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The Use of Social Media by Urban Adolescents in Java: Descriptive Study

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ABSTRACT

The use of social media has become inseparable in daily life, as is the case for adolescents specifically in urban areas. Therefore, this research is planned to be carried out in the context of teenage students, especially in Jakarta as an urban area. Adolescents who are the subjects in this study complete a survey that provides data on ecological contexts related to themselves, include with age, gender and education level as part of demographic potential data. The analysis in this study was conducted using descriptive statistics. This research was conducted in August to December 2019 in several secondary schools in several cities in Java. Research instruments include: informed consent, measurement scale which is part of the assessment regarding the use of social media by adolescents who are in the age range of 11 to 19 years. The research instrument used is the Social Networking Activity Intensity Scale, which has been tested for reliability and validity. The number of samples included in the analysis was 2038 participants. The findings of the study that there are differences in the use of social media in adolescents, girls more often use social media than boys. However, there is no difference in the use of social media by junior and senior high school students.

Keywords: use of social media, Social Networking Activity Intensity Scale, adolescence in Java Island

1. INTRODUCTION

Adolescence are stages of development in humans after childhood and into adulthood [1]. During adolescence there are a number of changes both in terms of biological, psychological, and social, such as adolescent body shape associated with changes in reproductive hormones. Adolescent biological changes are also related to developments in areas of the brain that affect their thinking function. Changes in the brain area of adolescents enable adolescents to think more complex.

Adolescence is a transition from childhood to adulthood which includes major changes in physical, cognitive, and psychosocial aspects [1]. According to Sarwono [2] said that adolescence is a period of development from childhood to adulthood, which is followed by biological, cognitive, and socioemotional changes. Sarwono [2] also said that at this stage adolescence really need friends. At this stage adolescents have a narcistic tendency, which is to love themselves by liking friends who have the same qualities as him. Sarwono [2] added that at this stage the adolescence is in a state of confusion because he does not know how to behave. At this stage teens are very happy if they have many friends and are in a peer group or group. At this stage

adolescents also have a tendency to have the same nature and appearance with peer groups. Still according to Gestsdottir and Lerner [3] that this makes teens often use something or follow activities that are more trends so as not to be old-fashioned or out of date.

According to Papalia and Martorell [1], explained that adolescence is a period of developmental transition between childhood and adulthood which contains major physical, cognitive and psychosocial changes. Gunarsa [4], say that adolescence is a transition period between childhood and adulthood which involves physical, cognitive, and psychosocial changes.

The results of the 2010 population census showed that Indonesia's population numbered 237.6 million people, consisting of 119.6 million men and 118.0 million women. Of these, around 81.4 million people or around 34.26 percent of them were children under 18 years of age. In 2011 the population of Indonesia aged 0-17 reached 82.6 million or 33.9 percent of the total population. This shows that one third of Indonesia's population is children to adolescents [5]. Because of this data base, research with a sample of adolescents is important.



Prayudhi [6] states that online media or social media is one type of mass media that is popular and is unique. The specificity of online media or social media lies in the necessity of having an information technology network using a computer or smartphone. Nowadays most people use smartphones to access the internet. To get fast and upto-date information, now it is enough to use the internet. Social media users can easily participate with each other, share and create content which includes blogs, social networks, wikis, forums and the virtual world [7]

Through the internet, teenagers can find information from all fields of science including science that contains negative elements. When the internet as a form of information and communication technology is used to satisfy human urges and basic needs, namely [8]. Other negative elements found on the internet are cyberbullying, internet addiction, health risks, fraud and violence that can distort the development of adolescents [9]. Teenagers who become cyberbullying do it with the aim of joking or revenge and because he can hide his own identity [10]. In addition to the negative impacts, there are also positive impacts from the use of the internet, which can facilitate the correspondence (e-mail), exchange messages, call, get information and send information and can be a means of entertainment [11].

The use of social media in boys and girls is not the same. In general, men are very systematic and women are very empathetic. Adolescent girls interact more in social media to mingle with others, but men use social media aimed at themselves such as channeling hobbies or playing games. Teenage girls communicate a lot, spend time writing messages or emails, to contact friends or family and make social media a means of entertainment, while men use social media less. The frequency of use of social media on adolescent girls is done while at home and at any time if the message is replied, in tutoring and other public places. In men, the frequency of use of social media is during bedtime or during school [12-13].

Teenagers who use the internet and social media a lot are not satisfied with themselves, have problems such as being sad easily, often feeling bored and not feeling happiness. This can result in adverse effects for adolescents, such as anxiety, depression, decreased physical and mental health, interpersonal relationships and decreased performance [14].

Reviewing the findings from previous research, the researcher examines a deeper understanding in order to obtain a description of the use of social media in adolescents

who have the opportunity to have their own social problems. This study attempts to answer the following research questions: How is the psychometric quality measurement of social media use evaluated in terms of the demographic potential of urban adolescents?

1.1 Related Work

Before explaining about social media, it will be explained in advance about online media in general. Ramadhani [15] said online media is a general designation for a form of media based on telecommunications and multimedia. Inside there are portals, website, radio-online, TV-online, online press, mail-online, with their respective characteristics in accordance with the facilities that allow users to use them. Therefore, news sites are a sub-system of online media. Online media are defined as products of technologymediated communication that are shared with digital computers [16]. Another definition of online media is media which consists of a combination of various elements [17]. As time goes by, technology has become more advanced from analog technology to digital one. This has impact on media developments then it appears new media [18]. The internet is a form of online media. The internet has its own technology, how to use, scope of service, content and image. The internet is not owned, controlled or managed by a single body but is an internationally connected computer network that operates according to a mutually agreed protocol. So it can be concluded that the understanding of online media is a tool to convey information or ideas or ideas to the public through a line or line known as a wireless network.

A number of organizations, especially telecommunications providers and agencies play a role in internet operations [19]. The internet offers several applications that are capable of supporting a variety of human needs, both for the military, academia, the mass media, and business circles. Ramadhani [15] suggests several basic applications offered by the internet, namely electronic mail (e-mail), file transfers, remote logins, internet relay chat (IRC), and worldwide websites (www).

The use of social media mostly contains messages that provide a symbolic environment for everyone to interact and understand things that happen in the world [16]. Growing up in the digital age, today's teens are internet users and especially the mass media that are substantial. On average each individual spends time using social media is increasing from year to year. In America, nearly two-thirds of young adults aged 18-29 years use more than one social media [20]. In a survey conducted by the Pew Research Center, 76% of adolescents aged 13-17 said that they used



social media [21]. In the other hand, Lenhart [22] said that 24% of teens go online almost constantly, facilitated by the widespread availability of smartphones. Aided by the convenience and constant access provided by mobile devices, especially smartphones, 92% of teens report going online daily — including 24% of teens who are being mentioned previously by Lenhart. In addition to social networking sites, at this time digital novels or often called Wattpad are also widely used by teenagers [23]. The need to establish social relations on social media is the main reason that is done in accessing social media [24].

The motives for communication in social media are divided into two, namely (a) motives for using social media, namely the development of social and technological environments, easy to use, entertainment facilities, delivery and receiving messages quickly and not limited by space and time; (b) the motive for getting the latest information, showing one's existence, being a means for business and finding new relationships and friends. The communication experience in social media is divided into two, namely (a) positive communication that illustrates the wider reach of social media, media promises and information; (b) negative communication with many posts, worse content freedom, character assassination and poor communication ethics. Social interactions that occur are the effectiveness of message exchanges, shared interests, and giving new thoughts [25].

In using social media, teenagers often hide their identities and comment as anonymous accounts. Anonymity in social media is done by teenagers so they can feel more comfortable and free in expressing themselves and protecting themselves on social media. This can cause deindividuation in adolescents. The higher the level of anonymity, the higher the level of deindividuation. The occurrence of deindividuation due to anonymity can be seen from the pattern of social media usage in adolescents. Anonymity can be a way for adolescents to be careful to protect their identity and to be wiser in using social media [26].

Anonymity is a form of adolescent hiding their identity on social media. Aside from anonymity, teens also use pseudonyms to hide their identities on social media. Teenagers who use pseudonyms on social media show that they do not yet have full responsibility for what is written on social media [27].

Excessive use of social media in adolescents can interfere with the academic activities of teenagers at school. One of them is academic procrastination behavior. Based on

research by Neidi [28] the intensity of the use of social media has a relationship with academic procrastination behavior. The higher the intensity of the use of social media, the higher the level of academic procrastination. In addition to academic propagation, excessive use of social media can influence adolescent learning motivation so that it can cause a decrease in academic achievement in schools. However, the use of social media can be a positive impact on academic achievement if the use of social media is used as a means to add insight [29].

Research by Sherlyanita & Rakhmawati [30] revealed that teenagers access social media every day in about 1-2 hours a day. Activities that are often carried out on social media are viewing news feeds or timelines and then proceed with uploading, viewing profiles and leaving comments. The type of social media that is often used by teenagers is Facebook followed by Instagram and Twitter. On social media, teenagers make more friends with known friends and family. Personal information settings written by teenagers contain more personal privacy, that is, such as telephone numbers which are fatal information. The results of the study found that teenagers have been able to designate the use of the internet as both a means of learning and entertainment facilities such as social media.

Excessive use of social media can cause sleep disorders, namely insomnia. Every time they use social media, teenagers have a means of testing in the form of computers, laptops, cell phones and tablets that are often referred to as gadgets. Gadgets are devices that expose light that the longer use of social media through gadgets can interfere with the regulation of the hormone melatonin so that it can cause symptoms of sleep disorders or insomnia for adolescents [31].

Global use of the internet in society has shaped a new culture of communication in society [23]. Therefore, there is what is called the virtual world, the world on the internet. The self that is displayed in cyberspace or on social media is an ideal self that is different from everyday life. Teenagers enjoy the ideal self existence even though it is not real and end up spending more time in cyberspace. Teenagers who are active in social media activities want to look good and display the image of their ideal self-concept on their social media profiles, even though it does not match the real self-concept they have. This can be reduced by emphasizing real-self in positive teenagers without the use of social media. Thus, the use of social media can be reduced and do more productive things done by teenagers to improve their self-concept [32].



Addiction to the use of each social networking site each has different needs. On WhatsApp social media, it can fulfill five needs, while on social media Instagram only fulfills two needs. In Instagram social media usage, the main and most prominent fulfillment is the need to build warm social relations and the need to have fun and joy. As for the use of WhatsApp social media, in addition to the same findings as the use of social media Instagram, another need that arises is the need to feel able to display good performance and the need to be respected by other people [33].

In using social media, teenagers will express themselves by sharing their experiences in the form of status or personal photos. The factor influencing this is the thought that when someone displays an activity that is happening, then it must be done through video or photos in order to get a response from others. Teen satisfaction is obtained when he expresses himself on social media and get other people's responses. Self-satisfaction is also influenced by the mood of adolescents who are still unable to receive responses or comments that are not in accordance with their wishes from other social media users [34].

Teenagers who often use social media are often motivated by the needs that must be met. The more teenagers use social media, they will continue to search for the information they want related to information fulfillment. The more they meet the information needs, the more teens will discuss the information they get with other social media users which will trigger the emergence of concern for the environment that will shape the social awareness of teenagers [35].

The use of social media can be used as a means of selling for people who have businesses. The most widely used social media are Facebook, Twitter and Instagram. The use of social media can be useful in communicating with consumers, marketing and advertising, recording customer needs, responding to consumers, helping decision making and as a forum for discussion with consumers. Social media can increase sales by more than 100% if the seller updates information consistently every day [36].

Social media as a communication media can be a means to help entrepreneurship. This makes teenagers have a high level of entrepreneurship because the use of social media can help teens in promoting the products they sell [37].

The study from Fiati [38], adolescents are the largest community in Indonesian society who use social media regularly. The initial reason they were very active in using social media was to seek attention, solicit opinions, and grow images, but over time eventually became dependent.

Teenagers who have become dependent on social media, adolescents will tend to ignore their surroundings and focus more on their social media, often delaying work, experiencing insomnia, disrupting eye health and declining learning achievement due to feeling lazy to learn. When not using social media, teenagers will feel restless, scared, anxious, confused, bored, panicked and sad. This happens because teenagers are used to using social media on a daily basis. When using social media, adolescents will feel calm, happy and happy, so teens more often use social media that makes them feel good for themselves. Teenagers feel that social media is a part of their lives and make them not feel lonely [39].

The development of social media that is growing can be utilized as a tool that can help adolescent education both at home and at school. A study conducted by Irwandani & Juariah [40] is the making of comics uploaded on Instagram with physics subject material for high school students. By making comics that contain subjects in schools able to make students interested in the delivery of material provided. In addition, the ease of accessing social media can also be used as an alternative learning for students because it can be accessed anytime and anywhere.

Study by Zakia et al. [41], which discusses problem-based learning using Line social media on student learning outcomes in secondary schools on biology subjects about the digestive system, gets results that students who take elearning through social media Line get better results than students who get material face to face. This is because the use of e-learning can cover the shortcomings of the material presented which is time consuming. Through social media, discussions, presentations and evaluations by the teacher are delivered with notes on the Line. One of the advantages of this feature is that students can see the results of the discussion on the notes later, so students can access them anytime and anywhere.

1.2 Our Contribution

Although social media has a positive impact on adolescents, but when they have difficulty escaping from activities related to social media it will have a less positive impact.



The hypothesis in this study is that the demographic potential contributes to the use of social media by adolescence.

1.3 Paper Structure

RESEARCH METHODS

The design of this study is non-experimental quantitative research. To overcome the bias of the results of this study, the researchers conducted restrictions or specifications on the research subjects so that the data obtained was able to meet the homogeneity requirements. Therefore, the research sample in this study must meet these characteristics, namely: (a) adolescents or high school students who are not restricted by sex, (b) adolescents aged 11-19 years.

Table 1 Frequency Distribution of Gender Research Participants

		Frequency	Percent
Valid	Boy	950	46,6
	Girl	1088	53,4
	Total	2038	100,0

Based on the level of education more from the level of junior high school education (SMP) than high school (high school).

Table 2
Age Frequency Distribution of Participants

Education	Frequency	Percent
Junior High School	1078	52,9
High School	960	47,1
Total	2038	100,0

The research instrument used in the form of a questionnaire consisting of questionnaires regarding the use of social media.

The questionnaire has a section, namely (a) a preface containing the introduction of the researcher, the purpose of the study, and a request for willingness to fill out; (b) informed consent sheets and control data; (c) instructions for filling out the questionnaire.

The measurement of the use of social media is planned to use the Social Networking Activity Intensity Scale measurement tool. To test the research hypothesis, a regression analysis was conducted, assessing adolescents with their context or demographic potential, including age, sex, level of education, etc. included as part of demographic data, which was then separated based on the factors examined in this research namely the use of social media. Furthermore, related to data analysis will be carried out using the SPSS version 16.0 for windows program and delivery of descriptive statistics.

2. BACKGROUND

Distribution of research data is not normal so that the data processing is done by nonparametric. Based on the data processing and analysis found differences between the use of social media based on gender. Girls use social media more than boys.

Table 3

Comparison of Mean Rank Based on Gender

Sex	N	Mean Rank	Sum of Ranks
Boy	950	882,34	838225,50
Girl	1088	1139,26	1239515,50
Total	2038		

Table 4
Comparison of Main Data

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	TOTAL_SNAIS
Mann-Whitney U	386500,500
Wilcoxon W	838225,500
Z	-9,837
Asymp. Sig. (2-tailed)	,000

a Grouping Variable: Sex

From the analysis of the research data, there was no difference between the use of social media by adolescents who were in junior and senior high school education.



Table 5

Comparison of Mean Rank Based on Educational Background

Education	N	Mean Rank	Sum of Ranks
Junior High School	1078	1041,50	1122738,00
High School	960	994,79	955003,00
Total	2038		

Table 6

Comparison of The Use of Social Media in terms of Education

	TOTAL_SNAIS
Mann-Whitney U	493723,000
Wilcoxon W	955003,000
Z	-1,789
Asymp. Sig. (2-tailed)	,074

a Grouping Variable: education

However, based on the comparison of empirical mean and hypothetical mean from the scale used, it was found that the use of social media by adolescents tended to be high. The scale of research on measuring the use of social media is in the scale of 1 to 6, with a hypothetical mean value of 3.5. Meanwhile, the empirical mean is higher than the hypothetical mean which is 3.7469 and the Standard Deviation is 0.71466.

3. CONCLUSION

The findings of the study that there are differences in the use of social media in adolescents, girls more often use social media than boys. However, there is no difference in the use of social media by junior and senior high school students.

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REFERENCES

- [1] Papalia, D. E., & Martorell, G. (2014). *Experience human development* (13th ed.). New York: McGraw Hills.
- [2] Sarwono, S. (2012). *Psikologi remaja*. Jakarta: Raja Grafindo Persada.
- [3] Gestsdottir, S., & Lerner, R. M. (2007). Intentional self-regulation and positive youth development in early adolescence. *Development Psychology*. *43*(2), 508-521.
- [4] Gunarsa, Y. S. D. (2008). *Psikologi remaja*. Jakarta: Gunung Mulia.
- [5] Badan Pusat Statistik. (2003). *Indonesia young adult reproductive health survey 2002-2003*. Jakarta: Badan Pusat Statistik.
- [6] Prayudhi, D. (2011). Persepsi mahasiswa tentang tingkat akurasi pemberitaan media online. *Jurnal Riset Komunikasi*. 2(4). Serang: Universitas Sultan Ageng Tirtayasa.
- [7] Erlangga, R., & Amidi, A. (2019). Hubungan antara segmentasi demografis dengan keputusan menggunakan media sosial. *Jurnal Ilmu Manajemen*. 8(2). 50-64.
- [8] Aryani, K. (2008). Analisis penerimaan remaja terhadap wacana pornografi dalam situs-situs seks di media online. *Jurnal Komunikasi*. 7(2). (h.71-78). Surabaya: Universitas Airlangga.
- [9] Bauman, S., Toomey, R., & Walker, J. (2013). Associations among bullying, cyberbullying, and suicide in high school students. *Journal of Adolescence*. 36. 341–350.
- [10] Afriyeni, N. (2017). Perundungan maya (Cyber Bullying) pada remaja awal. *Jurnal Psikologi Insight*. 1(1). 25-39.
- [11] Fauziawati, W. (2015). Upaya Mereduksi Kebiasaan Bermain Game Online Melalui Teknik Diskusi Kelompok. *PSIKOPEDAGOGIA Jurnal Bimbingan dan Konseling*.4(2). 115-123.



- [12] Fitri, M. E. Y., & Chairoel, L. (2019). Penggunaan media sosial berdasarkan gender terhadap prestasi belajar mahasiswa. *Jurnal Benefita: Ekonomi Pembangunan, Manajemen Bisnis & Akuntansi*. 4(1). 162-181.
- [13] Juwita, E. P., Budimansyah, D., & Nurbayani, S. (2015). Peran media sosial terhadap gaya hidup siswa. *SOSIETAS*, *5*(1).
- [14] Nuraini. T. P., & Erna. H. (2019). Hubungan tingkat adiksi internet dan derajat depresi dengan prestasi belajar di SMA Batik 2 Surakarta. Skripsi. Universitas Muhammadiyah Surakarta.
- [15] Ramadhani, G. (2005). *Modul pengenalan internet*. Yogyakarta:
- [16] Creeber, G., & Martin, R. (2009). *Digital cultures: Understanding new media*. Berkshire England: University Press.
- 17] Lievrouw, L. A. (2011). *The handbook of new media*. London: Sage Publications.
- [18] Suraya, M. (2019). Social media shapes youth's identity and self-concept in Sawarna, Lebak Banten, Indonesia. *International Journal of Scientific and Research Publications*, *9*(7). DOI: 10.29322/IJSRP.9.07.2019.p91112
- [19] McQuail, D. (2011). *Teori komunikasi massa*. Jakarta: Salemba Humanika.
- [20] Anwar, F. (2017). Perubahan dan permasalahan media sosial. *Jurnal Muara Ilmu Sosial, Humaniora, dan Seni.* 1(1). 137-144.
- [21] Lenhart, A., Duggan. M., & Perrin A. (2015). Teens, social media & technology overview. Retrieved from https://www.pewresearch.org/wp-content/uploads/sites/9/2015/10/pi_2015-10-01_teens-technology-romance_final.pdf
- [22] Lenhart, A. (2015). Teens, social media and technology overview 2015. Retrieved from https://www.pewresearch.org/internet/2015/04/09/teens-social-media-technology-2015/
- [23] Supratman, L. P. (2018). Penggunaan media sosial oleh digital native. *Jurnal Ilmu Komunikasi*. 15(1). 47-60.
- [24] Mulawarman, M., & Nurfitri, A. D. (2017). Perilaku pengguna media sosial beserta implikasinya ditinjau dari perspektif psikologi sosial terapan. *Buletin Psikologi*. 25(1). 36-44.

- [25] Nurhadi, Z. F. (2017). Model komunikasi sosial remaja melalui media twitter. *Jurnal Aspikom*. 3(3). 539-549.
- [26] Mukhoyyaroh, T. (2020). Anonimitas dan deindividuasi pada remaja pengguna sosial media. *Jurnal Penelitian Psikologi*. 11(1). 26-32.
- [27] Putro, F. H. A. (2017). Perilaku penggunaan media sosial dan identitas diri (studi deskriptif kualitatif tentang perilaku penggunaan media sosial dan identitas diri di kalangan mahasiswa S1 Jurusan Komunikasi Universitas Slamet Riyadi Surakarta). *Transformasi*. 2(32).
- [28] Neidi, A. W. (2019). Hubungan antara intensitas penggunaan media sosial dan prokrastinasi akademik dalam menyelesaikan skripsi pada mahasiswa. *Acta Psychologia*. 1(2). 128-139.
- [29] Wibisino, T., & Mulyani, Y. S. (2019). Analisis dampak penggunaan media sosial terhadap prestasi akademik pelajar tingkat sekolah menengah pertama. *Jurnal Ekonomi Manajemen*. 4(1). 1-7.
- [30] Sherlyanita, A. K., & Rakhmawati, N. A. (2016). Pengaruh dan pola aktivitas penggunaan internet serta media sosial pada siswa SMPN 52 Surabaya. *Journal of Information Systems Engineering and Business Intelligence*. 2(1). 17-22.
- [31] Syamsoedin, W. K. P., Bidjuni, H., & Wowiling, F. (2015). Hubungan durasi penggunaan media sosial dengan kejadian insomnia pada remaja di SMA Negeri 9 Manado. *Jurnal Keperawatan*. 3(1).
- [32] Felita, P., Siahaja, C., Wijaya, V., Melisa, G., Chandra, M., & Dahesihsari, R. (2016). Pemakaian media sosial dan self concept pada remaja. *Manasa-old*. 5(1). 30-41.
- [33] Rahardjo, W., Qomariyah, N., Andriani, I., Hermita, M., & Zanah, F. N. (2020). Adiksi media sosial pada remaja pengguna instagram dan whatsApp: Memahami peran need fulfillment dan social media engagement. *Jurnal psikologi sosial*. 18(1). 5-16.
- [34] Estiyani, R., & Ruhaena, L. (2018). Ekspresi diri melalui media sosial dan maknanya pada remaja SMP. Thesis. Universitas Muhammadiyah Surakarta.
- [35] Gita, A., & Dwi, E. (2017). Hubungan Penggunaan Media Sosial dengan Tingkat Kepekaan Sosial di Usia Remaja. *Jurnal The Messenger*. 9(1). 65-69.
- [36] Purwidiantoro, M. H., SW, D. F. K., & Hadi, W. (2016). Pengaruh penggunaan media sosial terhadap



pengembangan usaha kecil menengah (UKM). *EKA CIDA*. 1(1).

[37] Rahayu, E. S., & Laela, S. (2018). Pengaruh minat berwirausaha dan penggunaan sosial media terhadap kewirausahaan mahasiswa. *Jurnal Pengembangan Wiraswasta*. 20(3). 203-216.

[38] Fiati, R. (2005). *Akses internet via handphone*. Yogyakarta: Andi.

[39] Hakim, S. N., & Raj, A. A. (2017). Dampak kecanduan internet (internet addiction) pada remaja. *Prosiding Temu Ilmiah Nasional X Ikatan Psikologi Perkembangan Indonesia*. 1.

[40] Irwandani, I., & Juariyah, S. (2016). Pengembangan media pembelajaran berupa komik fisika berbantuan sosial media instagram sebagai alternatif pembelajaran. *Jurnal Ilmiah Pendidikan Fisika Al-Biruni*. 5(1). 33-42.

[41] Zakia, A. R., Djamahar, R., & Rusdi, R. (2019). Pengaruh pembelajaran berbasis masalah menggunakan media sosial E-learning terhadap hasil belajar siswa sekolah menengah pada sistem pencernaan. *JPBIO (Jurnal Pendidikan Biologi)*. 4(1). 21-28.