Jurnal Kesehatan Manarang

Jurnal Kesehatan Manarang, Volume 11(3), December 2025, pp. 285– 293
ISSN 2528-5602 (Online), ISSN 2443-3861 (Print)
doi: https://doi.org/10.33490/jkm.v11i3.1845

SELF EFFICACY WITH SMARTPHONE USE AMONG ADOLESCENT GIRLS: A CROSS SECTIONAL STUDY IN SURABAYA

Nety Mawarda Hatmanti[1]✉, Melina Kussumawati[2], Lono Wijayanti[1], Iis Noventi[1]
[1]Faculty of Nursing and Midwifery, Universitas Nahdlatul Ulama Surabaya
[2]Student at Faculty of Nursing and Midwifery, Universitas Nahdlatul Ulama Surabaya

ARTICLE INFO

Article history

Submitted : 2024-12-25
Revised : 2025-07-12
Accepted : 2025-08-12

Keywords:

Self efficacy;
Smartphone use;
Adolescent girls

ABSTRACT

Self-efficacy in adolescents is recognized as an important psychological trait closely associated with success in learning and adaptive behavior. In the era of Society 5.0, adolescent self-efficacy has attracted increasing attention, particularly in relation to smartphone usage habits within the context of online learning. This study aimed to analyze the relationship between self-efficacy and smartphone use among adolescent girls. A correlational analytic design was applied. The study population consisted of all female adolescents in Surabaya (N=235,687), and a total of 400 respondents were selected through cluster random sampling. The independent variable was self-efficacy, and the dependent variable was smartphone usage. Data were collected using the General Self-Efficacy Scale (GSE) and a smartphone usage questionnaire. The data were analyzed using the Spearman rank correlation test with a significance level of $\alpha = 0.05$. The results showed that 72.3% of the respondents had moderate levels of self-efficacy, while 59.5% reported high levels of smartphone use. The Spearman test revealed a statistically significant but weak positive correlation between self-efficacy and smartphone use ($r=0.192$, $p=0.000$). These findings indicate that although a relationship exists between self-efficacy and smartphone use among adolescent girls, the strength of the association is limited. Therefore, interpretations suggesting that higher self-efficacy directly leads to more positive smartphone use should be made cautiously, as this is not strongly supported by the data. The involvement of families and educators remains essential in guiding adolescents toward constructive and responsible smartphone use.

Kata Kunci:

Efikasi diri;
Penggunaan smartphone;
Remaja putri

ABSTRAK

Self efficacy pada remaja telah menjadi karakteristik penting dari remaja dan sangat terkait dengan keberhasilan dalam belajar, bentuk self efficacy era society 5.0 saat ini memiliki perhatian berdasarkan pengalaman dengan kebiasaan menggunakan smartphone dalam konteks pembelajaran online. Tujuan penelitian ini untuk menganalisis hubungan self efficacy dengan penggunaan smartphone pada remaja wanita. Penelitian ini menggunakan analitik korelasional. Populasi penelitian ini seluruh remaja wanita di kota Surabaya sebanyak 235.687 jiwa. Sampel didapatkan 400 responden menggunakan cluster random sampling. Variabel independen ini adalah self efficacy dan variabel dependen ini adalah penggunaan smartphone. Pengumpulan data menggunakan kuesioner general self efficacy (GSE) dan penggunaan smartphone. Analisa data menggunakan uji spearman dengan tingkat signifikan $\alpha = 0,05$. Hasil penelitian didapatkan dari 400 responden sebagian besar (72,3%) responden remaja wanita memiliki self efficacy sedang, dan sebagian besar (59,5%) responden memiliki penggunaan smartphone tinggi. Berdasarkan hasil uji spearman didapatkan nilai p=0,000 yang berarti ada hubungan self efficacy dengan penggunaan smartphone pada remaja wanita. Semakin tinggi self efficacy maka semakin tinggi penggunaan smartphone pada hal yang positif. Namun penggunaan nya harus tetap pada pengawasan orang dewasa di sekitar lingkungan remaja. Oleh karena itu diharapkan peran keluarga dan guru disekolah dapat mendukung serta membantu remaja dalam penggunaan smartphone yang positif.

✉ ***Corresponding Author:***

Nety Mawarda Hatmanti
Telp. 081335494966
Email: nety.mawarda@unusa.ac.id

INTRODUCTION

In recent years, smartphones have become deeply integrated into the everyday lives of Indonesian adolescents, creating a double-edged dynamic in which expanded access to digital learning coexists with growing concerns about excessive screen time and its psychological consequences. According to the Indonesian Central Bureau of Statistics, as of 2022, 67.9% of the national population and 65.2% of East Java residents aged five and older owned a smartphone, with many adolescents reportedly using these devices for up to nine hours per day (Badan Pusat Statistik, 2022). This widespread adoption reflects the central role smartphones now play in adolescent routines, particularly in educational contexts shaped by online learning. While mobile technology offers notable benefits—such as instant access to academic materials, flexible learning environments, and real-time peer collaboration—it also introduces risks, including distraction, dependency, and heightened stress levels (Lin et al., 2019). These mixed outcomes highlight the urgent need to understand how individual psychological factors, such as self-efficacy, influence adolescents' digital behaviors and determine whether smartphone use becomes an empowering educational asset or a source of maladaptive habits.

Self-efficacy, defined as the belief in one's ability to organize and carry out actions required to achieve learning goals, has been linked to positive academic engagement and digital self-regulation (Schunk & DiBenedetto, 2021). Previous research has demonstrated that adolescents with higher self-efficacy tend to show stronger motivation and more constructive smartphone use (Kleppang, Steigen, & Finbråten, 2023), whereas lower levels of self-efficacy are associated with problematic smartphone use and mental health challenges, particularly among female youth (Rudolf & Kim, 2024). Despite growing literature on adolescent digital habits, few studies have examined this relationship within the specific sociocultural context of Surabaya, a rapidly developing urban center with high rates of early smartphone adoption. Notably, 36% of students in Surabaya reported using smartphones primarily for academic purposes (Fauzi, Apriliyanti, Khoir, & Hamu, 2020).

Guided by Bandura's social cognitive theory (Bandura, 2018), this study seeks to address that gap by exploring the association between self-efficacy and smartphone usage patterns among adolescent girls in Surabaya. By focusing on this population, the research aims to inform strategies that promote responsible digital engagement and support adolescents' academic and psychosocial development in the digital age.

Building on Bandura's social cognitive theory, recent investigations from 2019 to 2023 have offered deeper insights into how adolescents' self-efficacy influences their interactions with digital learning environments. Bandura's framework posits that human behavior is shaped by a dynamic interplay between personal factors, behavioral patterns, and environmental influences (Bandura, 2018). Within this triadic reciprocal model, self-efficacy plays a central role as a self-regulatory mechanism that determines how individuals interpret, respond to, and persist in the face of challenges, particularly in contexts requiring independent learning and digital adaptation. This makes the framework especially relevant for understanding adolescent smartphone use, which demands both cognitive control and self-motivation in the face of constant digital distractions.

Applying this theoretical lens allows researchers to examine how internal beliefs about competence (i.e., self-efficacy) interact with environmental exposures (such as smartphone accessibility and online learning platforms) to shape adolescents' behavioral choices, including the duration, purpose, and impact of their device use. In the context of female adolescents, this framework is particularly useful, as their developmental trajectories often involve complex interactions between peer influence, academic demands, and psychosocial stressors, all of which are mediated by their perceived self-efficacy.

Indonesia, as one of the largest smartphone markets in Asia, provides a compelling context for applying this framework. According to Emarketer, Indonesia ranked third in the Asia-Pacific region in terms of smartphone users, following China and India (Retalia, Soesilo, & Irawan, 2022). Regionally, approximately 20% of children aged 6–14 in Southeast Asia, including Indonesia, preferred smartphone play over traditional games, and a UK-based survey by SuperAwesome found that 87% of children now owned smartphones (Sariyani, Ariyanti, Duarsa, & Mutmainah, 2022). Furthermore, the Central Statistics Agency (BPS) reported that in 2022, 67.88% of Indonesia's population owned smartphones, with total users reaching 342.61 million, a significant increase from 65.87% in 2021.

Given this rapid and widespread adoption, understanding psychosocial mechanisms such as self-efficacy that underlie smartphone use among adolescents has become a pressing concern. Bandura's theory provides a robust and empirically grounded framework for analyzing how beliefs about one's capabilities

influence digital behaviors, making it well suited for exploring smartphone usage patterns of adolescent girls in urban Indonesian contexts such as Surabaya.

In recent years, the prevalence of smartphone use among students has rapidly increased, creating both opportunities and challenges in educational settings. Data indicate that Surabaya ranks as the city with the second-highest number of smartphone users in Indonesia, with approximately 956,000 users, of whom 113,584 are teenagers. This mirrors findings from other studies highlighting the deep integration of smartphones among youth for academic and social purposes (Kwak, Cho, & Kim, 2022; Rysbayeva et al., 2022). Smartphones are now the most widely used mobile technology among the younger generation, with 43% of teenagers relying on them. Course Smart, the largest provider of digital learning materials in the world, reported that students consistently check their digital devices, including smartphones and laptops. (Abdullah et al., 2020). Based on several literature studies on the concept of adolescent developmental tasks, which include developing a positive self-concept and self-confidence, these aspects can be nurtured more effectively when adolescents have good self-efficacy (Suryana, Hasdikurn, Harmayanti, & Harto, 2022). Human beings are considered agents with proactive abilities and self-belief, enabling them to regulate and control their thoughts, feelings, and actions, as "what a person thinks, believes, and feels influences how they take action." In this regard, self-efficacy becomes one of the key factors influencing smartphone use among teenagers, alongside advertisements, technological sophistication, affordability, environment, and personal factors (Andira, Usman, & Wowor, 2022). Self-efficacy also carries several functions in individual activities, one of which is the selective function, referring to an individual's ability to choose activities. For adolescents, self-confidence is essential to strengthen this selective function so that they can engage in more productive daily activities and avoid inappropriate or less beneficial smartphone use (Alfaini & Daulay, 2022).

Another study revealed a significant negative relationship between self-efficacy and depression caused by smartphone addiction, but only among teenage girls. This finding relates to gender-based differences in self-control patterns; teenage boys tend to display higher impulsivity and sensation-seeking compared to teenage girls. According to Jo & Bouffard (2014), teenage girls' self-control is generally easier to shape and more strongly influenced by social factors such as smartphone use compared to that of boys (Park & Lee, 2022). Bandura further emphasizes that self-efficacy is a generative capability in which cognitive, social, emotional, and behavioral potentials must be organized and managed to achieve specific goals (Mufidah, Pravesti, & Farid, 2022). However, the relationship between self-efficacy and smartphone use among adolescent girls has not yet been clearly explained. Based on this gap, the city of Surabaya still lacks sufficient data related to adolescent girls' smartphone use, its health impacts, levels of self-efficacy, and their lived experiences in managing smartphone habits. Therefore, this study was conducted with the aim of understanding the relationship between self-efficacy and smartphone use among adolescent girls.

METHOD

Type of Research

This study employed a correlational analytical design with a cross-sectional approach to examine the relationship between self-efficacy and smartphone use among adolescent girls in Surabaya. This design was considered appropriate for identifying whether a statistically significant association existed between the two variables at a single point in time, aligning with the study's aim to explore how self-efficacy relates to patterns of smartphone use. The study was conducted in Surabaya city between April and May 2024.

Population and Sample

The study population consisted of all female adolescents in the city of Surabaya, totaling 235,687 individuals (Dinas Kependudukan dan Pencatatan Sipil Pemerintah Kota Surabaya, 2022). Participants were eligible if they met the following criteria: female adolescents aged 12–19 years, actively enrolled in school during the study period, and owners of a personal smartphone. Female adolescents who were not attending school at the time of data collection were excluded. A cluster sampling technique was applied based on the five administrative regions of Surabaya—Central, North, South, West, and East Surabaya. From these regions, a total of 400 participants were selected, with 80 respondents drawn from each region.

Data Collection

The independent variable in this study was self-efficacy, and the dependent variable was smartphone usage. Self-efficacy in adolescents was measured using the General Self-Efficacy (GSE) questionnaire originally developed by Bandura (1977) and later modified by Janatin (2015). The validity test of the self-efficacy scale, which consisted of 36 items, resulted in the removal of 5 items. Reliability testing using Cronbach's Alpha (α) indicated that the instrument was reliable when the coefficient exceeded 0.6. The reliability score for the self-efficacy questionnaire was 0.897, which is considered strong and reliable for research use (Agesti, Fitryasari, Armini, & Yusuf, 2019).

The intensity of smartphone usage was measured using a structured questionnaire adapted from a published and accessible instrument. The questionnaire consisted of 12 items, each with five Likert-scale response options ranging from 1 (strongly disagree) to 5 (strongly agree). The total score ranged from 12 to 60, with higher scores indicating greater intensity of smartphone use. Scores were classified into five categories: very low, low, moderate, high, and very high usage. Validity testing confirmed that all 12 items were valid. Furthermore, reliability analysis indicated acceptable internal consistency, with a Cronbach's Alpha coefficient greater than 0.6 (Khulwia, 2018).

Data Analysis and Processing

Data were analyzed using the Spearman correlation statistical test with SPSS version 22.0 for Windows at a significance level of $\alpha = 0.05$. If the statistical test results showed $p < \alpha$, then H0 was rejected, indicating a significant relationship between the independent and dependent variables.

RESULT

The research results are divided into general data, which include respondent characteristics, and specific data.

Table 1. Characteristic of respondents (n=400)

No	Category	Characteristic	F	%
1.	Age	Early adolescence	3	0.8
		Middle adolescence	258	64.5
		Late adolescence	139	34.8
2.	Smartphone ownership	Owned by myself	394	98.5
		Shared with parents	6	1.5
3.	Duration of smartphone ownership	1 years	58	14.5
		2 years	92	23.0
		>3 years	250	62.5
4.	The application used	*Social* media	43	10.8
		Online learning application (google, zoom meeting, ruang guru, zenius, etc)	251	62.8
		Translation application	92	23.0
		Camera (selfie, video, etc)	14	3.5
	Total		**400**	**100**

The data on respondent characteristics showed that the sample distribution based on age was mostly (64.5%) in the middle adolescence category (13–15 years), with 258 respondents. In terms of smartphone ownership, almost all respondents (98.5%) owned their personal smartphone. Regarding the duration of ownership, most respondents (62.5%) had used a smartphone for more than three years. Based on application usage, the majority (62.8%) used learning applications on their smartphones, while a smaller proportion used translation applications (23.0%), social media (10.8%), and camera functions such as selfies or videos (3.5%).

Table 2. Level of self efficacy and smartphone use (n=400)

No	Category	Characteristic	F	%
1.	Level of self-efficacy	Low	55	13.8
		Medium	289	72.3
		High	56	14.0
2.	Smartphone use	Very low	0	0.0
		Low	6	1.5
		Medium	117	29.3
		High	238	59.5
		Very high	39	9.8
Total			**400**	**100**

The data indicate that the majority of respondents (72.3%) had a moderate level of self-efficacy, accounting for 289 individuals. Meanwhile, most respondents (59.5%) or 238 individuals demonstrated a high level of smartphone use.

Table 3. The Relationship Between Self-Efficacy and Smartphone Use

		***Smartphone* Used**										**Total**	
		Very low		**Low**		**Medium**		**High**		**Very high**			
		F	**%**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**
Self Efficacy	Low	0	0.0	1	2.2	15	32.6	23	50.0	7	15.2	46	100
	Medium	0	0.0	1	0.3	73	23.4	205	65.7	33	10.6	312	100
	High	0	0.0	1	2.4	4	9.5	18	42.9	19	45.2	42	100
Total		0	0.0	3	0.8	92	23.0	246	61.5	59	14.8	400	100
Spearman's rank		Correlation Coefficient *(r)* : 0.192						*Significance (p)* : 0.000					

The data show that among 312 respondents with moderate self-efficacy, the majority (65.7%) had a high level of smartphone use. Data analysis was conducted using the non-parametric Spearman's rho test, which produced a p-value of 0.000 at a significance level of $\alpha < 0.05$. This result indicates that there is a significant relationship between self-efficacy and smartphone use. The correlation coefficient was 0.192, reflecting a weak positive correlation, meaning that higher self-efficacy is associated with higher smartphone use, while lower self-efficacy is associated with lower smartphone use.

DISCUSSION

Self-efficacy in adolescent girls

Based on 31 self-efficacy questions, the highest average response from respondents indicated that they were afraid of receiving a score below the Minimum Completeness Criteria. The second-highest average response showed that they felt able to complete difficult homework with the help of a smartphone.

According to the researcher, at this stage, adolescents begin to recognize and consider possibilities. With self-efficacy, they are more capable of enduring challenges and striving to overcome undesirable situations. As a result, adolescents tend to manage their anxiety more effectively by reframing worries as challenges to overcome. In the future, this ability may enable them to persist in completing difficult tasks by taking proactive actions, such as using smartphones as tools to support task completion, so that goals can be achieved successfully and on time.

This finding aligns with Bandura's (1986) theory on the mechanism of self-efficacy in adolescent behavior, which explains that self-efficacy beliefs influence most aspects of adolescent functioning,

including stress responses, achievement, and career development. High self-efficacy motivates adolescents to respond adequately to stress and to seek appropriate solutions.

In this study, most respondents with moderate self-efficacy were female adolescents in the middle adolescence phase. Specifically, 203 respondents (50.8%) were in the middle adolescent age category (13–15 years), while 106 respondents (26.5%) were in the late adolescent phase (16–19 years). These developmental stages influence differences in the self-efficacy process among adolescents (Mahardika, Alega, Vira, & Hilmi, 2024). According to the researcher, during middle adolescence, individuals tend to prefer peers with similar qualities. They often exhibit conformist behavior due to emotional and behavioral instability. Thus, if middle adolescents have peers who diligently study and complete assignments, they are likely to imitate such behaviors, which may enhance their self-efficacy through peer observation.

Meanwhile, during late adolescence, individuals generally attain greater behavioral maturity and have broader experiences than middle adolescents. Past experiences then play a crucial role in shaping their self-efficacy, as they have already navigated earlier developmental stages and achieved several small successes. These experiences strengthen their confidence, persistence, and motivation to pursue further achievements. This finding is consistent with (Lianto, 2019), who, referring to Bandura (1977), emphasized that self-efficacy is influenced by several factors, particularly the observation of others' successful experiences and mastery experiences. When individuals observe peers of similar ability successfully accomplishing tasks, they are more likely to believe in their own capability. At the same time, mastery experiences, achievements in past tasks, reinforce confidence and provide momentum to strive for further success. The perception of task difficulty is reframed as a challenge that can be overcome, ultimately strengthening belief in one's abilities. Consequently, self-efficacy can be shaped, enhanced, or diminished through these influential factors.

Smartphone use in adolescent girls

Based on 12 questions regarding smartphone usage, the highest average response from respondents indicated that they used smartphones as a learning resource to expand their knowledge. The second-highest response showed that respondents used smartphones to listen to music while studying as a way to relax. According to the researcher, the availability and diversity of smartphones have made adolescents highly interested in using them on a daily basis. The ease of accessing information encourages adolescents to actively seek knowledge through their smartphones. In addition, the availability of diverse applications, particularly music streaming services, further increases adolescents' interest in using smartphones, as listening to music while studying helps them avoid boredom and provides relaxation during academic activities.

This finding is in line with (Lubis, Junaidi, Damayanti, & Setyoko, 2022), who stated that the widespread and diverse use of smartphones can enhance positive values for users. Among adolescents, smartphones support learning both inside and outside the classroom by facilitating access to study materials and providing opportunities to search for information. The respondent characteristics further support this trend: almost all participants (394 respondents; 98.5%) reported owning a personal smartphone, and the majority (250 respondents; 62.5%) had owned smartphones for more than three years. This pattern reflects a strong engagement with mobile technology among adolescents. Individuals aged 13–19 belong to Generation Z, a cohort born in the digital era and characterized by widespread internet and mobile device access. Consequently, smartphone use has become an inseparable part of their daily routines, functioning as a primary medium for communication, information-seeking, and entertainment.

In this study, adolescent girls were found to use smartphones primarily to support their learning activities. This was reflected in the respondent data, where the majority (251 respondents; 62.8%) reported using smartphones for educational applications such as Google, Ruang Guru, Zoom, and Zenius. The accessibility of these tools—ranging from search engines that enable academic information retrieval to online tutoring platforms offering interactive, video-based content—allows adolescents to engage with educational materials flexibly and interactively. These features foster sustained interest in digital learning, as platforms provide not only user-friendly interfaces but also diverse and engaging experiences.

Furthermore, the association between smartphone use and academic outcomes was evident in responses to a questionnaire item asking whether students perceived improvements in their academic performance when using smartphones for study purposes. A majority of respondents (215; 53.8%) indicated

that smartphones contributed to better academic results. This suggests that smartphones, when directed toward educational purposes, can positively support learning outcomes among adolescent girls.

This research is consistent with (Danal, Simon, & Osong, 2022), who highlighted the increasing availability of applications on the Play Store that support interactive and enjoyable learning processes, such as Google Classroom, Ipusnas, Zoom Meeting, Quiziz, Edmodo, and YouTube. These conditions demonstrate that the boundary between adolescents' curiosity and the knowledge they acquire depends largely on how frequently they access information and learning resources via smartphones. Therefore, barriers to knowledge acquisition are minimized, and smartphone use in learning contexts has the potential to increase adolescents' motivation and interest in studying.

The Relationship Between Self-Efficacy and Smartphone Use

In this study, self-efficacy showed a positive relationship with smartphone usage, indicating that the higher the level of self-efficacy, the higher the intensity of smartphone use. This finding is consistent with (Razzaq, Samiha, & Anshari, 2018), who reported that 45% of self-efficacy correlates with internet literacy. The level of internet literacy reflects adolescents' confidence in carrying out certain activities such as mobile learning and completing school assignments, which in turn contributes to improved academic performance.

According to the researcher, when adolescent girls demonstrate moderate self-efficacy, their higher intensity of smartphone use tends to be directed toward positive and constructive activities. These include seeking knowledge via search engines like Google, attending online tutoring sessions, listening to music while studying as a relaxation strategy, and completing school assignments efficiently. Such patterns suggest that increased smartphone usage, underpinned by sufficient self-efficacy, is likely to be oriented toward beneficial and purposeful outcomes rather than maladaptive behaviors.

This finding also aligns with (Abbas, Ashiq, & Abbas, 2020), who emphasized that self-efficacy as a psychological construct has received increasing empirical attention in the era of Society 5.0, particularly in the context of smartphone usage for mobile learning. The regular use of smartphones has the potential to enhance students' learning processes due to the availability of various applications that support academic access, communication, and even entertainment. These features have positioned smartphones as an integral part of adolescents' daily lives. Moreover, the adaptability of smartphones allows adolescents to expand their creativity, develop digital skills, and improve educational outcomes, particularly when usage is guided, structured, and supervised by responsible adults.

Despite these promising findings, this study is not without limitations. The use of a cross-sectional design restricts the ability to infer causality between self-efficacy and smartphone usage, meaning that while a positive relationship is observed, it cannot be concluded whether higher self-efficacy directly increases smartphone usage or vice versa. Additionally, reliance on self-reported data may introduce response bias, as participants might have overestimated or underestimated their smartphone usage and academic motivation. Another limitation lies in the study's focus solely on adolescent girls in Surabaya, which narrows the generalizability of the results to other adolescent populations in different cultural or geographical contexts. Future research would benefit from adopting longitudinal designs to track the development of self-efficacy and smartphone use over time, thereby offering stronger insights into causal relationships. Expanding the study population to include both genders and adolescents from diverse regions would also provide a broader understanding of the dynamics between self-efficacy and smartphone use. Such approaches could enrich current findings and guide more effective interventions to promote responsible digital engagement among adolescents.

CONCLUSION

The findings of this study indicate that most adolescent girls had self-efficacy in the moderate category, and the majority used their smartphones with high intensity. The analysis also revealed a statistically significant but weak positive correlation between self-efficacy and smartphone use ($r = 0.192$) among adolescent girls in the city of Surabaya. This result suggests that while self-efficacy is related to smartphone use, the strength of this association remains modest and should be interpreted with caution.

It is important for adolescent girls to develop and apply self-efficacy in their daily lives, while consistently using their smartphones for positive and beneficial purposes. By doing so, they can enhance their self-efficacy and avoid the potential negative impacts of excessive or unproductive smartphone use.It

is recommended that schools formulate policies to promote responsible and constructive smartphone use, for example by encouraging appropriate usage times and recommending applications that support education and personal development. Such initiatives can help prevent harmful smartphone behaviors and foster the growth of adolescents' self-efficacy.For future research, it is suggested to conduct further studies exploring innovative methods or learning strategies that may strengthen self-efficacy through positive smartphone use. This could provide broader insights into how adolescents can maximize the benefits of smartphones to support their knowledge, skills, and overall development.

REFERENCES

Abbas, N., Ashiq, U., & Abbas, A. (2020). Mediating Effect of It Tools Usage on the Relationship Between Academic Self-efficacy, Learning Attitude and Academic Performance. *Review of Applied Management and Social Sciences*, *3*(3), 377–389. https://doi.org/10.47067/ramss.v3i3.72

Agesti, L. P., Fitryasari, R., Armini, N. K. A., & Yusuf, A. (2019). Hubungan Smartphone Addiction dan Self Efficacy dengan Prestasi Akademik pada Remaja. *Psychiatry Nursing Journal (Jurnal Keperawatan Jiwa)*, *1*(1). https://repository.unair.ac.id/87968/

Alfaini, N., & Daulay, N. (2022). The Effect of Self-Efficacy and Well-Being on Smartphone Addiction. *Edukatif : Jurnal Ilmu Pendidikan*, *4*(5). https://edukatif.org/edukatif/article/view/3745

Andira, A. D., Usman, A. M., & Wowor, T. J. . (2022). Hubungan Penggunaan Gadget Terhadap Kualitas Tidur Pada Mahasiswa Keperawatan di Universitas Nasional. *Jurnal Promotif Preventif*, *4*(2), 51–56. https://doi.org/10.47650/jpp.v4i2.354

Badan Pusat Statistik. (2022). Statistik Telekomunikasi Indonesia 2022. Retrieved from Badan Pusat Statistik website: https://www.bps.go.id/id

Bandura, A. (1977). Self-efficacy : Toward a Unifying Theory of Behavioral Change. *Psychological Review*, *84*(2). https://educational-innovation.sydney.edu.au/news/pdfs/Bandura%201977.pdf

Bandura, A. (2018). *Social cognitive theory : An agentic perspective*. Elsevier. https://onlinelibrary.wiley.com/doi/chapter-epub/10.1002/9781394259069.refs

Danal, P. H., Simon, M. G., & Osong, G. A. (2022). Intensitas penggunaan smartphone dan performa akademik remaja: sebuah studi korelasi. *Jurnal Ilmiah Keperawatan Indonesia (JIKI)*, *6*(1), 70. https://doi.org/10.31000/jiki.v6i1.6873

Dinas Kependudukan dan Pencatatan Sipil Pemerintah Kota Surabaya. (2022). *Profil Perkembangan Kependudukan Kota Surabaya 2022*.

Fauzi, A., Apriliyanti, T. E., Khoir, M., & Hamu, A. H. (2020). Indikasi Kecanduan Smartphone pada Remaja di Surabaya. *Jurnal Ilmu Kesehatan*, *8*(2), 116. https://doi.org/10.32831/jik.v8i2.248

Janatin, M. (2015). *Hubungan antara Self Efficacy dengan Prestasi Belajar Siswa Kelas IV SD Se-Gugus II Kecamatan Bantul Tahun Ajaran 2014/2015*. Universitas Negeri Yogyakarta. https://eprints.uny.ac.id/23722/1/SKRIPSI_MULAFI%20JANATIN_11108241153_PGSD_FIP.pdf

Khulwia, K. (2018). *Pengaruh Penggunaan Gadget dan Lingkungan Belajar terhadap Hasil Belajar Siswa pada Mata Pelajaran IPS di Kelas VIII SMP Negeri 13 Malang*. Universitas Islam Negeri Maulana Malik Ibrahim Malang. https://etheses.uin-malang.ac.id/12992/1/14130036.pdf

Kleppang, A. L., Steigen, A. M., & Finbråten, H. S. (2023). Explaining variance in self-efficacy among adolescents: the association between mastery experiences, social support, and self-efficacy. *BMC Public Health*, *23*(1), 1665. https://doi.org/10.1186/s12889-023-16603-w

Kwak, M., Cho, H., & Kim, D. (2022). The Role of Motivation Systems, Anxiety, and Low Self-Control in Smartphone Addiction Among Smartphone-Based Social Networking Service (SNS) Users. *International Journal of Environmental Research and Public Health*. https://doi.org/10.3390/ijerph19116918

Lianto. (2019). Self-Efficacy : A Brief Literature Review. *Jurnal Manajemen Motivasi*, *15*. https://openjurnal.unmuhpnk.ac.id/index.php/jm_motivasi/article/view/1409

Lin, C.-Y., Imani, V., Broström, A., Nilsen, P., Fung, X. C. C., Griffiths, M. D., & Pakpour, A. H. (2019). Smartphone Application-Based Addiction Among Iranian Adolescents: A Psychometric Study. *International Journal of Mental Health and Addiction*, *17*(4), 765–780. https://doi.org/10.1007/s11469-018-0026-2

Lubis, A. M., Junaidi, M., Damayanti, E., & Setyoko. (2022). Analisis Pemanfaatan Smartphone bagi Siswa Sekolah Menengah di Kota Langsa. *Paedagoria : Jurnal Kajian, Penelitian Dan Pengembangan*

Kependidikan, *13*(2). https://journal.ummat.ac.id/index.php/paedagoria/article/view/9362

Mahardika, I. K., Alega, S., Vira, A. A., & Hilmi, N. C. (2024). Perkembangan Anak Usia Remaja dalam Aspek Perilaku dan Emosional. *Jurnal Ilmiah Wahana Pendidikan*, *10*(12). https://doi.org/10.5281/zenodo.12526635

Mufidah, E. F., Pravesti, C. A., & Farid, D. A. M. (2022). Urgensi Efikasi Diri : Tinjauan Teori Bandura. *Seminar Dan Lokakarya Nasional Bimbingan Dan Konseling Tema "Penguatan Pelayanan Bimbingan Dan Konseling Dalam Kurikulum Merdeka."* https://ojs.abkinjatim.org/index.php/ojspdabkin/article/view/148

Park, Y., & Lee, S. (2022). Gender differences in smartphone addiction and depression among Korean adolescents: Focusing on the internal mechanisms of attention deficit and self-control. *Computers in Human Behavior*, *136*, 107400. https://doi.org/10.1016/j.chb.2022.107400

Razzaq, A., Samiha, Y. T., & Anshari, M. (2018). Smartphone Habits and Behaviors in Supporting Students Self-Efficacy. *International Journal of Emerging Technologies in Learning (IJET)*, *13*(02), 94. https://doi.org/10.3991/ijet.v13i02.7685

Retalia, R., Soesilo, T. D., & Irawan, S. (2022). Pengaruh Penggunaan Smartphone Terhadap Interaksi Sosial Remaja. *Scholaria: Jurnal Pendidikan Dan Kebudayaan*, *12*(2), 139–149. https://doi.org/10.24246/j.js.2022.v12.i2.p139-149

Rudolf, R., & Kim, N. (2024). Smartphone use, gender, and adolescent mental health: Longitudinal evidence from South Korea. *SSM - Population Health*, *28*, 101722. https://doi.org/10.1016/j.ssmph.2024.101722

Rysbayeva, G., Berdaliyeva, A., Kuralbayeva, A., Baiseitova, N., Uspabayeva, A., Zhapparbergenova, E., & Poshayeva, G. (2022). Students' Attitudes Towards Mobile Learning. *International Journal of Engineering Pedagogy (Ijep)*. https://doi.org/10.3991/ijep.v12i2.29325

Sariyani, M. D., Ariyanti, K. S., Duarsa, D. P., & Mutmainah, N. F. (2022). The Relationship Between Self Efficacy and Mother's Experience in Assisting Adolescents Using Gadgets. *Nursing and Health Sciences Journal (NHSJ)*, *2*(3), 274–279. https://doi.org/10.53713/nhs.v2i3.152

Schunk, D. H., & DiBenedetto, M. K. (2021). *Self-efficacy and human motivation*. https://doi.org/10.1016/bs.adms.2020.10.001

Suryana, E., Hasdikurn, A. I., Harmayanti, A. A., & Harto, K. (2022). Perkembangan Remaja Awal, Menengah dan Implikasinya terhadap Pendidikan. *Jurnal Ilmiah Mandala Education (JIME)*, *8*(3). https://ejournal.mandalanursa.org/index.php/JIME/article/view/3494