students' daily lives, functioning not only as a medium for communication and entertainment but also as a platform for self-identity development. This study aims to examine the influence of social media usage on students' self-concept in technical education institutions, focusing on Politeknik Mersing, Johor (PMJ). Specifically, the study seeks to identify the level of social media usage and its relationship with dimensions of self-concept such as self-confidence, social competence, and perceptions of academic ability. A quantitative research design was employed, using a Likert-scale questionnaire distributed to 193 respondents from various programs and semesters. The collected data were analyzed through descriptive and inferential statistics to determine patterns and the strength of relationships between variables. The findings revealed a significant relationship between social media usage and students' self-concept. These results highlight the dual role of social media, which can positively or negatively shape students' personal and academic self-perceptions. The study provides valuable insights for institutions to better understand the implications of social media on students' character development and offers a basis for designing effective interventions to foster positive self-concept among students in technical education settings.

Keywords: Social Media, Self-Concept, Technical Education Institutions.

1. INTRODUCTION

The rapid development of information and communication technology has brought significant changes in the way individuals interact, particularly among students in higher education institutions. Social media platforms such as Facebook, Instagram, TikTok and X (formerly Twitter) have now become the main channels for students to connect, access information, share experiences, and build social networks. This phenomenon positions social media as an essential element in students' daily lives, which can influence their thoughts, emotions, and behaviors.

In the context of education, particularly in technical institutions such as Polytechnics, the aspect of students' character and psychosocial development should not be overlooked. One of the key elements in students' personal development is self-concept, which refers to how individuals evaluate, interpret, and understand themselves from emotional, social, and academic perspectives. Self-concept refers to an individual's perception and evaluation of himself that involves emotional, social and cognitive dimensions [1]. A positive self-concept can help students build confidence, enhance motivation, and adapt effectively to the learning environment as well as the challenges of the working world. Self-concept refers to individuals' perceptions and evaluations of themselves, encompassing emotional, social, and cognitive dimensions [2]. Among higher education students, self-concept plays a crucial role in shaping self-confidence, motivation, and academic achievement [3]. Contemporary studies have found that students with a higher level of self-concept tend to be more proactive in social engagement and possess better adaptability in learning environments [4]. Within the technical education context such as Polytechnics, fostering a positive self-

concept is essential to ensure that students are not only competent in technical aspects but also competitive in terms of communication, collaboration, and leadership [5].

However, there is growing concern that uncontrolled use of social media may affect the development of students' self-concept. For example, the social pressure to portray a perfect self-image, the tendency to compare oneself with others, and dependence on recognition in the form of likes, comments, or shares may influence how students perceive and evaluate themselves. This, in turn, raises questions about the extent to which social media impacts the development of identity and self-esteem among students in technical institutions.

In this regard, this study was conducted to examine the level of social media usage among Polytechnic students and its relationship with aspects of self-concept. It is hoped that this study will provide deeper insights into the effects of social digitalization on students' psychological well-being within the context of technical education.

1.1 Problem Statement

Social media has become an integral part of students' daily lives, particularly among those in Higher Education Institutions (HEIs) [1]. With easy access through smartphones and high-speed internet connectivity, students now spend a significant amount of time on various platforms such as Facebook, TikTok, Instagram, and X (Twitter) [4]. A report by the Malaysian Communications and Multimedia Commission [6] also revealed that students aged between 18 and 24 years represent the most active group of internet users in Malaysia. While social media serves as a channel for communication, entertainment, and information sharing, its excessive use has raised increasing concerns regarding students' psychosocial well-being, including emotional stress, social comparison, and social isolation [3][7]. This situation highlights the need to examine the impacts of social media usage more comprehensively, particularly in the context of students' character development and self-concept formation in HEIs.

One of the growing issues of concern is the impact of social media usage on students' self-concept. Influences such as the culture of comparing oneself with other users, dependence on online approval in the form of likes or comments, and the desire to meet the social standards portrayed on social media may affect how students perceive and evaluate themselves [8][9]. Studies have shown that frequent engagement in social comparison on social media may erode self-confidence and increase dissatisfaction with oneself, especially when students compare their real lives with the filtered or "beautified" images shared online [10]. In some cases, students may feel insecure, inferior, or stressed when their lives do not appear to match those of their peers online, which in turn impacts their emotional well-being and the development of their self-concept [11].

For Polytechnic students, who are in a critical phase of shaping their identity and personal maturity, balancing digital life with the development of self-concept is essential. However, systematic studies on the effects of social media usage on self-concept among students in technical institutions remain limited, particularly in the Malaysian context.

Therefore, this study is conducted to identify whether there is a significant relationship between the level of social media usage and the level of self-concept among Polytechnic students. The findings are expected to provide preliminary insights into the implications of social media usage on students' psychosocial development and assist institutions in designing appropriate interventions.

1.2 Research Objective

This study is conducted with the aim of understanding the effects of social media usage on the formation of self-concept among students in technical education institutions. Specifically, the objectives of this study are as follows:

- i. To determine the level of social media usage among Polytechnic students.
- ii. To assess the level of students' self-concept based on emotional, social, and academic aspects.
- iii. To analyse the relationship between social media usage and self-concept among Polytechnic students.
- iv. To identify differences in social media usage and self-concept based on gender or academic programme (if any).

1.3 Research Questions

In line with the objectives of this study, the following research questions are formulated:

- i. What is the level of social media usage among Polytechnic students?
- ii. What is the level of self-concept among Polytechnic students in terms of emotional, social, and academic aspects?
- iii. Is there a significant relationship between social media usage and self-concept among Polytechnic students?
- iv. Are there any differences in social media usage and self-concept based on gender or academic programme?

1.4 Research Hypotheses

To fulfil the stated objectives, this study is designed to address the following research questions:

H₀₁: There is no significant relationship between social media usage and self-concept among Polytechnic students.

H₁₁: There is a significant relationship between social media usage and self-concept among Polytechnic students.

H₀₂: There is no significant difference in social media usage based on gender or academic programme.

H₁₂: There is a significant difference in social media usage based on gender or academic programme.

H₀₃: There is no significant difference in self-concept based on gender or academic programme.

H₁₃: There is a significant difference in self-concept based on gender or academic programme.

2. LITERATURE REVIEW

Social media refers to online platforms that enable users to create, share, and exchange information in the form of text, images, videos, or links interactively. According to [12], social media is a group of Internet-based applications built upon the ideological and technological foundations of Web 2.0, which allow the creation and exchange of user-generated content. Among the most popular platforms among students are Facebook, Instagram, TikTok, and X (formerly known as Twitter).

2.1 Use of Social Media among Students

In today's digital era, social media has become an integral part of students' daily lives in Higher Learning Institutions (HLIs). Platforms such as Facebook, Instagram, TikTok, WhatsApp, and Telegram are widely used not only for communication and entertainment but also as tools for learning and self-development. Its usage has gained significant ground among adolescents and students in HLIs, who represent some of the most active social media users in Malaysia. A study conducted by the Malaysian Communications and Multimedia Commission (MCMC, 2023) reported that more than 90% of youth aged between 18 and 24 years actively use social media on a daily basis, with an average usage exceeding 3 hours per day. Social media is used for various purposes, including communicating with peers, seeking information, as well as serving as a medium of entertainment and self-expression. Frequent use of platforms such as Instagram, TikTok, and Facebook may have implications for mental health and social development [13]. Factors such as frequency of use, the type of platforms utilized, and the purpose of usage play significant roles in determining its impact on students.

Jafri et al. found that the widespread use of social media among university students in Malaysia has revolutionised the way they interact and share information [14]. While there are benefits in terms of enhanced interaction and easy access to information, excessive use of social media may also have negative consequences, such as concentration problems, digital addiction, and mental health issues [15]. Overuse of social media among students may also result in academic fatigue, which subsequently affects academic performance and psychological well-being [14]. This is consistent with the findings of Zulkifli and Abidin [16], who stated that students' over-engagement with social media has the potential to cause negative outcomes, particularly in terms of emotional balance and behaviour. Such overuse

can undermine students' academic focus, disrupt sleeping patterns, and increase the risk of psychological disorders such as stress and anxiety. Dependence on online validation and social comparison also exerts internal pressure on students' self-image.

Furthermore, a study by Affarizan Sidek reported that social media addiction is closely related to lower life satisfaction among polytechnic students [17]. Imbalanced social interaction, peer influence in online settings, and the lack of self-control contribute to the development of maladaptive behaviours.

2.2 Students' Self-Concept

Self-concept refers to an individual's perception, evaluation, and belief about themselves, which encompasses various dimensions such as self-image, self-esteem, self-confidence, and socio-academic aspects. According to Shavelson et al., self-concept is a multifaceted and hierarchical construct that influences how individuals perceive their abilities and interact with their environment [18]. In the context of students, self-concept plays a crucial role in shaping their academic motivation, social interaction, and overall psychological well-being.

Several scholars argue that self-concept is not static but rather dynamic, influenced by social experiences, academic achievements, and feedback from peers and teachers [19]. Students with a positive self-concept tend to exhibit higher levels of confidence, resilience, and academic achievement, while those with a negative self-concept may experience feelings of inadequacy, social withdrawal, and poor academic performance [20][21].

Studies have demonstrated that students with a positive self-concept tend to exhibit higher levels of academic achievement, social competence, and emotional resilience [22]. For instance, Marsh and Craven highlighted that a well-developed academic self-concept is strongly associated with persistence in learning, better self-regulation, and improved educational outcomes [19]. Conversely, a negative self-concept may result in lower self-esteem, reduced academic performance, and difficulty in managing interpersonal relationships [23].

In the context of Technical and Vocational Education and Training (TVET), including Polytechnics in Malaysia, students' self-concept is particularly significant as it not only relates to their academic capabilities but also their confidence in technical skills, problem-solving abilities, and interpersonal communication [24]. A strong self-concept enables students to become more adaptable, resilient, and employable in the labour market [25]. Moreover, social self-concept influences their ability to collaborate, build networks, and assume leadership roles within both academic and workplace settings.

Therefore, understanding students' self-concept provides valuable insights into their holistic development, linking psychological well-being with academic and professional success. This underscores the importance of examining how external factors, such as social media use, may shape the self-concept of Polytechnic students in Malaysia.

2.3 The Relationship Between Social Media Use and Student's Self-Concept

Recent literature underscores the importance of qualitative patterns of social media engagement in shaping self-concept. A systematic review on adolescents' social media activity revealed that active and authentic participation—rather than sheer screen time—is positively associated with self-concept clarity. In contrast, frequent social comparisons were linked with identity distress.

Further, university-level research found that self-esteem and online social support serve as mediators in the relationship between social media use and psychological well-being, measured as both psychological (PWB) and subjective (SWB) facets. Significantly, experiences of cyberbullying weakened these positive associations.

Within the Malaysian context, studies indicate that excessive social comparison and validation-seeking behaviors on social media correlate with diminished self-esteem among youth.

Together, these findings suggest that the influence of social media on self-concept among Polytechnic students may depend more on the nature of engagement—such as the level of authenticity, social support, and exposure to negative online behaviours—than on frequency of use alone.

2.3 Student Self-Concept (Based on TSCS)

Self-concept refers to how an individual perceives and evaluates oneself, encompassing aspects such as self-image, self-esteem, and self-efficacy. In the context of students, social media can play a significant role in shaping self-perception, either positively or negatively. For instance, the constant exposure to peers' lifestyles frequently displayed on social media may create pressure and contribute to the development of unrealistic self-images.

The Tennessee Self-Concept Scale (TSCS), originally developed by Fitts by 1965 and later revised by Fitts and Warren [26], is one of the most widely used psychometric instruments for assessing self-concept. It provides a comprehensive measure of how individuals perceive, feel about, and evaluate themselves across multiple dimensions. Within the context of student research, TSCS is particularly relevant as it captures students' self-assessment in terms of personal identity, self-worth, and social-academic functioning, thereby offering valuable insights into their overall self-concept.

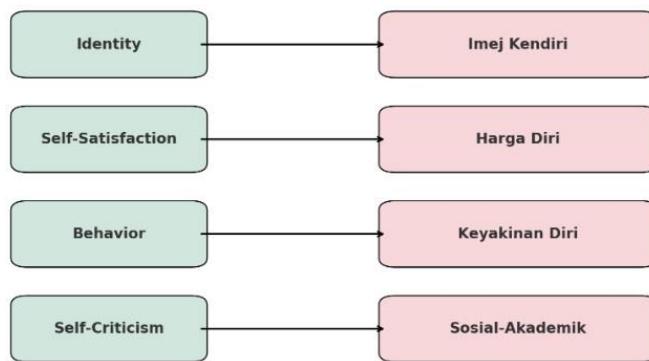


Figure 1. Student Self-Concept based on TSCS.

i) Self-Image / Identity

Self-image refers to how students define and perceive themselves—"who I am"—including their roles as learners, personal values, and sense of authenticity. Within the digital ecosystem, patterns of engagement (e.g., active versus passive use) are more meaningful than mere screen time. Recent systematic reviews indicate that authentic engagement with social media is associated with greater self-concept clarity, whereas upward social comparison tends to predict identity diffusion and identity distress. A frequently reported mechanism is repeated exposure to curated content from peers or influencers, which shifts students' focus from their actual selves toward idealized personas.

ii) Self-Esteem

Self-esteem represents a global evaluation of one's worth. Contemporary evidence demonstrates a small yet significant relationship between social media use and self-esteem outcomes among youth populations. While most students appear minimally affected, specific subgroups (such as those engaged in appearance-based comparisons) tend to exhibit lower self-esteem. Studies published between 2022 and 2024 consistently highlight body image as a mediating factor: heavy or compulsive use is linked to increased appearance-related anxiety, which in turn suppresses self-esteem. Public health guidelines have also recognized this pattern, emphasizing the importance of reducing appearance-focused exposure and managing social comparison behaviors.

iii) Confidence / Self-Efficacy

Confidence, often operationalized as self-efficacy, refers to an individual's belief in their ability to accomplish specific tasks. In TVET and polytechnic contexts, both academic and technical self-efficacy are critical for success. Recent empirical evidence suggests that social media use centered on collaborative learning and academic communities can strengthen self-efficacy and learning performance. Moreover, self-efficacy often acts as a positive moderator or mediator in the relationship between social media-based collaboration and learning outcomes. Courses supplemented

with social media support have also been shown to predict improvements across multiple dimensions of learning efficacy. Nonetheless, excessive multitasking or unstructured use may counteract these potential benefits.

iv) Social–Academic Functioning

This domain encompasses social competence (e.g., peer relationships and social support), academic engagement, and adaptability within learning environments. Contemporary university-level research indicates that online social support and self-esteem mediate the positive impact of social media use on well-being. However, negative experiences such as cyberbullying can weaken these positive associations, suggesting that the quality of online interactions significantly shapes social–academic functioning. Furthermore, recent longitudinal and experimental studies show that short-term restrictions on social media use do not necessarily enhance well-being, reinforcing the view that the structure of use (what, how, and with whom) matters more than the overall quantity of time spent in determining social–academic outcomes.

3. RESEARCH METHODOLOGY

The subsequent phase involved the testing of the research instrument. The instrument was administered to a group of 10 students at PMJ for Semester I of the 2024/2025 session. This process enabled necessary refinements to the questionnaire to be made in full prior to its distribution to the actual respondents. Findings from the pilot study indicated that the instrument achieved a Cronbach's Alpha (α) reliability coefficient of .840, demonstrating a high level of internal consistency. According to established guidelines, a coefficient value above .80 is generally regarded as very good and indicates strong reliability of the instrument [27][28].

Table 1. Interpretation of Alpha-Cronbach scores (Bond & Fox 2007).

Alpha-Cronbach's Score	Reliability
0.9 – 1.0	Very good and effective with a high level of consistency
0.7 – 0.8	Good and acceptable
0.6 – 0.7	Acceptable
<0.6	Item needs to repair
<0.5	Items need to be dropped

This study employed a quantitative descriptive survey approach to address the stated research objectives. Such a design enables the researcher to systematically collect numerical data through questionnaires in order to analyze patterns of relationships between variables. The research instrument utilized an online questionnaire distributed via Google Form, consisting of sections on demographic information as well as items designed to measure the levels of self-concept, learning styles, and types of academic motivation among respondents.

The study population comprised students from Semester 1 to Semester 5 who were enrolled in various academic programmes at Politeknik Mersing Johor (PMJ) during the Second Session of the 2024/2025 academic year. The study sample consisted of 193 respondents. The five academic programmes offered at PMJ include:

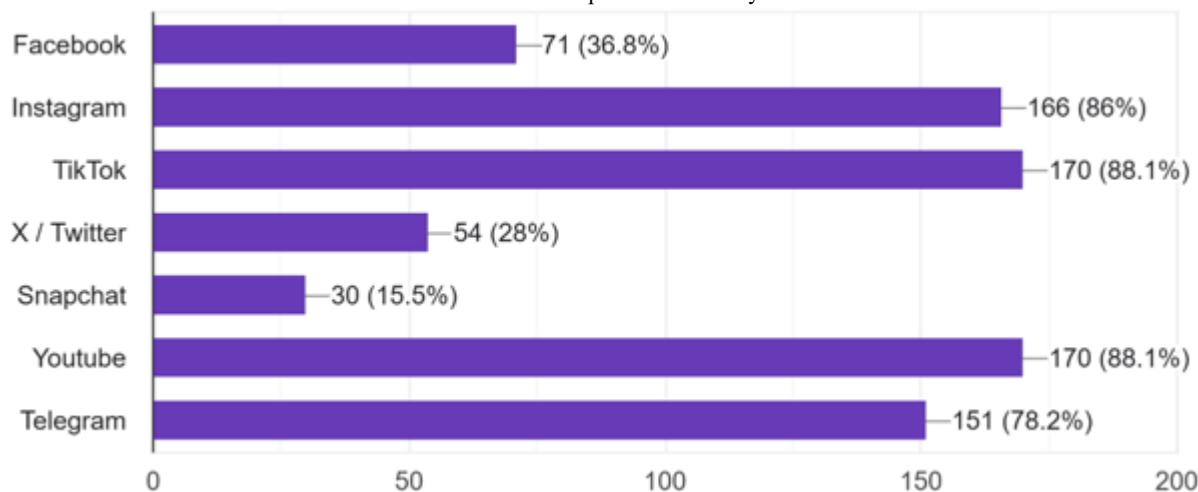
- Diploma in Information Technology (DIT/DDT)
- Diploma in Electrical and Electronic Engineering (DEE)
- Diploma in Electrical Engineering (DET)
- Diploma in Office Management and Secretary Studies (DSK)
- Diploma in Business Studies (DPM)

Data were collected using an online questionnaire administered via Google Form. From the responses obtained, 49.7% (96 male students) and 50.3% (97 female students) participated in this study.

Table 2. Demographic profile of respondents.

Demographic Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	96	49.7%
	Female	97	50.3%
Age	18–19 years	92	47.7%
	20–21 years	84	43.5%
	22 years and above	17	8.8%

Study Program	DDT/DIT	87	45.1%
	DEE	34	17.6%
	DET	14	7.3%
	DSK	21	10.9%
	DPM	37	19.2%
Semester of study	Semester 1	37	19.7%
	Semester 2	70	37.2%
	Semester 3	10	5.3%
	Semester 4	59	31.4%
	Semester 5	12	6.4%
What social media platforms do you use?			
	Youtube	170	88.1%
	TikTok	170	88.1%
	Instagram	166	86.0%
	Telegram	151	78.2%
	Facebook	71	36.85
	X / Twitter	54	28.0%
	Snapchat	30	15.5%

Table 3. Social media platforms used by students.

Section A consists of respondents' demographic information. This section includes seven (7) items related to respondents' background, namely gender, age, academic programme, semester of study, social media platforms used, the platform most frequently used, and the amount of time allocated to social media usage.

Section B focuses on social media usage and comprises five (5) items, while Section C addresses aspects of students' self-concept, which include self-image, self-esteem, self-confidence, and social-academic functioning. Each questionnaire item was measured using a four-point Likert scale. According to Joshi [29], various forms of Likert scales exist, including even-numbered scales such as the four-point scale. The authors emphasise that even-point scales are particularly useful as they eliminate a neutral option and thereby encourage respondents to take a definitive stance. In the context of this study, the four-point scale was deemed more appropriate as it reduces the possibility of central tendency bias and compels respondents to express a clearer position regarding their social media usage and self-concept. This approach enhances the precision of the data collected and strengthens the reliability of the findings.

Table 4. 4-Point Likert Scale.

Scale Code	Scale Description
4	Strongly Agree
3	Agree
2	Disagree
1	Strongly Disagree

4. RESULTS

To achieve this objective, the study examined the extent to which students at Politeknik Mersing utilise social media in their daily lives. Five (5) items in the questionnaire related to usage frequency, daily duration, dependence on social media, and purposes such as entertainment, learning, and communication were used to measure the level of social media usage. A 4-point Likert scale was employed to obtain quantitative feedback, ranging from “Strongly Disagree” to “Strongly Agree”. The mean scores for each item were calculated using descriptive statistics such as mean, standard deviation, minimum, and maximum values.

Based on these data, the level of social media usage was categorised into three levels — low, moderate, and high — according to score ranges. This analysis provides an overview of how dependent students are on social media and the extent to which it is embedded in their daily routines. It also enables the institution to better understand the patterns of digital engagement among their students.

Table 5. Categories of Social Media Usage Level Based on Mean Score.

MEAN SCORE RANGE	USAGE LEVEL
1.00 – 1.99	Low
2.00 – 2.99	Moderate
3.00 – 4.00	High

This classification is adapted based on Likert scale interpretation guidelines commonly used in educational research [30][31].

4.1 Findings For Objective 1: To Determine The Level Of Social Media Usage Among Polytechnic Students.

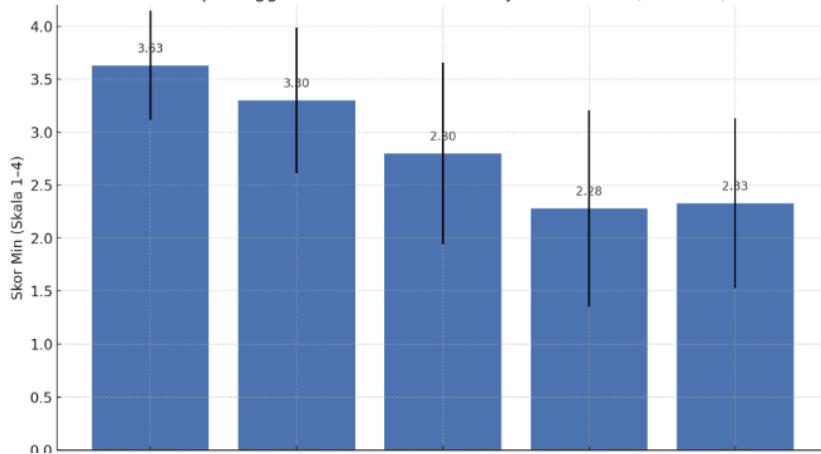
Descriptive analysis findings indicate that the overall level of social media usage among Polytechnic students is at a moderately high level. Five items related to social media usage were analysed, with mean values ranging from 2.28 to 3.63. The item “I frequently use social media on an almost daily basis” (B1) recorded the highest mean score ($M = 3.63$, $SD = 0.516$), indicating that the majority of students are active daily users of social media. Conversely, the item “I often compare myself with others on social media” (B4) showed the lowest mean score ($M = 2.28$, $SD = 0.928$), suggesting that social comparison is not a dominant behavior among students in their use of social media platforms.

Table 6. Mean and Standard Deviation (SD) for level of social media usage.

Item	Statements	Mean	SD
B1	I frequently use social media on an almost daily basis.	3.63	0.516
B2	I spend more than three hours per day on social media.	3.30	0.687
B3	I use social media to keep up with current trends.	2.80	0.855
B4	I often compare myself with others on social media.	2.28	0.928
B5	I utilise social media for learning purposes.	2.33	0.800

Overall, the average mean score for all five items was around 2.87, indicating a fairly consistent but varied use depending on purpose. This is in line with findings by Karim et al. [32] and Lim & Ismail [33], who found that students in Malaysian higher education institutions actively use social media, though not necessarily for the same reasons. Usage tends to focus on daily communication, entertainment, and information, rather than purely as a response to personal emotions.

The following bar graph illustrates the level of social media usage among Polytechnic students based on the five questionnaire items.

Table 7. Bar graph showing the level of social media usage by students at PMJ.

4.2. Findings For Objective 2: To Assess The Level Of Students' Self-Concept Based On Self-Image, Self-Esteem, Self-Confidence, And Social-Academic Dimensions.

To assess the level of self-concept among students, a total of 15 items were analyzed and grouped into four main domains, namely self-image, self-esteem, self-confidence, and social-academic. Each item was measured using a 4-point Likert scale, ranging from “Strongly Disagree” (1) to “Strongly Agree” (4). The mean scores and standard deviations for each domain were calculated to determine the students’ overall level of self-concept.

Table 7. Average Score for Each Domain

Self-Concept Domain	Items	Mean Score	SD
Self-Image	C1–C3	2.94	±0.71
Self-Esteem	C4–C6	3.34	±0.57
Self-Confidence	C7–C9	3.10	±0.62
Social & Academic	C10–C15	3.14	±0.61

The descriptive analysis of the four domains of self-concept indicates that the average scores of Polytechnic students are at a moderately high level, with the highest tendency observed in the self-esteem domain ($M = 3.34$, $SD = 0.57$). This is consistent with the findings who reported a significant relationship between self-esteem and academic achievement as well as gender identity among Malaysian higher education students [34]. Their study demonstrated that students who evaluate themselves positively tend to have stronger academic motivation and greater psychological resilience. This suggests that the majority of students perceive themselves positively, believe in their own potential, and possess a sense of being valued and deserving of success. Such conditions form a solid foundation for the development of a healthy identity and psychological well-being among Polytechnic students. High levels of self-esteem are often associated with better academic performance and resilience in facing challenges.

In comparison, the social-academic domain ($M = 3.14$, $SD = 0.61$) and the self-confidence domain ($M = 3.10$, $SD = 0.62$) also reflect a stable level, supporting students in interacting effectively within the learning context. A meta-analysis found that a positive academic self-concept is a strong predictor of students’ academic performance in collectivist cultures such as Malaysia. This highlights the relevance of social-academic values and self-confidence in influencing learning outcomes [35].

Based on the mean score for self-confidence ($M = 3.10$, $SD = 0.62$), Polytechnic students demonstrate a moderately high level of self-confidence. This suggests that they are capable of interacting effectively in social contexts, expressing their opinions, and displaying confidence in decision-making and task execution. A mean score above 3.0 on a 4-point Likert scale indicates that most students perceive their abilities positively, though there remains room for enhancement. This finding supports the importance of reinforcing learning strategies that nurture self-confidence—such as collaborative learning and group presentations.

A recent Malaysian study by Hamzah et al. [36] confirms that collaborative learning significantly improves cognitive engagement and reflective skills among technical and vocational students, which in turn bolsters students' confidence in academic settings.

On the other hand, the self-image domain recorded the lowest mean score ($M = 2.94$, $SD = 0.71$), suggesting that many students still lack confidence in their self-image—an aspect that is seldom addressed in local educational literature. A study highlighted the connection between self-concept clarity and excessive internet use, indicating that uncertainty in self-image can negatively affect the psychological well-being of undergraduates in Malaysia [37]. A recent study by Pang et al. [38] found that lower self-concept clarity significantly predicts higher levels of loneliness among college students via mediating factors such as fear of negative evaluation and reduced self-disclosure. In Southeast Asian education settings, a lack of sense of belonging is also shown to be associated with increased anxiety, lowered self-esteem, and poorer mental health outcomes [39]. These findings collectively indicate that among technical education students, insufficient clarity in one's self-image may not only provoke emotional distress but also erode social connectedness and identity coherence—thereby negatively impacting overall psychological well-being and academic confidence.

Overall, the aggregate mean score of self-concept reflects that students are within a positive range; however, greater attention is required for the self-image domain to further strengthen identity development. This finding is consistent with recent literature that emphasizes the need for targeted interventions in technical institutions to enhance students' emotional adjustment and identity clarity, particularly in areas related to self-worth and self-acceptance.

4.3 Findings For Objective 3: Analysing The Relationship Between Social Media Usage And Self-Concept Among Polytechnic Students.

Table 7. Average Score for Each Domain.

r Value	Strength of Relationship
0.10–0.29	Weak
0.30–0.49	Moderate
0.50–0.69	Strong
≥ 0.70	Very Strong

Note: Based on Cohen's (1988) guidelines for interpreting the strength of correlation coefficients.

Findings of Hypothesis H₀₁: There is no significant relationship between social media usage and self-concept among Polytechnic students.

Interpretation of Correlation Findings (Objective 3 – Self-Image)

Table 8. Correlation of Social media usage with Self-image.

		Self-image
Social media usage	Pearson Correlation (r)	-.029
	Sig. (2-tailed)	.685
	N	193

The results of the Pearson correlation analysis indicate that there is no significant relationship between the level of social media usage and students' self-image ($r = -0.029$, $p = 0.685$). The correlation value, which is very close to zero, together with the p-value exceeding the 0.05 significance level, suggests that the frequency or intensity of social media use does not have a meaningful association with how students perceive their self-image.

This finding contrasts with several previous studies that reported a link between social media usage and self-image, particularly in relation to social comparison culture and appearance-related pressures [41][37]. However, it may also reflect that Polytechnic students are more mature in their social media engagement or are not directly influenced in terms of their self-perception.

Interpretation of Correlation Findings (Objective 3 – Self-Esteem Domain)

Table 9. Correlation of Social media usage with Self-esteem.

		Self-esteem
Social media usage	Pearson Correlation (r)	.054
	Sig. (2-tailed)	.457
	N	193

The results of the Pearson correlation analysis indicate that there is no significant relationship between the level of social media usage and students' self-esteem ($r = 0.054$, $p = 0.457$). The very weak and positive correlation value, together with the p-value greater than 0.05, suggests that social media use is not a major factor influencing students' perception of their self-worth and personal value.

This finding is consistent with several previous academic studies. For instance, Zainuddin et al. [42] found that the daily time spent on social media did not significantly affect the self-esteem levels of Malaysian undergraduates. Similarly, a study among nursing students in Saudi Arabia also reported that most students' self-esteem was not significantly associated with social media use ($r \approx 0.047$, $p > 0.05$) [43].

Both studies support the hypothesis that the relationship between social media and self-esteem exists only in specific contexts. In the present study, the non-significant relationship may be attributed to factors such as digital maturity or the reflective approach of Polytechnic students in shaping their self-identity, whereby they do not rely heavily on external validation to build their self-esteem.

Interpretation of Correlation Findings (Objective 3 – Self-confidence Domain)

Table 10. Correlation of Social media usage with Self-Confidence.

		Self-confidence
Social media usage	Pearson Correlation (r)	.023
	Sig. (2-tailed)	.748
	N	193

The results of the Pearson correlation analysis indicate that there is no significant relationship between the level of social media usage and students' confidence ($r = 0.023$, $p = 0.748$). The very weak and non-significant correlation suggests that social media use does not have a clear impact on students' courage or confidence in expressing opinions, making decisions, or taking action in academic and social contexts.

Similarly, Rosli et al. [44] found that the frequency of social media use was not significantly correlated with the level of social confidence among higher education students in the Klang Valley. This suggests that confidence may be shaped more by factors such as real-life experiences, peer support, or co-curricular involvement, rather than online interactions.

Interpretation of Correlation Findings (Objective 4 – Self-Confidence Domain)

Table 11. Correlation of Social media usage with Social-Academic.

		Social-Academic
Social media usage	Pearson Correlation (r)	-.084
	Sig. (2-tailed)	.244
	N	193

The Pearson correlation results indicate that there is no significant relationship between social media usage and students' socio-academic abilities ($r = -0.084$, $p = 0.244$). Although the negative correlation value suggests a slight tendency for increased social media use to be associated with lower socio-academic competence, the relationship is too weak and insignificant to draw any convincing conclusion.

This finding is consistent with the study by Farahani et al. [45], which reported no significant relationship between intensive social media use and students' ability to adapt within the learning environment. They suggested that factors such as time management, self-discipline, and interpersonal skills play a greater role in shaping socio-academic competence compared to online activities.

Overall, the correlation results show that there is no significant relationship between social media usage and any of the self-concept domains among Polytechnic students. All r-values fall within the very weak range, and all p-values exceed 0.05, indicating that variations in students' self-concept are not directly influenced by social media usage.

This suggests that the development of students' self-concept may rely more on internal factors such as motivation, life experiences, and physical as well as academic social support.

4.3 Findings for Objective 3: Social Media Usage by Gender

Table 12. Correlation of Social media usage with Social-Academic.

Test	Value
Levene's Test Sig.	0.674
t	-5.383
df	191
Sig. (2-tailed)	0.000
Mean Difference	-0.386
95% CI (Lower, Upper)	-0.527, -0.244

The results of the independent samples t-test show that there is a significant difference between male and female students in the level of social media usage, $t(191) = -5.383$, $p < 0.001$. This means that gender influences the level of social media usage, where the mean score of social media usage among female students is significantly higher compared to male students, with a mean difference of 0.386 units.

This finding is consistent with the study by Nasir et al. [46], which found that female students are more active on social media, particularly on platforms such as Instagram and TikTok, compared to male students. This may be due to the tendency of female students to use social media as a channel for emotional communication and social support.

4.4 Findings for Objective 4: Social Media Usage by Programme

Table 13. Results of ANOVA on Social Media Usage Based on Programme of Study.

Source of Variation	Sum of Squares (SS)	df	Mean Square (MS)	F Value	Sig. (p)
Between Groups	2.788	4	0.697	2.535	0.042
Within Groups	51.682	188	0.275		
Total	54.470	192			

The results of the one-way ANOVA analysis show that there is a statistically significant difference in the level of social media usage among students based on their programme of study, $F(4, 188) = 2.535$, $p = 0.042$. This indicates that the programme of study plays a role in influencing students' level of social media usage.

However, since ANOVA only indicates that a difference exists, further analysis using Tukey's Post Hoc Test was conducted to determine which specific programme groups differ from each other in terms of social media usage.

The results of the post hoc analysis revealed that only one programme pair demonstrated a statistically significant mean difference, namely:

Students from the DPM (Diploma in Business Management) programme had a significantly higher social media usage score compared to students from the DEE (Diploma in Electrical Engineering) programme, with a mean difference of 0.366 units, $p = 0.030$.

For all other programme pairs, no significant differences were found ($p > 0.05$), as summarised in the table below.

Table 14. Summary of Post Hoc Comparison (Tukey HSD).

Programme Pair	Mean Difference (I-J)	p-value	Significant?
DPM vs DEE	0.366	0.030	Yes
DDT/DIT vs DPM	0.224	0.192	No
DEE vs DSK	-0.293	0.264	No

DET vs DSK	-0.081	0.992	No
Other pairs	—	> 0.05	No

A follow-up analysis using Tukey's Post Hoc Test was conducted to identify academic programmes that showed significant differences in the level of social media usage. Particular emphasis was given to the Diploma in Business Management (DPM) programme, as it recorded the highest mean of social media usage among all programmes.

The comparison results are as follows:

DPM vs DEE (Diploma in Electrical Engineering): Mean difference = 0.366, $p = 0.030$

→ Statistically significant. This indicates that DPM students use social media more frequently compared to DEE students. This difference may be due to the nature of the DPM programme, which is more closely related to communication, marketing, and information management, making social media an important channel for their interaction and learning. A study by Yusri et al. [47] also supports this finding, as it found that students in social sciences and management fields tend to use social media more actively compared to engineering students.

DPM vs DDT/DIT (Diploma in Information Technology): Mean difference = 0.224, $p = 0.192$

→ Not significant. Although DPM students reported slightly higher usage, the difference was not strong enough to be considered statistically significant.

DPM vs DSK (Diploma in Secretarial Science): Mean difference = 0.073, $p = 0.986$

→ Not significant. The very small mean difference indicates that students from both programmes have almost the same level of social media usage.

DPM vs DET (Diploma in Electrical and Electronic Engineering): Mean difference = 0.154, $p = 0.882$

→ Not significant. This suggests that although there is a slight difference, it is not large enough to show a meaningful statistical effect.

Overall, only the comparison between DPM and DEE students showed a meaningful difference in social media usage. This finding suggests that the field of study may play a role in shaping students' patterns of social media use, consistent with the findings of Azizan et al. [48], who reported that academic discipline influences both the purpose and frequency of social media usage.

5. DISCUSSION

The findings of this study reveal several important insights into the relationship between social media usage and self-concept among Polytechnic students. Firstly, the descriptive analysis indicated that the overall level of social media usage among students was at a moderately high level, with the majority reporting daily engagement on various platforms. This aligns with broader Malaysian trends, where young adults are among the most active social media users in Southeast Asia [49]. However, the analysis also highlighted that students did not use social media primarily as a tool for social comparison, suggesting a more functional or pragmatic approach towards its usage in academic and communicative contexts.

In terms of self-concept, the study revealed that self-esteem emerged as the strongest domain ($M = 3.34$, $SD = 0.57$), followed by social-academic ($M = 3.14$, $SD = 0.61$) and confidence ($M = 3.10$, $SD = 0.62$). Conversely, self-image was the weakest domain ($M = 2.94$, $SD = 0.71$). These findings indicate that while students generally have a positive evaluation of their self-worth and maintain adequate confidence in academic and social situations, there remains some uncertainty in how they perceive their self-image. This echoes the findings of Hung and Juhari [37], who highlighted that low self-concept clarity may influence psychological well-being among Malaysian undergraduates.

While direct empirical evidence linking heavy social media exposure to self-image concerns among technical or vocational student populations remains limited, numerous recent studies in related populations provide substantial support. A study of Omani university students found that high social media usage was significantly correlated with increased body image dissatisfaction and indicators of poor mental health such as low self-esteem [50]. Similarly, research among Lebanese university students revealed that social media addiction was strongly associated with

elevated body image concerns, emotional overeating, and lower overall well-being [51]. Another study spanning Japanese and Chinese college students demonstrated that intense social media use was linked to greater body esteem issues and disordered eating tendencies, particularly mediated by body esteem [52]

Interestingly, the correlation analysis showed no significant relationship between social media usage and any of the four domains of self-concept (self-image, self-esteem, confidence, and social-academic). While direct empirical evidence linking heavy social media exposure to self-image concerns among technical or vocational student populations remains limited, numerous recent studies in adjacent contexts offer credible support. For example, an observational study among young adults in Spain found that increased time spent on Instagram was significantly associated with greater dissatisfaction with one's body image, lower self-esteem, and a stronger tendency toward physical comparison with others [53]. Additionally, among public university students in Malaysia's Klang Valley, higher intensity of Instagram use correlated negatively with self-esteem ($r = -0.20, p < 0.01$); notably, ability-based social comparisons were inversely related to self-esteem, whereas opinion-based comparisons showed a positive association [54]. These findings underscore the complex dynamics between social media usage, self-presentation pressures, and personal self-concept—even if such effects are understudied within technical or vocational education settings. Similarly, Ibrahim et al. [55], in a study among Saudi nursing students, found that social media activity was unrelated to students' self-perceptions, suggesting that the influence of social media may be more contextual than universal. One plausible explanation is that Polytechnic students in this study use social media primarily for academic and networking purposes, which reduces the negative effects commonly associated with social comparison.

The analysis of differences by demographic factors also provides meaningful insights. The independent samples t-test revealed a significant difference between male and female students, with female students scoring higher on social media usage. This is consistent with Nasir et al. [56], who reported that female undergraduates in Malaysia were more likely to engage actively on platforms such as Instagram and TikTok. The implication here is that gendered patterns of communication and emotional expression extend into digital spaces, and educators should be mindful of how female students may be more engaged — and potentially more influenced — by social media interactions.

Furthermore, the one-way ANOVA revealed significant programme-based differences, with Business Management (DPM) students reporting higher levels of social media use compared to Electrical Engineering (DEE) students. This finding can be explained by the nature of the DPM programme, which emphasises communication, marketing, and management — disciplines where social media is often integrated into both academic learning and future career practices. This observation mirrors Yusri et al. [47], who found that students in social science fields demonstrated higher reliance on social media compared to engineering students. Such findings underscore the importance of recognising disciplinary differences when designing institutional policies around digital learning and engagement.

5.1 Implications

These findings carry several implications. Firstly, the absence of significant correlations between social media usage and self-concept suggests that interventions to support student well-being should not solely focus on reducing screen time but rather on guiding purposeful and reflective social media use. Secondly, the strong self-esteem scores indicate a positive foundation that institutions can build upon to promote resilience, but the relatively weaker self-image highlights the need for more targeted interventions in promoting self-acceptance and digital literacy. For example, workshops on healthy digital identity construction could help mitigate potential pressures of online comparison. Finally, the gender and programme differences highlight that “one-size-fits-all” interventions may be ineffective, and that policies should be tailored according to students' disciplinary needs and socio-demographic profiles.

5.2 Limitations and Future Research

Despite these contributions, this study has several limitations. The cross-sectional design prevents establishing causality between social media usage and self-concept. The use of self-reported data may also be subject to social desirability bias, where students under- or over-report their actual behaviors. Furthermore, the study was limited to one Polytechnic, reducing the generalizability of the findings to all TVET institutions in Malaysia. Future research could employ longitudinal designs to track changes in self-concept over time, integrate qualitative interviews to better capture students' subjective experiences, and expand the sample across multiple institutions and cultural contexts.

6. CONCLUSION

The analysis showed that Polytechnic students reported a moderate to high level of social media usage. Daily usage scored the highest, while social comparison was the lowest. This suggests that students mainly use social media for communication, entertainment, and learning rather than for comparing themselves with others.

For self-concept, the overall level was moderately high. The strongest domain was self-esteem, reflecting that students valued themselves positively and felt capable in their roles as learners. The weakest domain was self-image, showing that many students were less confident about their personal identity and appearance.

Gender analysis using a t-test revealed a significant difference. Female students used social media more frequently than male students, consistent with past studies on gendered patterns of online engagement.

ANOVA results showed that programme of study influenced social media usage. Post Hoc Tukey tests indicated that Business Management (DPM) students used social media significantly more than Electrical Engineering (DEE) students. Other programme comparisons were not significant.

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