

The Correlation Between SRL and Parenting Style With Smartphone Addiction Towards Adolescent During the Pandemic

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Abstract: The COVID-19 pandemic had contributed to the accelerated use of e-learning. During the COVID-19, most schools used digital platforms to support learning instruction. Unfortunately, a higher amount of time spent on online media may be problematic because these platforms can be addictive. Online media platforms promote constant scrolling and do not have a definite “stop point,” which is why they can lead individuals to spend several hours on using these platforms. This situation could turn smartphone addiction into one of the negative impacts of distance learning during the COVID-19 pandemic. The present study investigates the factors affecting the adverse impact of prolonged e-learning use during the COVID-19 pandemic, specifically, the effects of self-regulated learning (SLR) on e-learning. This study used a systematic literature review by selecting related articles using keywords: smartphone addiction, self-regulated learning, parenting style, and COVID-19. Studies have revealed the importance of SLR in the 21st century. Parenting style affects SLR. Promoting SLR helps students avoid risky behaviors and demonstrates how parenting styles have changed.

1 INTRODUCTION

Since early 2020, global conditions have been hit by COVID-19, and the Indonesian government announced a lockdown last March. People are not allowed to do activities outside their homes. This approach was also applied to students from kindergarten to university. Therefore, to overcome this problem, Indonesia's Ministry of Education issued learning materials from home. This situation increases Internet use and increases the potential for Internet Addiction during the COVID-19 pandemic, especially among teenagers who use the internet the most.

However, spending more time on online media may be problematic because such platforms can be addictive. Research by Dong et al. (2020) revealed excessive internet use by children and adolescents during COVID-19. In addition, smartphones and the Internet can also hinder their intelligence if not used wisely. The use of a gadget should be avoided early because it has a more negative impact than positive impacts.

One of those negative impacts has been found in the city of Semarang where 8 students were addicted to online games on smartphones, and in Solo, where dozens of students were treated at the Dr. Arif Zainuddin Hospital. In Palembang City, 3 students are not only addicted to online games and pornographic videos (Widayat, 2015). This is because smartphones also function to produce pleasure, relieve pain, and reduce feelings of stress or boredom; however, failing to control or limit their use has harmful consequences (Suyono & Handarini, 2016).

When students spend much time on their smartphones, they are likely to be considered problematic smartphone users, which, in turn, will affect their academic performance negatively (Winskel et al., 2019). In a previous survey conducted by the Ministry of Education and Culture, the impact of internet or smartphone addiction was found to be that children become distracted during the learning process. They tend to spend time on things they like. Therefore, online learning is not optimal. Based on the results of discussions with several speakers, the success of PJJ (online learning)

was found to be largely determined by the level of support provided to the children.

Several studies have found that family environmental factors play an important role in predicting smartphone addiction. Specifically, a positive parenting style characterized by affection, rational explanation, and parental supervision can reduce smartphone addiction (Bae, 2015). Meanwhile, negative parenting styles characterized by parental rejection and restriction may increase adolescents' reliance on smartphones (Bae, 2015; Lian et al., 2016).

Chiu (2014) stated that smartphone addiction can occur because it is a way to transfer stress and lack of self-regulation. Thus, low self-regulated learning abilities can lead to smartphone addiction. However, with self-regulated learning, academic stress and smartphone addiction can be reduced. Students who have good SRL are shown by their ability to manage their regular study habits and apply their learning strategies to learning at school to reduce their smartphone addiction (Jaleel & Premachandran, 2016).

Woolfolk in (Muttaqin, 2018: 6) argues that self-regulation is a process carried out by a person to achieve his goals by activating and maintaining thoughts, behavior, and emotions. Self-regulation is an individual's effort to be able to manage emotions, actions, and feelings to be able to stay focused and consistent so that the goals to be achieved can be fulfilled. Taylor's statement in (Luh & Istriyanti, 2014) explains that self-regulation makes it easy for someone to be as easy as in their future.

Indonesia has supported the same learning system as other developed countries in Asia and Europe. Technology-literate teachers are the main target for achieving 21st-century learning innovations. The internet is used for education to obtain a long-term positive impact on its use, but there is also a need for positive efforts to build a literate internet culture.

2 THEORETICAL OVERVIEW

This theoretical overview begins with an explanation of the definitional smartphone addiction. Furthermore, it is followed by explaining the difference of parenting style. Subsequently, the theoretical definitions of self-regulated learning and the characteristic of adolescents are explained.

2.1 The Definition of Smartphone Addiction

Smartphone addiction is the loss of the ability to properly regulate smartphone use, resulting in negative consequences in daily life. Prior studies showed that improper use of smartphone can lead to mental health symptoms and physical problems such as depression, preoccupation, and mood regulation under virtual space activities.

Kwan and Leung (2015) stated that the term smartphone addiction is the behavior of attachment or addiction to smartphones that allows social problems such as disturbances in daily life, positive anticipation, withdrawal, cyber-oriented relationships, excessive use, and increased tolerance smartphone use.

2.2 The Definition of Parenting Style

Global parenting styles are usually studied according to the model of Baumrind's parenting styles, which describe parents' influence according to the two axes of "control" (i.e., regulating child's behavior according to social norms through demandingness, limit setting, and guidance) and "acceptance" (i.e., warmth, responsiveness, and emotional involvement in child's life) (Baumrind, 1967) or the two corresponding axes of "demandingness" and "responsiveness" (Maccoby & Martin, 1983). The main aspects, which distinguish between these styles of parenting refer to the extent to which the parent sets limits and directions, reasons and justifies demands and expectations, uses control and power, and provides emotional support (Yaffe, 2013).

This model allows theoreticians to describe three global categories of parenting styles: authoritative, authoritarian, and permissive (Baumrind, 1971). An authoritative parent combines consistent discipline and limit-setting, warmth, emotional support, reasoning, and negotiation. She tends to educate her offspring rationally (Baumrind, 1968). In this framework, during adolescence, a pattern of granting "psychological autonomy" emerges, which is expressed by the extent to which the parent allows and encourages the development of self-opinions and personality (Steinberg, 1990).

The authoritarian parenting style is characterized by high levels of control and a lack of warmth and emotional support. To carry out her doctrine, the authoritarian parent will punish and use any coercive means at her disposal as long as the child's behavior

contradicts her will and beliefs (Baumrind, 1978). Finally, the permissive parenting style is a pattern consisting of a lack of control along with a high degree of warmth and emotional support.

In contrast to the former types of parents, permissive parents allow children to control and regulate their own behavior by themselves as much as possible and avoid punishment. The parent may clarify the rules, but he or she encourages the negotiation of decisions concerning the child (Baumrind, 1978).

In general, the parenting style of actual parents does not belong to a single type of parenting but is a mixture of the different parenting styles described here, which can therefore be considered as three non-orthogonal components of parenting.

2.3 The Definition of Self-Regulated Learning

According to the constructivist model of learning, learners build the knowledge that they acquire. When this process is actively and consciously driven by them, it is called self-regulated learning (SRL). In this process, “the learners set goals for their learning and then attempt to monitor, regulate, and control their cognition, motivation, and behaviour, guided and constrained by their goals and the contextual features in their environment” (Pintrich, 2000). Hence, the construct of SRL describes the triadic interaction between personal (beliefs), behavioral (actions), and environmental influences (Zimmerman, 1989), when typical beliefs are self-efficacy beliefs or motivational goals (Pajares, 2008), a typical emotion is test anxiety, and typical actions are cognitive processes and self-regulatory processes relying on metacognition (self-observation, self-assessment, and self-reaction). SRL has been noted as a factor leading to academic achievement in addition to intellectual capacity (Credé & Phillips, 2011). From a developmental point of view, the ability to self-regulate in learning appears not to be a native skill but is rather acquired by the child through social interaction with peers, grown-ups, and the environment (Pressley, 1995). In this process, the parents play a crucial role (Schunk & Zimmerman, 1997).

3 METHOD

This study used a systematic literature review. A systematic literature review can be defined as a systematic method for collecting and synthesizing

the results of previous research that can serve as a basis for knowledge development, create guidelines for policy and practice, provide evidence of effects, and, if done well, can generate new ideas and direction for specific fields. The method was chosen to collect research from abroad and in Indonesia that have been carrying out smartphone addiction, self-regulated learning, parenting style, and learning during the pandemic. The results of this research will also be synthesized together with the research results on the implementation of SRL, parenting style, and learning during the pandemic.

This study began with the authors' direct observation as a guidance and counseling teacher in the school environment during the pandemic. Many cases have arisen in schools, especially junior high school teenagers, who tend to have a phone addiction since the pandemic. After consulting with several parents and sharing the data with other schools, the most frequent cause of this, is the lack of supervision from parents during the pandemic. They must spare their time to accompany their children while working. This is a new challenge, where parents usually focus on work and children are with teachers at school. This lack of supervision can be a bad habit. The child's SRL also affects this bad habit. This direct observation was strengthened by exploring the problem of student self-regulation, and implementing parenting styles by the parents during the pandemic. News searches related to smartphone addiction during the pandemic were obtained from open-access sources.

The data was collected by Google Scholar searching. The research was conducted using the keywords “smartphone addiction”, “self-regulated learning”, and “parenting style”. Smartphone addiction is part of internet problematic use. The researcher expanded the search for research with the keyword “internet problematic use” as well, the aim of the “internet problematic use” keyword search was to determine the dynamics of students when using smartphones since the beginning of the pandemic.

This study limits the scientific journals and articles from 2012 to 2022. According to the research topic, the number of scientific journals was reduced to 30. The journal comprises 20 journals from foreign authors and 10 journals from Indonesian authors. The scientific journals used in this research come from quantitative research, qualitative research, and literature review.

4 RESULT AND DISCUSSION

The discussion of the findings and results in this chapter begins with identifying smartphone addiction in Indonesia. Subsequently, Furthermore, looking at the effect of self-regulated learning abilities on adolescents with smartphone addition. This section will end with an overview of parenting

styles as an alternative to anticipating smartphone addiction in adolescents.

4.1 Smartphone Addiction Diagnosis

A study has explored the diagnosis that can be used to see someone affected by smartphone addiction (Montag, 2017). The following is explained in table 1.

Table 1. The Diagnosis of Smartphone Addiction.

Criteria	Diagnostic Criteria of Smartphone Addiction	Dependency Type		
		Smartphone Addict	Internet Addict	Internet Gaming Disorder
Preoccupation	Interest in smartphone users all day long	√	√	√
Impulsivity	Repeated failures to hold down using a smartphone	√	√	
Tolerance	Increasing the duration of using a smartphone to achieve satisfaction		√	√
Withdrawal	Manifested in a change in mood, anxiety, and instability, after a while without a smartphone	√	√	√
Loss of Control	Long-term and intense smartphone use (loss of self-control)	√	√	√
Reduce/Stop	Failed to reduce smartphone use	√	√	√
Excessive use	Excessive use or spending time on a smartphone	√	√	√
Effort to access	Excessive effort to continue using the smartphone even in inadequate circumstances	√	√	√
Continue Despite	Continue to use smartphones excessively even though they know it will cause psychological and physical problems	√	√	√
Escape	Using a smartphone to divert negative moods		√	√
Give up other activity	Losing interest in former hobbies, only continuing to use smartphones			√
Deception	Tricking or deceiving family members or loved ones to spend time using smartphones			√

4.2 The Condition of Smartphone Addiction in Indonesia

In a survey conducted by the Indonesian Internet Service Providers Association (APJII), the Internet penetration rate in Indonesia grew by 77.2% from a total of 272,682,600 Indonesians connected to the internet in 2021, with adolescents aged range 13-18 years are part of Indonesia's most significant internet users. Most 51.4% of teens experience low levels of social media addiction. Moreover, almost half of the participants (48.6%) experienced high levels of addiction. In addition, internet addiction in adults increased from 3% before the pandemic to 14.4% during the pandemic.

Dong's research (2020) found an increase in the use of the Internet for recreation among Addictive Internet Users (AIU), Problematic Internet Users (PIU), and normal Internet users (NIU) during the COVID-19 pandemic. In line with Prakash et al., (2020), who found that 143 (74.5%) students had internet addiction. Research results from Lin (2020) also found a prevalence of 254 (24.4%) junior high school students with internet addiction during the COVID-19 pandemic. Fernandes' research (2020) stated that the COVID-19 outbreak had a significant impact on adolescent internet use.

It was found in Prakash et al., (2020), that 148 (75.9%) respondents who had internet addiction were included in the 14-25 years age group. The results of research from Islam et al., (2020) found that the average score of the Internet Disorder Scale-Short Form (IDS9-SF) of young adults is higher than that of parents. Fernandes' research (2020) stated that the COVID-19 outbreak had a significant impact on adolescent internet use. Young people tend to develop internet addiction more easily than older people. This is also because younger people use the Internet more frequently.

4.3 The Condition of Smartphone Addiction in Indonesia

Self-regulated learning is correlated with adolescents' learning levels and academic results (Fuentes et al., 2019). The lower the students' self-regulated learning is, the more they have smartphone addiction (Kim et al., 2019). Helping students with their self-regulated learning skills is an effective way to resolve smartphone addiction (Gökçearsan et al., 2016). Self-regulated learning predicted Problematic Smartphone Use (Zeyang et al., 2019). People's inability to self-regulate their learning might

increase their smartphone usage (Penjira et al., 2016).

The inability to self-regulate learning is likely an indication of internet/mobile phone use (Soror et al., 2012). When students have low self-regulation, this may negatively predict problematic smartphone use, as found in European samples (Gökçearsan et al., 2016). The findings of research from Ali (2020) confirm previous research that when students have higher levels of addiction, this is an indicator of having a lower level of self-regulated learning, as well as a low level of ability when they deal with their academics (Lee et al., 2015). The more students use their smartphones, the more to are disengaged from class activities (Gökçearsan et al., 2016).

Mahapatra (2019) found that self-regulated learning led to less academic procrastination and smartphone addiction. Students with high self-regulation can control their internet use to limit their academic tasks (Simanjuntak, 2017). Another study by Azizah and Muslikah (2021) showed that smartphone addiction is the highest indicator is overuse, while the lowest indicator is withdrawal. Overuse is the uncontrolled use of a smartphone. The high overuse of students reflects the high intensity of smartphone use. This can happen because of the implementation of learning during a pandemic that requires students to continue using smartphones.

Azizah and Muslikah (2021) found that in the smartphone addiction variable, the highest indicator is overuse, while the lowest indicator is withdrawal. Overuse is the uncontrolled use of a smartphone. The high overuse of students reflects the high intensity of smartphone use. This can happen because of the implementation of learning during a pandemic that requires students to continue using smartphones. In the descriptive analysis of self-regulation variables, self-regulation skills are in the low category. The highest indicator was self-evaluation, and the lowest indicator was self-reaction.

4.4 The Condition of Smartphone Addiction in Indonesia

The relationship between parenting style and smartphone addiction was examined in adolescents. These studies found that a democratic or authoritative parenting style was associated with low smartphone addiction levels (Bae, 2015; Amalia & Hamid, 2020). In another study, Lee et al. (2018) also found that strict parental control or an authoritarian parenting style was associated with

higher levels of smartphone addiction (Lee et al., 2018). Research on smartphone addiction that Kwan and Leung (2015) conducted on college students did not directly link parenting style with smartphone addiction, but first connected parenting style with self-regulation, then linked them with smartphone addiction. Because high school students in Indonesia commonly depend on their parents, both emotionally and economically (Alfikaila, 2017), the parenting style applied to students relates to various aspects of their lives.

Kumagiz and Gündüz (2016) found that the average value of smartphone addiction among students was based on the attitudes of their mothers. The smartphone addiction rates of those who considered their mothers to be authoritarian and protective were higher than those who considered their mother's attitudes as democratic. This result is significant because it emphasizes the importance of the mother's attitude toward children's behavior.

Nur et al., (2019) also found that students who perceive themselves as having permissive parenting have significantly higher average smartphone addictions than children who are inclined toward authoritarian and democratic parenting. Students who perceived themselves as having parents with authoritarian parenting had a higher average smartphone addiction rate than children with democratic parenting, although this difference was not significant.

From the above description, it can be concluded that parenting styles are closely related to smartphone addiction. Parenting styles influence children's behavior and problems. Family is the primary parenting style in individual development, especially in Indonesia, which still adheres to Eastern customs.

5 CONCLUSION

Based on the literature review, it can be concluded that there has been an increase in Internet use by students during the COVID-19 pandemic. Increased internet use can increase students' internet addiction in the future. In PJJ, teachers cannot monitor students directly, so internet use is not controlled among students.

To overcome the negative effects of playing with smartphones, parents must control their smartphone use. Parents are advised to inform their children of how to use such gadgets positively and to explain the possible negative impacts of smartphones. Parents should disallow their children from playing

on their smartphones alone so that their children's activities can be monitored. Lastly, it is recommended that parents build good interactions with their children.

The results revealed important information: If more parents were addicted to smartphone then more adolescents were addicted to smartphone too. In addition, the more parents were addicted to smartphone use, the more likely adolescents perceived a negative parenting style. Negative parenting styles can increase the degree of Smartphone dependence, whereas positive parenting styles can reduce Smartphone dependence (Bae in Lian et al., 2016).

SRL among adolescents must be improved because SRL is one of the competencies that must be improved in the 21st century. Self-regulation is also a skill that can be learned and taught. The low self-regulation ability of adolescents can also be improved through training. Fatimah and Fasikhah (2013) conducted self-regulation training for 54 students. The students who received self-regulation training had better academic achievement than those who did not.

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REFERENCES

- Alfikaila (2017). Keterlibatan orang tua dalam pendidikan mahasiswa di perguruan tinggi. *INQUIRY Jurnal Ilmiah Psikologi*, 8(1), 42-54.
- Amalia, R. F., & Hamid, A. Y. S. (2020). Adiksi smartphone, kesehatan mental anak, dan peranan pola asuh. *Jurnal Ilmu Keperawatan Jiwa*, 3(2), 221-240.
- APJII (2022). *Infografis penetrasi & perilaku pengguna internet Indonesia 2017*. Retrieved from: https://apjii.or.id/berita/detail/apjii-di-indonesia-digital-outlook-2022_857
- Azizah, M., & Muslikah, M. (2021). Hubungan antara manajemen waktu dan regulasi diri dengan kecanduan smartphone. *Jurnal Ilmiah Bimbingan Konseling Undiksha*, 12(1).
- Bae, S., M. (2015). The relationships between perceived parenting style, learning motivation, friendship

- satisfaction, and the addictive use of smartphones with elementary school students of South Korea: Using multivariate latent growth modeling. *School Psychology International*, 36(5), 513-531. <https://doi.org/10.1177/0143034315604017>
- Baumrind, D. (1967). Child care practices anteceding three patterns of preschool behavior. *Genetic Psychology Monographs*, 75, 43-88.
- Baumrind, D. (1971). Current patterns of parental authority. *Developmental Psychology Monographs*, 4(1), 1-103.
- Baumrind, D. (1978). Parental disciplinary patterns social competence in children. *Youth & Society*, 9(3), 239-276.
- Chiu, S. I. (2014). The relationship between life stress and smartphone addiction on taiwanese university student: A mediation model of learning Self-Efficacy and Social Self-Efficacy. *ResearchGate*, 49-57.
- Credé, M., & Phillips, L. A. (2011). A meta-analytic review of the Motivated Strategies for Learning Questionnaire. *Learning and Individual Differences*, 21, 337-346.
- Dong, H., Yang, F., Lu, X., & Hao, W. (2020). Internet addiction and related psychological factors among children and adolescents in China during the coronavirus disease 2019 (COVID-19) epidemic. *Frontiers in psychiatry*, 11, 00751.
- Fatimah, S., & Fasikhah, S. S. (2013). Self-Regulated Learning (SRL) Dalam Meningkatkan Prestasi Akademik Pada Mahasiswa. *Jurnal Ilmiah Psikologi Terapan*, 1(1), 145-155.
- Fernandes, B., Biswas, U. N., Mansukhani, R. T., Casarín, A. V., & Essau, C. A. (2020). The impact of COVID-19 lockdown on internet use and escapism in adolescents. *Revista de psicología clínica con niños y adolescentes*, 7(3), 59-65.
- Fuentes, M., García-Ros, R., Perez-González, F. & Sancerni, D. (2019). Effects of Parenting Styles on Self-Regulated Learning and Academic Stress in Spanish Adolescents. *Int. J. Environ. Res. Public Health*, 16, 2778; doi:10.3390/ijerph16152778.
- Gökçearslan, Ş., Mumcu, F. K., Haşlamam, T., & Çevik, Y. D. (2016). Modelling smartphone addiction: The role of smartphone usage, selfregulation, general self-efficacy and cyberloafing in university students. *Computers in Human Behavior*, 63, 639-649.
- Islam, M. S., Sujana, M. S. H., Tasnim, R., Ferdous, M. Z., Masud, J. H. B., Kundu, S., ... & Griffiths, M. D. (2020). Problematic internet use among young and adult population in Bangladesh: Correlates with lifestyle and online activities during the COVID-19 pandemic. *Addictive behaviors reports*, 12, 100311.
- Jaleel, S., & Premachandran, P. (2016). A Study on the Metacognitive Awareness of Secondary. *Universal Journal of Educational Research*, 165-172.
- Kim, B., Lee, S. W., Hong, H., & Han, K. (2019). Automated time manager: effectiveness of self-regulation on time management through a smartphone application. *IEEE Access*, 7, 90891-90903.
- Kumagiz, H., & Gunduz, Y. (2016). Relationship between psychological well-being and smartphone addiction of university students. *International Journal of Higher Education*. www.sciedupress.com/ijhe
- Kwan, H. C. & Leung, M. T. (2015). The path model of parenting style, attachment style, self-regulation and Smartphone addiction. *Applied Psychology - Proceedings Of The 2015 Asian Congress (Acap 2015)*.
- Lee, J., Cho, B., Kim, Y., & Noh, J. (2015). Smartphone addiction in university students and its implication for learning. In *Emerging issues in smart learning*. (pp. 297-305). Berlin, Heidelberg: Springer.
- Lee, E. J., & Ogbolu, Y. (2018). Does parental control work with smartphone addiction. *Journal of Addictions Nursing*, 29(2), 128-138
- Lian, L., You, X., Huang, J., & Yang, R. (2016). Who overuses Smartphones? Roles of virtues and parenting style in Smartphone addiction among Chinese college students. *Computers in Human Behavior*, 65, 92-99. <https://doi.org/10.1016/j.chb.2016.08.027>
- Lin, M. P. (2020). Prevalence of internet addiction during the COVID-19 outbreak and its risk factors among junior high school students in Taiwan. *International journal of environmental research and public health*, 17(22), 8547.
- Lu, H. D., & Zhang, L. (2011). Research progress and trend of self -regulated learning. *Journal of Northeast Normal University*, 6, 145-149.
- Luh, N., & Istriyanti, A. (2014). Hubungan Antara Regulasi Diri dan Perencanaan Karir pada Remaja Putri Bali. *Jurnal Psikologi Udayana*, 1(2), 301-310.
- Maccoby, E. E., & Martin, J. A. (1983). Socialization in the context of the family: Parent-child interaction. In P. H. Mussen (Series Ed.) E. M. Hetherington (Vol Ed.), *Handbook of child psychology: Volume 4. Socialization, personality, and social Development* (4th ed., pp. 1-101). Wiley.
- Mahapatra, S. (2019). Smartphone addiction and associated consequences: Role of loneliness and self-regulation. *Behaviour & Information Technology*, 38(8), 833-844. <http://dx.doi.org/10.1080/0144929X.2018.1560499>.
- Duke, É., & Montag, C. (2017). Smartphone addiction, daily interruptions and self-reported productivity. *Addictive behaviors reports*, 6, 90-95.
- Muttaqin, T. (2018). Determinants of unequal access to and quality of education in Indonesia. *Jurnal Perencanaan Pembangunan: The Indonesian Journal of Development Planning*, 2(1), 1-23.
- Nur, H., Misrawati, D., Utami, S. (2019). What is the influence of smartphone addiction on student's psychological well-being?. *Southeast Asia Psychology Journal*, 9, 122-137.
- Pajares, F. (2008). Motivational role of self-efficacy beliefs in selfregulated learning. In D. H. Schunk & B. J. Zimmerman (Eds.), *Motivation and self-regulated learning: Theory, research, and application* (pp. 111-139). Routledge.

- Penjira, K., Felicito, F., Ruangrit, R. & Penjuree, K. (2016). An empirical study on the impact of self-regulation and compulsivity towards smartphone addiction of university students. *13th International Conference on Cognition and Exploratory Learning in Digital Age (CELDA 2016)*.
- Pintrich, P. R. (2000). The role of goal orientation in self-regulated learning. In M. Boekaerts, P. R. Pintrich, & M. Zeidner (Eds.), *Handbook of self-regulation: Theory, research, and applications* (pp. 451–502). Academic Press.
- Prakash, S., Yadav, J. S., & Singh, T. B. (2020). An online cross-sectional study to assess the prevalence of internet addiction among people staying at their home during lockdown due to COVID-19. *Int J Indian Psychol*, 8(3), 424-432.
- Pressley, M. (1995). More about the development of self-regulation: Complex, long-term, and thoroughly social. *Educational Psychologist*, 30(4), 207–212.
- Schunk, D. H., & Zimmerman, B. J. (1997). Social origins of self-regulatory competence. *Educational Psychologist*, 32(4), 195–20.
- Simanjuntak, E. (2017). First Year Challenge: The Role of Self-Regulated Learning to Prevent Internet Addiction among First-Year University Students. *3rd Asean Conference on Psychology, Counseling and Humanities (AC-PCH 2017) Smartphone users in Egypt 2013-2019*. n.d. <https://www.statista.com/statistics/467747/forecast-of-smartphone-users-in-egypt/467747/forecast-of-smartphone-users-in-egypt/>
- Soror, A. A., Steelman, Z. R., & Limayem, M. (2012). Discipline yourself before life disciplines you: Deficient self-regulation and mobile phone unregulated use. In: *System Science (HICSS), 2012 45th Hawaii International Conference on* (pp. 849–858). New Jersey: IEEE
- Steinberg, L. G. (1990). Autonomy, conflict, and harmony in the family relationship. In S. Feldman & G. Elliot (Eds.), *At the threshold: The developing adolescent* (pp. 255–276). Harvard University Press.
- Suyono, D., & Handarini, D. M. (2016). Keefektifan teknik relaksasi untuk menurunkan stres akademik siswa SMA. *Jurnal Pendidikan Humaniora*, 4(2), 115-120.
- Widayat, D. P. (2015). Keefektifan Peer Support untuk Meningkatkan Self Discipline Siswa SMP. *Jurnal Konseling Indonesia*, 1-9.
- Winkel, H., Kim, T. H., Kardash, L., & Belic, I. (2019). Smartphone use and study behavior: A Korean and Australian comparison. *Heliyon*, 5(7).
- Yaffe, Y. (2013). “Parental authority”: What do we know about the construct?. *International Journal of Educational Research and Development*, 2(9), 211–219.
- Zeyang, Y., Kathryn, A. & Mark, A. (2019). An Exploration of Problematic Smartphone Use among Chinese University Students: Associations with Academic Anxiety, Academic Procrastination, Self-Regulation and Subjective Wellbeing. *Int J Ment Health* *Addiction*, 17:596–614 <https://doi.org/10.1007/s11469-018-9961-1>
- Zimmerman, B. J. (1989). A social cognitive view of self-regulated academic learning. *Journal of Educational Psychology*, 81(3), 329–339. <https://doi.org/10.1037/0022-0663.81.3.329>