Investigating Virtual Learning on Students' Learning Outcomes in Urban and Rural Areas

Nunuk Hariyati✉, Wagino, Mudjito

Department of Educational Management, Faculty of Education, Universitas Negeri Surabaya, Indonesia

Abstract

This study aims to investigate the implementation of virtual learning on students' learning outcomes mediated by motivation and to compare its effectiveness between urban and rural areas. This study employed quantitative design, involved 362 students of Faculty of Education in UNESA. To determine the sample, it employed Solvin's formula. The data were collected by using three instruments, specifically Virtual Learning Effectiveness, Learning Outcomes, and Motivation. To see the difference of virtual learning on learning outcomes mediated by motivation based on student's location, path analysis was performed twice by separating the data into two kinds of groups. The first group contains student's data that lived in an urban area. The second group contains student's data that lived in a rural area. The findings of this research confirm that the virtual learning is effective to improve students' learning outcomes which was mediated by motivation. In addition, it was found that the motivation of students from urban areas is higher than those from rural areas. It suggests that the native location of students influences their motivation.

How to Cite

Hariyati, N., Wagino, W., & Mudjito, M. (2021). Investigating Virtual Learning on Students' Learning Outcomes in Urban and Rural Areas. *Dinamika Pendidikan,* 16(1), 54-63.

✉ Correspondence Author:
Jl. Lidah Wetan, Lakarsantri, Surabaya
E-mail: nunukhariyati@unesa.ac.id

INTRODUCTION

Recently, we are encountering a global crisis which affects most of human being life aspects. The current Covid-19 pandemic which spread all over the world in the beginning of 2020 has distracted every single element, including education. This unpredictable global pandemic enforces us to be able to make proper adjustment of learning approaches and strategies since the condition limits us to perform a face-to-face meeting to stop a wider spread of the virus. As a result, all activities that allows people to gather in a one place within a one certain time is being limited, or, we commonly called it as physical distancing.

In the educational setting, as expected, a conventional classroom learning which allows students to gather in one place within certain time is extremely prohibited. This condition forces us to remain staying at home, work from home, worship from home, and even study from home. Therefore, it is important to proceed to other alternative learning approach that does not require a face-to-face meeting. In other words, virtual learning these days is the most within reach approach to exchange face-to-face learning (Setiawan & Iasha, 2020). There is something about gap on other *research*, the research conclude that urban area was more clearly smoothly victorious on learning process because of the support from their environmental input than the rural areas. It happens because rural areas have minimum facility to improve an online learning such as Wi-Fi or a signal (DeMatthews, Knight, Reyes, Benedict, & Callahan, 2020).

To be able to conduct teaching and learning process, it is important to consider an alternative approach. The most possible alternative approach is by carrying out a virtual learning. Virtual learning, according to Moore et al., (2011), is an approach of learning that provides students or learners to access learning materials remotely without being presented physically in the classroom. Most experts such as Benson (2002), Carliner (2004), and Conard (2002) define online learning as a learning experience that employ current technology.

Conard (2002) and Benson, et al (2002) classify online learning as a modern and brand-new variation of distance learning that improves access to learning materials for learners. By the same token, other experts confirm that online learning, in addition to improve the accessibility of learners, it offers superlative connectivity, flexibility, and ability to promote diversified interactions between learners and educators (Ally, 2004;

Hiltz & Turoff, 2005; Oblinger & Oblinger, 2005). On that account, the most possible approach to be taken into account to temporarily substitute conventional face-to-face learning is by employing virtual or online learning.

On the basis of regulation concerning on the Prevention of Covid-19, every particular activities on Indonesia must be at home (BNPB, 2020). This regulation, according to DeMatthews, et al (2020) brings significant impact to both teachers and students, particularly in carrying out remote teaching and learning process. In addition, this aggressive policy triggers an uneasiness on some educational institutions that are not ready to carry out online teaching and learning process, despite the fact that the information technology in these days has developed significantly. In other way, it has reported that the development of information technology in higher education attracts special attention of researchers and experts, specifically in terms of its infrastructures.

Current studies related to the online learning implementation during Covid-19 have reported both benefits and drawbacks of online learning (Dhawan, 2020; Rapanta et al., 2020; Baber, 2020; Nambiar 2020; Dutta, 2020;). According to Lestari and Gunawan (2020), the implementation of online learning during the Covid-19 pandemic is capable of encouraging the learning process to be more efficient, particularly in the current global age, where the transfer of knowledge is very rapid. In addition, they confirm that online learning has a variety of positive effects.

Similar argument is elaborated by Lie, et al (2020) who confirm that during the global pandemic, carrying out online learning is essential to facilitate students' learning access since it provides students a wider chance to independently access for learning materials. At the same time, however, they explained that to provide satisfactory online learning, it is important to consider the adequate infrastructures. In this case, teacher should make learning innovation using an interactive learning media (Akbarini, Murtini & Rahmanto, 2018). However, current studies only reported the benefits and drawbacks of online learning qualitatively and descriptively from the perspective of students and/or teachers' perception.

Particularly in Indonesia setting, most studies explain the perception of students and teachers during online learning (Zhafira et al., 2020; Dewi, 2020; Ningsih, 2020; Agung, Surtikanti, & Quinones, 2020; Harsasi, 2015). There is a li-

mited study that focus on the examination of online learning effectiveness on students' learning outcomes quantitatively. This study intends to comprehensively examine the effectiveness of online or virtual learning on students' learning outcomes. In specific, this study aims to answering how the implementation of online or virtual learning affect students' learning outcomes which is presumably mediated by students' motivation. In addition, this study compares two group of students from two different areas, urban and rural areas.

METHODS

This study design employed quantitative. This study involved 362 students in Faculty of Education, Universitas Negeri Surabaya (UNESA). To determine the sample, it employed Slovin's formula. The data were obtained by using three instruments, specifically, virtual learning effectiveness, learning outcomes, and motivation. The assessment on the distributed instrument was used Likert scale 1-4 with the following details: 1: strongly disagree; 2: moderately disagree; 3: agree; and 4: strongly agree. At the end of the data collection, however, only 266 filled the questionnaires.

This study consisted of three variables, one independent variable, one dependent variable, and one mediating variable. To see the difference of virtual learning on learning outcomes mediated by motivation based on student's location, path analysis was performed twice by separating the data into two kinds of groups. The first group contains student's data that lived in an urban area. The second group contains student's data that lived in a rural area. The data obtained were then analyzed by using path analysis, with the WarpPLS 5.0 software program.

RESULTS AND DISCUSSION

The path analysis in this study was performed twice, specifically, a path analysis for rural area group and a path analysis for urban area group. Both path analysis results aimed at comparing whether the location of the students might contribute the mediating factor which affect the correlation between the effectiveness of virtual learning and students' learning outcomes. The following explains both path analysis for urban and rural areas group.

Direct Effect of Virtual Learning on Learning Outcomes of Urban Area Group

The statistical analysis result presented in Table 1 obtained that the value of direct effect of virtual learning on learning outcomes is 0.084. It further means that there is no significant effect of virtual learning on students' learning outcomes (p value: 0.108 > 0.05).

Statistical figures from existing research results show that virtual learning does not provide a significant learning outcome for students in urban areas. This is of course for various causes, which of course these reviews are outside the variables of this study, because the existing limitations are only a test whether there are differences related to various study results regarding learning outcomes and their comparison to rural areas and also urban areas. However, if it is examined more deeply, of course when discussing or examining the insignificance of learning outcomes in urban areas, it is examined from the perspective of an empirical basis by the research team, the main cause is self-burnout during a pandemic.

Actual burnout is an emotional, physical and mental condition caused by intense and prolonged stress (Baron & Greenberg, 1990). If you look at the definition above, fatigue that occurs due to internal and external factors such as the environment that causes prolonged stress. In line with Baron and Greenberg's statement, burnout is an emotional and physical form due to various levels of intensity, duration, and frequency (Ayala Calvo & Manzano García, 2021). The emotional condition of a person who feels tired and bored physically and mentally, as a result, a person experiences stress for a long time which involves quite a high emotional level (Christiana, 2020).

The result of burnout is that there are seve-

Table 1. The Result of Direct Effect of Virtual Learning on Learning Outcomes of Urban Area Group

			Esti-mate	Std. Er-ror	z-value	p	95% Confidence Interval	
							Lower	Upper
Total X	→	Total Y2	0.084	0.052	1.606	0.108	-0.018	0.185

Note. Delta method standard errors, normal theory confidence intervals, ML estimator.
Source: Primary Data Processed (2020)

Table 2. The Result of Indirect Effect of Virtual Learning on Learning Outcomes Mediated by Motivation of Urban Area Group

| | | | | | Estimate | Std. Error | z-value | p | 95% Confidence Interval | |
									Lower	Upper
Total X	→	Total Y1	→	Total Y2	0.077	0.027	2.828	0.005	0.024	0.130

Note. Delta method standard errors, normal theory confidence intervals, ML estimator.
Source: Primary Data Processed (2020)

ral attitudes such as the emergence of negative attitudes, decreased desire to learn, frustration, feelings of failure, environmental rejection, and low self-esteem. Feelings of hopelessness and inadequacy caused by prolonged stress related to learning are also fatigue (Santrock, 2003). Based on some of the definitions above, this leads to academic fatigue, where a person feels tired due to the burden of study, study, looks cynically at school assignments or lectures and do not feel competent as a student (Schaufeli, 2002). It can be drawn a common thread that fatigue is an emotional state where the intensity of one's work is too high and a person will feel physical and mental pain due to psychological withdrawal who cannot perform the task, the result of punishment or learning pressure.

Burnout caused by doing activities or tasks continuously for a long period of time which create fatigue emotionally, physically and mentally. In addition, there are several factors that cause a person to experience burnout, including (Christiana, 2020) (1) work overload, (2) a change in the learning climate, and also (3) boredom of doing something that regulates it is difficult. Since the stipulation of Covid 19 as a national pandemic, all activities including education must be carried out from home or usually working from home (BNPB, 2020).

According to the research team, this is alleged to be the cause of the absence of optimal learning outcomes for the implementation of virtual learning in urban areas. Because both in terms of saturation, both in villages and cities feel the same way, because in essence students are closer to direct learning because there is interaction with friends near them, and are more able to ask what they understand directly to the related teacher (Firman & Rahman, 2020).

Indirect Effect of Virtual Learning on Learning Outcomes Mediated by Motivation of Urban Area Group

The result in Table 2, it obtained that the value of direct effect of virtual learning on learning outcomes mediated by motivation is 0.077. It

further means that there is a significant effect of virtual learning on students' learning outcomes which was mediated by motivation of students (p value < 0.05).

Based on the R-squared in Table 3, it can be concluded that the variation in the value of learning outcomes that can be explained by virtual learning effectiveness is as much as 15,6%. As in motivation variable, it can be concluded that the variation in the value of learning outcomes that can be explained by motivation is as much as 20,2%.

Table 3. R-Squared Results of Urban Area Group

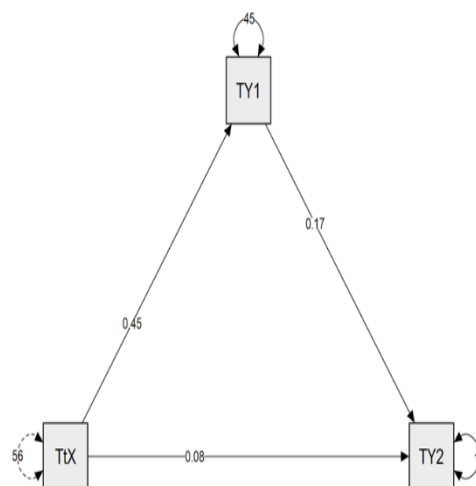| R-Squared	R²
Learning outcomes	0.156
Motivation	0.202

Source: Primary Data Processed (2020)

Figure 1. Path Plot 1
Annotation: TtX: Virtual Learning Effectiveness; TY2: Learning Outcomes; TY1: Motivation (mediating variable). Source: Primary Data Processed (2020).

The results of the study have been generalized, that the existence of virtual learning outcomes mediated by motivation of urban area groups tends to have a high significance for learning outcomes. This means that a learning out-

come in online learning as it is today, will not run optimally, if students who are present in a lesson are not motivated either explicitly or implicitly. Learning that seems plain will make a student bored and has no passion for learning activities.

Research from Deci, E. L., & Ryan, (2016) said that for an increase in learning outcomes, motivation plays a role as a conceptual tool in learning communication so that students become more confident in carrying out learning and learning. Confidence in learning is used as a high level of student confidence in fulfilling various learning tasks. If a student is given motivation combined with virtual learning, of course students at the city level will be able to carry out learning optimally. This is because in terms of environmental inputs such as facilities and infrastructure, as well as internet networks in urban areas, it is certain that there will be no shortage of one thing or another.

That various assistance such as data packages or assistance for internet access can be optimally actualized in urban areas. Of course, this boils down to optimal implementation of virtual learning. When the means and infrastructure, as well as a strong network have been fulfilled, one thing that should be done is of course providing motivation, so that from a physical point of view such as infrastructure and internet networks are fulfilled, as well as from a psychological perspective such as providing motivation to be optimally accommodated. It can be concluded that the high significance of the learning outcome is due to the existence of virtual learning, and its combination with the provision of motivation.

Both in terms of motivation and the means that are fulfilled lead to the condition where learning outcomes can be achieved optimally. On the other hand, the motivation to learn from a student is allegedly able to be a stimulus for student enthusiasm. As it is well known, that in behavioristic learning theory there is a stimulus and also a response. The stimulus serves as a trigger for the desire to learn, and the high enthusiasm for learning is the result of the response from the stimulus that is manifested optimally. No matter how high an environmental input is, if the learning is not balanced with the provision of reinforcement in the form of motivation, reward, or punishment, learning will not find an integration to produce memorable learning patterns for students (Hendrayati, 2013).

Integrity, that is the decisive element in realizing optimal learning outcomes at the virtual learning level. The discussion in this section is also in line with the discussion of research from Hwa (2018), that without giving motivation in any learning model, the only outcomes that will appear are students who are present in class, but the focus of their thoughts is not in the class. This means that if students are not given motivation, they can still be present in the virtual learning room, but these students will not focus on existing learning and learning offerings.

On the basis of various existing expressions, motivation is needed to support high learning outcomes. On the other hand, teachers must also be able to take responsibility for all students' psychological activities, both students who feel demotivated or experiencing decreased motivation and students who are in a high motivation pattern. So that, teachers can make it a foundation in improving student motivation, both as a group and individually.

Results of Total Effect of Urban Area Group

Conceptually, the total effect related to virtual learning tends to have a high significance. This means that rationally, there are effect and impacts of virtual learning on the progress of the achievement of learning outcomes in a city-based educational institution. This is due to several things, namely (1) supporting facilities and infrastructure, (2) government assistance that can be used optimally, (3) supporting environmental inputs, and (4) geographic location in economic center, making all student activities are always provided with convenience in the learning and learning process. Even though direct virtual learning without the provision of motivation, the existing variables tend to show low significance, when the motivation is added, it is able to draw students' focus in developing the quality of the learning outcome of their learning.

Result of Direct Effect of Virtual Learning on Learning Outcomes of Rural Area Group

Table 4 shows that the value of direct effect of virtual learning on learning outcomes is 0.136. It further means that there is a significant effect of virtual learning on students' learning outcomes (p value < 0.05).

Table 4 is stated that there is a significant effect which virtual learning provides on learning outcomes in rural areas. When examined rationally, rural is an area that has a population that is not as dense as cities, or even has cooler air circulation. Where this is, of course, will increase the passion for learning of a related student. This is because (1) cool environmental conditions and (2) less dense environments are moderating variables for the optimal implementation of a

Table 4. The Result of Direct Effect of Virtual Learning on Learning Outcomes of Rural Area Group

					95% Confidence Interval	
	Estimate	Std. Error	z-value	p	Lower	Upper
Total X → Total Y2	0.136	0.048	2.808	0.005	0.041	0.230

Note. Delta method standard errors, normal theory confidence intervals, ML estimator.
Source: Primary Data Processed (2020)

teacher's learning (Lai, Mcnaughton, Jesson, & Wilson, 2020). This will lead to the fulfillment of the student's needs for a conducive environment when studying. It leads a student into a flow state condition, where an implementation of independent learning of students will flow like water, and students will enjoy learning.

Independent learning will be able to flow like water is, students who have the capability to learn continuously at a consistent time according to their intrinsic desire. As a result, students who are involved in a flow state condition, will feel that learning is not only an obligation, but learning is something that should be carried out for the needs of increasing their competence in undergoing a certain learning without the slightest objection. In line with the expression of (Zadina, 2014), flow state condition, is a condition in which students when learning always flow and focus, because the material studied by these students seems easy to understand, so that psychologically the material becomes fun for the individual's brain who is learning.

The presence of a conducive environment for learning as mentioned by the researcher is in a position to try to provide a flow state condition, through a stimulus in the form of an optimal independent learning atmosphere, so that students feel comfortable when learning because they feel that all the material can be understood easily because of the convenience of the learning process as expected by most students. This opinion is supported by the opinion (Schunk, 1991), that a condition for the flow of learning that is in students' cognitive, will be realized through learning fun because students feel they understand something they have just learned.

It was also stated, that if a student experiences such conditions, a domino effect will arise, which is in the form of positive things in learning activities that are continuously carried out by students because of the fun of learning. Thus, if students feel comfortable during learning activities, they will automatically have critical thinking skills due to a domino effect. This is reinforced by (Dalmau, Halfis, 2017) if a student has experienced learning fun because of his complex under-

standing, then he will find out from any source, both media and teachers, as well as friends to deepen his knowledge.

The compilers can draw a common thread that 4C (Communication, Collaboration, Critical Thinking and Problem Solving, Creativity and Innovation) skills will form automatically because a student who experiences the domino effect of learning will ask questions, communicate, and collaborate with anyone, in order to deepen his curiosity, so that automatically the student's critical thinking will emerge automatically. After it is clearly explained, it can be understood together, that a beautiful, green, and not crowded village environment is a strategic environment in developing the learning climate for students.

If there are individuals who ask questions related to how the facilities and infrastructure are within the scope of the village, then it can be ascertained that if the existing village is not included in the left behind, frontier and outermost area, it can also be concluded that the main capital related to implementing virtual learning is internet data and strong signals, or wi-fi has been fulfilled optimally in the area.

Therefore, it is natural that without an internalization of motivation, students in rural areas are still able to achieve optimal learning outcomes, as linear with the statements in the related research results. Recommendations that can be given to improve learning outcomes for students, are in the form of learning place settings. When virtual learning is made as comfortable as possible, the various learning outcomes like students in villages can also be actualized in the urban.

Indirect Effect of Virtual Learning on Learning Outcomes Mediated by Motivation of Rural Area Group

Based on the statistical analysis result in Table 5, it obtained that the value of direct effect of virtual learning on learning outcomes mediated by motivation is 0.079. It further means that there is a significant effect of virtual learning on students' learning outcomes which was mediated by motivation of students (p value < 0.05).

Based on the R-squared in Table 7, it can

Table 5. The Result of Indirect Effect of Virtual Learning on Learning Outcomes Mediated by Motivation of Rural Area Group

	Estimate	Std. Error	z-value	p	95% Confidence Interval	
					Lower	Upper
Total X → Total Y1 → Total Y2	0.079	0.026	3.052	0.002	0.028	0.130

Note. Delta method standard errors, normal theory confidence intervals, ML estimator
Source: Primary Data Processed (2020)

Table 6. The Results of Total Effect of Rural Area Group

	Estimate	Std. Error	z-value	p	95% Confidence Interval	
					Lower	Upper
Total X → Total Y2	0.214	0.044	4.822	< .001	0.127	0.302

Note. Delta method standard errors, normal theory confidence intervals, ML estimator
Source: Primary Data Processed (2020)

be concluded that the variation in the value of learning outcomes that can be explained by virtual learning effectiveness is as much as 21%. As in motivation variable, it can be concluded that the variation in the value of learning outcomes that can be explained by motivation is as much as 21,9%.

Table 7. R-Squared Results of Rural Area Group

	R²
Learning outcomes	0.210
Motivation	0.219

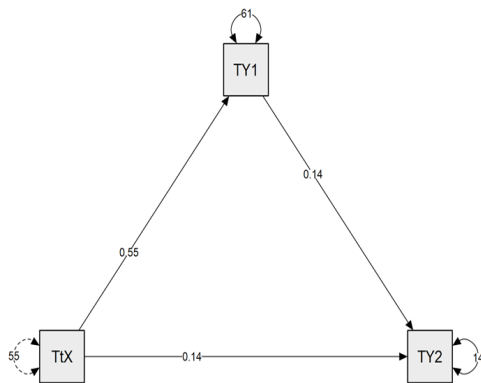Source: Primary Data Processed (2020)

Figure 2. Path Plot 2
Annotation: TtX: Virtual Learning Effectiveness TY2: Learning Outcomes; TY1: Motivation (mediating variable). Source: Primary Data Processed (2020).

It shows that the effect of virtual learning effectiveness on learning outcomes mediated by motivation is stronger for student's that lived in a village area rather than those who lived in city area. It confirms that the motivation as a mediating variable in the relation of virtual learning effectiveness and learning outcomes is significant. Motivation plays an essential role in activating students' encouragement to learn in virtual learning as the most possible alternative approach to substitute conventional face-to-face learning. This notion supports the argument elaborated by Alina (2006) stating that the involvement of students in virtual or online learning activated students' self-regulation in a positive manner. Furthermore, the self-regulation drives students' motivation to achieve high academic performance.

It is believed that motivation frequently plays as a significant factor in learner success as affirmed by Knowles (1980). This students' motivation is also confirmed by some previous studies that influences academic performance in online learning strategy (Islam et al., 2018; Vanslambrouck, Lombaerts, & Philipsen, 2018; Alkis & Temizel, 2018, Zhang et al., 2019; and Francis, (Shahroom & Hussin, 2018)even schools are not extremely supportive in picking profession way. The fourth Industrial Revolution (IR 4.0. Thus, in general, when students demonstrate sufficient motivation in the learning process, including the online learning strategy, students' academic performance will also be enhanced.

Vice versa, when students possess less motivation to carry online learning process, students will not obtain any practical benefit during the learning process. Furthermore, this study performed two path analysis that differentiate the location of the students, specifically, it distinguished between urban and rural areas. The two path analyzes carried out were aimed at comparing whet-

her students' native areas relate to the degree of motivation (as a mediating variable) of students who simultaneously influence student learning outcomes in the realization of virtual learning.

The indirect effect of virtual learning implementation mediated by motivation among students from rural areas was 0.079 and among students from urban areas was 0.077. The results indicate that the effect of virtual learning implementation among students from rural areas is higher than the students from the urban areas. Practically the results of this research can be directed to make new policies for the faculty, for a policy relevance to the factual conditions that exist in the field, as has been disclosed in this research article. It further confirms that students from the rural areas have stronger motivation to carry out virtual learning approach. These results support the findings reported by Rahmat & Akbar (2019). The findings confirm that there is a significant different of students' motivation based on geographical characteristics.

Students from rural areas might have stronger motivation to learn and achieve higher since they are most likely difficult to have a sufficient access. Thus, when they obtain limited access to learn, including the online learning, they tend to maximize the learning process and it drives their motivation stronger to achieve higher. Akpan & Offong (2019) also reveal that the location of students' residence contributes to the encouragement of students during the process of learning. Motivation is a fundamental and essential contributor of learning process, as stated by Riswanto & Aryani (2017).

The total effect shown in table 6 illustrates that learning outcomes in rural tend to have better total significance compared to urban areas. This happens because of the environment and learning places that are more conducive to running virtual learning. Then, even though the facilities and infrastructure for running virtual learning tend not to be as advanced as in cities, in villages that are not included in isolated and outermost areas it is still adequate in the context of implementing virtual learning as it is now all over the world due to the Covid-19 pandemic.

It can be used as a new recommendation for all educational process organizers, that the most important thing that needs to be internalized in an institution in carrying out virtual learning is not urban areas which are always advanced because of their facilities and infrastructure. Rather, a learning environment that is conducive and away from noise can also be a major determinant of the success of the teaching and learning process, especially in the current pandemic conditions. The total effect in this table also represents the general assumption that people in villages are less able to obtain optimal learning outcomes due to facilities and infrastructure issues. Meanwhile, the capacity of rural areas in the context of this study tends to be adequate in carrying out the virtual learning process.

CONCLUSION

Motivation as mediating variable contribute to the influence of virtual learning implementation on students' learning outcomes. In addition, when it is compared from two different geographical characteristics, between rural and urban areas, students in rural areas tend to have higher motivation in carrying out virtual learning. Even though students from urban areas have smaller motivation in carrying out virtual learning, yet the motivation among students in urban areas remains contributing to improve students' learning outcomes. Therefore, it affirms that motivation plays an essential role in the process of virtual learning implementation. For future research, it is suggested to conduct comprehensive study that compare two or more groups of students from wider area such as cross-sectional study between countries or continent to reveal how the degree of motivation can be influenced by other important factors.

REFERENCES

Agung, A. S. N., Surtikanti, M. W., & Quinones, C. A. (2020). Students' Perception of Online Learning during COVID-19 Pandemic: A Case Study on the English Students of STKIP Pamane Talino. Soshum: Jurnal Sosial dan Humaniora, 10(2), 225-235.

Akbarini, N., Murtini, W., & Rahmanto, A. (2018). The Development of Lectora Inspire-Based Interactive Learning on General Administration Subject. *Dinamika Pendidikan, 13*(1), 72-79. https://doi.org/10.15294/dp.v13i1.13006

Akpan, N., & Offong, A. U. (2019). School Location, Human Resources and Financial Accounting Students Motivation in Public Secondary Schools in Uyo Local Education Committee.

Alkış, N., & Temizel, T. T. (2018). The impact of motivation and personality on academic performance in online and blended learning environments. Journal of Educational Technology & Society, 21(3), 35-47.

Ally, M. (2004). Foundations of educational theory for online learning. In Terry (Ed.), The theory and practice of online learning (pp. 3−31). (2nd ed). Athabasca, AB: Athabasca University.

Alina, Z. (2006). Learning styles and online education. Campus-Wide Information Systems, 23(5), 325–335. https://doi.org/10.1108/10650740610714080

Ayala Calvo, J. C., & Manzano García, G. (2021). The influence of psychological capital on graduates' perception of employability: the mediating role of employability skills. Higher Education Research & Development, 40(2), 293–308. https://doi.org/10.1080/07294360.2020.1738350

Baron, R. A., & Greenberg, J. (1990). Behavior in Organization: Understanding and Managing the Human Side of Work (3th ed.). Toronto: Allyn & Bacon.

Baber, H. (2020). Determinants of Students' Perceived Learning Outcome and Satisfaction in Online Learning during the Pandemic of COVID-19. Journal of Education and e-Learning Research, 7(3), 285-292.

Benson, A. (2002). Using online learning to meet workforce demand: A case study of stakeholder influence. Quarterly Review of Distance Education, 3(4), 443−452.

Benson, L., Elliot, D., Grant, M., Holschuh, D., Kim, B., Kim, H., et al. (2002). Usability and instructional design heuristics for e-Learning evaluation. In P., & S. (Eds.), Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications 2002 (pp. 1615−1621).

BNPB. (2020). Badan Nasional Penanggulangan Bencana – Covid19.go.id.

Carliner, S. (2004). An overview of online learning (2nd ed.). Armherst, MA: Human Resource Development Press.

Christiana, E. (2020). Burnout akademik selama pandemi Covid 19. Prosiding Seminar Nasional Bimbingan Dan Konseling Mengukuhkan Eksistensi Peran BK Pasca Pandemi Covid-19 Di Berbagai Setting Pendidikan, 8–15.

Conrad, D. (2002). Deep in the hearts of learners: Insights into the nature of online community. Journal of Distance Education, 17(1), 1−19.

Dalmau, Halfis, & D. (2017). Taking a Fresh Look in Education. Rotterdam: Sense Publishers.

Deci, E. L., & Ryan, R. M. (2016). Optimizing students' motivation in the era of testing and pressure: A self-determination theory perspective In Building autonomous learners. Singapore: Springer.

DeMatthews, D., Knight, D., Reyes, P., Benedict, A., & Callahan, R. (2020). From the Field: Education Research During a Pandemic. Educational Researcher, 49(6), 398–402. https://doi.org/10.3102/0013189X20938761.

Dewi, W. A. F. (2020). Dampak Covid-19 terhadap implementasi pembelajaran daring di Sekolah Dasar. Edukatif: Jurnal Ilmu Pendidikan, 2(1), 55-61.

Dhawan, S. (2020). Online learning: A panacea in the time of COVID-19 crisis. Journal of Educational Technology Systems, 49(1), 5-22.

Dutta, A. (2020). Impact of digital social media on Indian higher education: alternative approaches of online learning during COVID-19 pandemic crisis. International journal of scientific and research publications, 10(5), 604-611.

Firman, & Rahman, S. R. (2020). Pembelajaran Online di Tengah Pandemi Covid-19 Firman1, Sari Rahayu Rahman1. Indonesian Journal of Educational Science (IJES), 2(2), 81–89.

Francis, M. K., Wormington, S. V., & Hulleman, C. (2019). The costs of online learning: Examining differences in motivation and academic outcomes in online and face-to-face community college developmental mathematics courses. Frontiers in psychology, 10, 2054.

Harsasi, M. (2015). The Use of Open Educational Resources in Online Learning: A Study of Students' Perception. Turkish Online Journal of Distance Education, 16(3), 74-87.

Hendrayati, H. & B. P. (2013). Implementasi Model Hybrid Learning Pada Proses Pembelajaran Mata Kuliah Statistika II di Prodi Manajemen FPEB UPI. Jurnal Penelitian Pendidikan, 13(2).

Hiltz, S. R., & Turoff, M. (2005). Education goes digital: The evolution of online learning and the revolution in higher education. Communications of the ACM, 48(10), 59−64, doi:10.1145/1089107.1089139.

Hurlock E.B. (2000). Psikologi Perkembangan. Jakarta: Erlangga.

Hwa, S. P. (2018). Pedagogical change in mathematics learning. Educational Technology and Society, 21(4), 259–276.

Islam, S., Baharun, H., Muali, C., Ghufron, M. I., Bali, M. M. E. I., Wijaya, M., & Marzuki, I. (2018, November). To boost students' motivation and achievement through blended learning. In Journal of Physics: Conference Series (Vol. 1114, pp. 1-11).

Lai, M., Mcnaughton, S., Jesson, R., & Wilson, A. (2020). Learning to Learn. https://doi.org/10.1108/978-1-78973-571-020201008.

Lestari, P. A. S., & Gunawan, G. (2020). The Impact of Covid-19 Pandemic on Learning Implementation of Primary and Secondary School Levels. Indonesian Journal of Elementary and Childhood Education, 1(2), 58-63.

Lie, A., Tamah, S. M., Gozali, I., Triwidayati, K. R., Utami, T. S. D., & Jemadi, F. (2020). Secondary school language teachers' online learning engagement during the Covid-19 pandemic in Indonesia. Journal of Information Technology Education: Research, 19, 803-832. https://doi.org/10.28945/4626

Moore, J. L., Dickson-Deane, C., & Galyen, K. (2011). e-Learning, online learning, and distance learning environments: Are they the same? The Internet and Higher Education, 14(2), 129-135.

Nambiar, D. (2020). The impact of online learning during Covid-19: students' and teachers' per-

spective. The International Journal of Indian Psychology, 8(2), 783-793.

Ningsih, S. (2020). Persepsi Mahasiswa Terhadap Pembelajaran Daring Pada Masa Pandemi Covid-19. JINOTEP (Jurnal Inovasi dan Teknologi Pembelajaran): Kajian dan Riset Dalam Teknologi Pembelajaran, 7(2), 124-132.

Oblinger, D., Oblinger, J. L., & Lippincott, J. K. (2005). Educating the net generation. Boulder, Colo.: EDUCAUSE, c2005. 1 v. (various pagings): illustrations.

Rahmat, A., & Akbar, M. (2019). A Comparative Analysis of English Learning Motivation between the Rural and Urban Students. Metathesis: Journal of English Language, Literature, and Teaching, 3(2), 158-182.

Rapanta, C., Botturi, L., Goodyear, P., Guàrdia, L., & Koole, M. (2020). Online university teaching during and after the Covid-19 crisis: Refocusing teacher presence and learning activity. Postdigital Science and Education, 2(3), 923-945.

Riswanto, A., & Aryani, S. (2017). Learning motivation and student achievement: description analysis and relationships both. COUNS-EDU: The International Journal of Counseling and Education, 2, 42. https://doi.org/10.23916/002017026010

Royle, M. T., & Hall, A. T. (2012). Theory of Needs, Feeling Individually. International Journal of Management and Marketing Research, 5(1), 21–42. https://doi.org/10.1016/j.bmcl.2004.04.023

Rybnicek, R., Bergner, S., & Gutschelhofer, A. (2019). How individual needs influence motivation effects: a neuroscientific study on McClelland's need theory. In Review of Managerial Science (Vol. 13). Springer Berlin Heidelberg. https://doi.org/10.1007/s11846-017-0252-1

Santrock, J. W. (2003). Adolescence: Psikologi Remaja. Jakarta: Erlangga.

Schaufeli, W. B. (2002). Burnout and Engagement in University Students: A Cross-National Study. Journal of Cross-Cultural Psychology, 3(5).

Schunk, D. H. (1991). Self-Efficacy and Academic Motivation. Educational Psychologist, 26(3–4), 207–231. https://doi.org/10.1080/00461520.1991.9653133

Schunk, D. H. (2012). Learning theories: An educational perspective. In Reading (Vol. 5).

Setiawan, B., & Iasha, V. (2020). Covid-19 Pandemic: The Influence of Full-Online Learning for Elementary School in Rural Areas. JPsd (Jurnal Pendidikan Sekolah Dasar), 6(2), 114-123.

Shahroom, A. A., & Hussin, N. (2018). Industrial Revolution 4.0 and Education. International Journal of Academic Research in Business and Social Sciences, 8(9), 314–319. https://doi.org/10.6007/ijarbss/v8-i9/4593

Thorburn, M., & Collins, D. (2003). Integrated Curriculum Models and their Effects on Teachers' Pedagogy Practices. European Physical Education Review, 9(2), 185–209. https://doi.org/10.1177/1356336X03009002004.

Vanslambrouck, S., Zhu, C., Lombaerts, K., Philipsen, B., & Tondeur, J. (2018). Students' motivation and subjective task value of participating in online and blended learning environments. The Internet and Higher Education, 36, 33-40.

Zadina, J. N. (2014). Multiple pathways to the student brain: Energizing and enhancing instruction. In Multiple pathways to the student brain: Energizing and enhancing instruction.

Zhafira, N. H., Ertika, Y., & Chairiyaton, C. (2020). Persepsi Mahasiswa Terhadap Perkuliahan Daring Sebagai Sarana Pembelajaran. Jurnal Bisnis Dan Kajian Strategi Manajemen, 4(1).

Zhang, Q., Bonafini, F. C., Lockee, B. B., Jablokow, K. W., & Hu, X. (2019). Exploring demographics and students' motivation as predictors of completion of a massive open online course. International Review of Research in Open and Distributed Learning, 20(2).