LANGGAM:

(International Journal of Social Science Education, Art and Culture) e -ISSN: 2828-1241 Volume 2 Number 3 (2023) Page 13-20 DOI: http://doi.org/10.24036/langgam.v2i3.40



New Era Curriculum: Offline and Online Interactive Learning Has Been Effective?.

Ade Irma Survani¹, Yulfia Nora², Nurhizrah Gistituanti³, Alwen Betri⁴ ¹Educational Geography Universitas PGRI Sumatera Barat, Indonesia Email: adeirma@student.unp.ac.ic ^{2,3,4} Postgraduate Program, Universitas Negeri Padang, Indonesia

EX No Langgam Journal is licensed under a <u>Creative Commons Attribution 4.0 International</u>.

Abstract. This look at objectives to determine: (1) differences in English studying effects among students who are taught the use of on line and offline getting to know media, (2) variations in mastering effects for college students who've open and closed interpersonal communication, (3) interactions between using learning media and interpersonal verbal exchange in influencing students' English gaining knowledge of outcomes. The quasiexperimental research method and through the necessities had been used, the research speculation has been tested the usage of 2-way ANOVA at a significance degree of α = 0.05 formerly executed the normality necessities test with Lilifors and the homogeneity of variance test with the Barlett take a look at and Fisher's check. The consequences of testing the hypothesis had been received: (1) the getting to know consequences of college students who are taught English the use of on-line studying media are better than offline learning media, that is indicated by means of Fcount = 6.596 Ftable = three.94, (2) students who engage in open interpersonal communication exhibit improved learning outcomes compared to those with closed interpersonal communication, as indicated by an Fcount of 11.18, surpassing the Ftable value of 3.94. Furthermore, there is a significant interaction observed between the use of educational media and interpersonal communication, impacting English learning outcomes, with an Fcount of 68.38, exceeding the Ftable value of 3.94.

Keywords: New Curriculum, Ofline and Online Learning Media

INTRODUCTION:

As a way of global verbal exchange, English need to be mastered actively each orally and in writing. It is not not possible that the speedy development of technology demands to be more proactive in responding to international data flows as an asset in meeting market desires. As the world's lingua franca, English is not best an educational necessity because its mastery is restricted to elements of language understanding however instead as a medium of world conversation.

In line with the evolving times, the utilization of a curriculum that incorporates computer information technology, particularly the internet, for education in Indonesia is continually expanding. "The shift towards e-learning is imperative to enhance the quality standards of education, as it involves utilizing internet technology for delivering learning across a wide spectrum based on three principles: (1) e-learning functions as a network capable of exchanging, storing, distributing, and sharing teaching materials or information, (2) delivery to end-users through computers using standard internet technology, and (3) prioritizing a broader perspective on learning beyond the traditional learning paradigm. Hence, there is a pressing need to optimize information technology for educational purposes" (Rosenberg, 2001:28).

In step with Arikunto (1993:38) that: "teachers are predicted with a purpose to create awesome getting to know tactics to be able to produce scholar achievement. The primary challenge of a instructor is to assist students in gaining knowledge of. There are 3 features that the teacher can play in mastering,

particularly: (1) as a learning clothier, (2) gaining knowledge of manager, and (3) getting to know evaluator". As a clothier or lesson planner, a trainer is expected with a purpose to design mastering in order that it could be completed efficiently and successfully, therefore, it is essential for the instructor to possess ample knowledge of learning principles to serve as a foundation for crafting learning activities. This involves selecting appropriate learning media, defining goals, choosing materials, deciding on a method/approach, and evaluating learning activities As a learning supervisor, a instructor must be able to control the whole manner of mastering activities by using growing dynamic and conducive getting to know situations, in order that instructors are required to constantly display the studying consequences which have been carried out by using college students and usually try and improve them.

Through E-gaining knowledge of Moodle (Modular object orientated Dynamic getting to know surroundings) "which is one of the learning control systems (LMS) it's far was hoping that it may growth the performance of the teaching and mastering system, growth motivation, facilitate active gaining knowledge of, facilitate experimental mastering, be consistent with pupil-focused gaining knowledge of, manual getting to know higher, and mastering at their personal tempo and at a self-adjusted pace will increase knowledge of content material" (MPB ICT, 2010).

Consistent with cybernetic theory, learning is facts processing. In line with this principle, the most vital aspect is the information system from what students will study. Meanwhile, how the mastering manner will take region can be largely determined with the aid of this records machine. Therefore this concept assumes that there is nobody type of getting to know approach that is ideal for all situations. Due to the fact the way of gaining knowledge of is decided by using the data machine. In a more realistic shape, this idea has been developed, among others, through Landa in the shape of an algorithmic and heuristic approach. Algorithmic questioning method is a questioning manner that is systematic, step by step, linear, convergent, directly closer to a certain target goal. In the meantime, the heuristic way of wondering is a divergent way of thinking, main to numerous goals straight away. Expertise a concept that carries more than one meanings and interpretations commonly calls for someone to apply heuristic thinking. (Reigeluth, 1983:163).

Learning is a process regarding modifications in conduct, growing understanding, skills and attitudes which in this situation are bodily, intellectual and emotional because of interactions with the environment. Therefore, if a person who's doing a learning activity and at the cease of the hobby has received a exchange in himself with a brand new experience, then that character may be said to have experienced a gaining knowledge of system. Those adjustments are frequently called gaining knowledge of consequences.

Modifications in conduct because of studying are often called learning effects. Arikunto (2002:132) states that a person's gaining knowledge of outcomes can be within the form of information, talents and attitudes. A person who has found out will revel in a trade in himself inside the form of know-how, competencies and attitudes. Djiwandono (2009: 210) confirms Bloom's opinion, that the cognitive area consists of: information, software, analysis, synthesis and evaluation. The skills in the affective area consist of: acceptance, participation/response, appreciation/willpower, mindset/assessment, organizing values and acting. Then abilities inside the psychomotor area, which includes: perception of motion, The word media comes from the word medium which literally method middleman or creation. Many specialists on learning media provide limitations on the notion of media. Consistent with EACT noted via Rohani (1997: 2) "media is any shape that is used for the manner of distributing facts". While the perception of media in step with Djamarah (1995: 136) is "media is any device that can be used as a channel for messages to acquire gaining knowledge of objectives".

According to Dabbagh and Ritland (2005:15), "online learning refers to an open and distributed educational system that utilizes pedagogical tools, made accessible through the internet and network-based technologies, to facilitate meaningful action and interaction in the formation of learning processes and knowledge. Online learning media can be defined as tools equipped with user-operated controllers, allowing users to manage and access necessary resources independently. For instance, users can download materials for English tense lessons. The benefits of employing online learning media include fostering independent and highly interactive learning experiences, enhancing memory retention, providing diverse learning opportunities with the incorporation of text, audio, video, and animation for information delivery, and facilitating easy communication through features like content updating, downloading, email exchanges, discussion forum participation, chat rooms, and video conferencing."

The definition of on-line studying media in this take a look at is the usage of the Moodle Emastering program which contains English challenge count, to be able to be performed on line. Each pupil might be given the opportunity to be energetic in gaining knowledge of, each to ask questions and to get admission to and download materials from numerous assets via the internet. College students can also work on present questions and might see the effects of the questions which have been worked on, for each pupil getting questions randomly.

Offline mastering media may be interpreted as media that isn't geared up with a controller/navigation device that can be utilized by customers (customers). This media runs sequentially (in series). As an instance, media shows are normally not prepared with gear to control what the consumer will do. Shows run sequentially as a immediately line in order that they can be known as linear media and are typically used when the number of audiences is multiple person.

METHOD

The approach applied in this study is a quasi-experimental method. This method was selected because the treatment class, which includes learning sessions using both online and offline learning media, consists of pre-structured lessons with a focus on student characteristics in interpersonal communication. The research design employed is a 2×2 factorial design, investigating factors influencing English learning outcomes, specifically the use of online and offline learning media, along with interpersonal communication.

learning Media (A) Interpersonal Communication (B)	Online (A ₁)	Offline (A ₂)
Open (B ₁)	A_1B_1	A_2B_1
Close (B ₂)	A_1B_2	A_2B_2

Information :

 A_1B_1 : The outcomes of English learning for students with open interpersonal communication when utilizing online learning media.

 A_2B_1 : The outcomes of English learning for students with open interpersonal communication when employing offline learning media

A₁B₂: The results of learning English using online learning media for students who have closed interpersonal communication

A₂B₂: The results of learning English using offline learning media for students who have closed interpersonal communication

The hypothesis is tested using a two-way analysis of variance (ANOVA) statistical analysis method. This approach is employed to ensure that the final test results obtained by the research subjects are genuinely attributed to the treatment effects in the research process, with a significance level set at $\alpha = 0.05$. If the test results indicate interaction, additional tests are warranted. To utilize two-way ANOVA, certain conditions must be met: (1) the data should exhibit a normal distribution, necessitating a normality test such as the Lillifors test, and (2) the data should demonstrate homogeneous population variance, requiring tests for homogeneity of variance using Fisher's and Bartlet's tests.

For the purposes of testing the hypothesis, it is necessary to formulate a statistical hypothesis:

- 1. Ho : $\mu A1 = \mu A2$ Ha : $\mu A1 > \mu A2$
- 2. Ho : μ B1 = μ B2 Ha : μ B1 > μ B2
- 3. Ho : $A \times B = 0$ Ha : $A \times B \neq 0$

RESULTS AND DISCUSSION

Hypothesis testing was conducted using analysis of variance (ANOVA) techniques. The data necessary for the analysis of variance can be observed in Table 1.

Interpersonal	Media				Total	
Communication	Online (A1)		Offline (A ₂)		rotai	
KI Open (B1)	n _{A1B1}	17	n _{A2B1}	18	nt	35
		37.41		32.5	\overline{X}_{t}	35.01
	SD	7.42	SD	4.27	SD	7.75
	ΣΧ	231	ΣΧ	155	ΣΧ	255.5
	ΣX^2	9173.5	ΣX^2	4895	ΣX^2	9773.75
KI Close (B ₂)	n _{A1B2}	13	n _{A2B2}	12	nt	25
		34.54		27.17	\overline{X}_{t}	31.2
	SD	7.47	SD	4.34	SD	3.15
	ΣΧ	190	ΣΧ	118	ΣΧ	213
	ΣX^2	7470	ΣX^2	3561	ΣX^2	7999
Total	nt	30	nt	30	n _{tot}	60
	\overline{X}	36.3	\overline{X}	31.67	$\overline{X}_{\text{Tot}}$	33.96
	SD	7.23	SD	2.095	SD	3.242
	ΣΧ	225	ΣΧ	183	ΣΧ	876.5
	ΣX^2	8717.5	ΣX^2	5739	ΣX^2	13456.5

Tabel 1 required data

The results of the ANAVA calculations as shown in Table 3 are a summary of the $2x^2$ factorial analysis.

Tabel 3. Summary of 2x2 Factorial Analysis

Laber et banninai	j 01 2/12 1 accorrar i marjois			a j b i b		
Sources	JK.	Dk	RJK	Fcount	Ftable	conclusion
Learning Multimedia	38.44	1	38.44	6.596	3.94	Significant
Interpersonal Communication	65.19	1	65.19	11.18	3.94	Significant
Interaction	398.51	1	398.51	68.38	3.94	Significant
Between groups	502.14	3	38.44			
In groups	559.5	46	5.83			
Total	1061.64	49				

According to the information presented in table 3, the hypothesis testing will be explained as follows:

First hypothesis: Examining the primary hypothesis, which asserts that the academic performance of students instructed in English using online learning tools is superior to that of students taught through offline learning methods. Second hypothesis: Evaluating the second hypothesis, which posits that students engaging in open interpersonal communication demonstrate better English learning outcomes compared to students involved in closed interpersonal communication.

Third hypothesis: According to the 2x2 factorial ANOVA calculation, the Fcount is 11.18, exceeding the Ftable value of 3.94 for degrees of freedom (df) (1.96) and a significance level of $\alpha = 0.05$. The comparison reveals that Fcount = 11.18 is greater than Ftable = 3.94. Consequently, the hypothesis testing rejects Ho and accepts Ha. This leads to the conclusion that, empirically, the English learning outcomes of students engaged in open interpersonal communication surpass those of students with closed interpersonal communication. This is further supported by the average English learning outcomes of students with open interpersonal communication (X = 35.01), which are higher than those of students with closed interpersonal communication (X = 31.2). The assessment of the third hypothesis, which suggests an interaction between online-offline learning media and interpersonal communication in enhancing English learning outcomes, is as follows: Ho: A x B = 0 and Ha: A x B $\neq 0$.

The hypothesis is as follows:

Ho: There is no significant interaction between online and offline learning media and interpersonal communication in influencing students' English learning outcomes.

Ha: There is a significant interaction between online and offline learning media and interpersonal

communication in shaping students' English learning outcomes.

Based on the 2x2 factorial ANOVA calculation, Fcount = 68.38 while the Ftable value = 3.94 for dk (1.96) and significant level

 \Box = 0.05. It turns out that the value of Fcount = 68.38 > Ftable = 3.94, Hypothesis checking out rejects Ho and accepts Ha, so it is able to be concluded that there's an interplay among online-Offline studying media and interpersonal verbal exchange on students' English getting to know outcomes, tested empirically. To see a contrast of the mixture of interactions among online-offline studying media and interpersonal communication on English studying effects, a similarly check changed into accomplished with the Scheffe test. Calculations for the Scheffe check may be visible in Appendix 8. A summary of the calculation results for the Scheffe test can be seen in Table 4.

	~ willing	01 00011011	
hypothe	sis	Fcount	$F_{table}(3,96) \alpha = 0,05$
Ho: $\mu_{A1B1} = \mu_{A2B1}$	Ha: μ _{A1B1} > μ _{A2B1}	11.45	2.70
Ho: $\mu_{A1B1} = \mu_{A1B2}$	Ha: μ _{A1B1} > μ _{A1B2}	12.31	2.70
Ho: $\mu_{A1B1} = \mu_{A2B2}$	Ha: μ _{A1B1} > μ _{A2B2}	5.68	2.70
Ho: $\mu_{A2B1} = \mu_{A1B2}$	Ha: μ _{A2B1} < μ _{A1B2}	1.79	2.70
Ho: $\mu_{A2B2} = \mu_{A2B2}$	Ha: μ _{A2B1} > μ _{A2B2}	5.12	2.70
Ho: $\mu_{A2B1} = \mu_{A2B2}$	Ha: $\mu_{A2B2} > \mu_{A1B2}$	6.43	2.70

 Tabel 4 Summary of Scheffe Test Results

The six combos as compared showed insignificant effects, this changed into due to the absence of extensive variations between the common consequences of studying English within the cells. From the Scheffe test consequences above, it is able to be concluded:

- 1. The common English gaining knowledge of outcomes of students who are taught with on line learning media primarily based on open interpersonal verbal exchange is higher than the average English mastering effects of college students who're taught with offline gaining knowledge of media based on closed interpersonal verbal exchange.
- 2. The common English gaining knowledge of outcomes of college students who're taught with on-line mastering media based on open interpersonal communique is better than the common pupil getting to know outcomes using online mastering media based on closed interpersonal communication.
- 3. The average English getting to know consequences of college students who're taught with online getting to know media primarily based on open interpersonal conversation is higher than the common English getting to know consequences of students who're taught with offline studying media based totally on closed interpersonal verbal exchange.
- 4. The average English mastering outcomes of college students who are taught with on line learning media based on the average getting to know consequences of students who're taught with on-line learning media based totally on closed interpersonal communication are lower than the common English gaining knowledge of consequences of students who are taught with offline gaining knowledge of media based totally on open interpersonal communique.
- 5. The average English gaining knowledge of results of college students who're taught with offline gaining knowledge of media based on open interpersonal verbal exchange is higher than the average English getting to know outcomes of college students who're taught with offline studying media based on closed interpersonal verbal exchange.
- 6. The average pupil English studying consequences with online gaining knowledge of media based totally on closed interpersonal verbal exchange is higher than the common scholar English getting to know consequences with offline mastering media based on closed interpersonal verbal exchange.
- 7. The consequences of the advanced checking out above display that there may be an interaction among interactive learning media and interpersonal verbal exchange on high school college students' English learning consequences

From the results of research records processing performed, there are variations in English mastering outcomes between students who are taught the usage of on line media and students who're taught the use of offline studying media, particularly the common English mastering results of students who're taught using on line gaining knowledge of media are higher than with college students who're taught using offline gaining knowledge of media. This could be seen from the outcomes of the common English rating of students who were taught with on-line mastering media, which become 36.3, whilst the consequences of the common English score of college students who had been taught with offline getting to know media were

31.67. From this information it proves that using online gaining knowledge of media is better at increasing college students' expertise in studying English than using offline gaining knowledge of media. This is reasonable, "due to the fact on line gaining knowledge of media is an open and distributed studying gadget the usage of pedagogical equipment (academic gear), which might be made viable through the internet and community-based technologies to facilitate the formation of gaining knowledge of approaches and understanding thru significant movement and interplay" (Dabbagh and Ritland, 2005 :15).

Utilizing online learning tools for English education enables students to engage directly and exercise immediate control over information resources, empowering them to manage and access relevant content. Learning through online media also facilitates unrestricted interaction between instructors and students, fostering a learning environment centered around the subject matter.

This approach differs significantly from offline learning media, where students lack direct interaction with information sources, and learning is directed by instructors who present information in a linear or one-way manner. In offline learning media, students receive information exclusively from the teacher and materials within the Moodle E-learning program, which are not accessible or downloadable from the internet. Students can only actively inquire about existing materials. In summary, the information obtained is limited to pre-existing data compared to the use of online learning media. Learning with offline media places the teacher in active control of the educational process, with students adopting a relatively passive role in accepting and following the instructor's guidance. The teacher delivers material in a structured manner, aiming for comprehensive mastery by emphasizing academic skills.

However on the average data of college students' English getting to know consequences who are taught with on line learning media based totally on closed interpersonal communique is decrease than the average English getting to know results of students who're taught with offline gaining knowledge of media based totally on open interpersonal conversation, this can occur because there's different factors such as poor learning conditions, assigned teachers who do now not completely recognize the remedy, situations whilst college students are given treatment and so on.

Although in this look at it became normally received information that scholars' English studying results had been higher whilst taught with on line getting to know media than students' English getting to know consequences whilst taught with offline gaining knowledge of media. However, in exercise these learning media have been capable of improve college students' expertise and learning consequences of English. So it could be concluded that the gaining knowledge of consequences of students who are taught English the use of on line studying media are better than the mastering consequences of students who're taught English the use of offline getting to know media.

Based on the findings of this study, it also indicates that students with open interpersonal communication exhibit a better grasp of English lessons compared to their counterparts with closed interpersonal communication. This conclusion is reasonable, given that students who engage in open interpersonal communication typically possess qualities such as openness, empathy, supportiveness, positiveness, and equality, as opposed to students with closed interpersonal communication, who demonstrate the opposite traits (Devito, 2011:285).

The studies findings display that there's an interaction among online-offline getting to know media and interpersonal communique on English getting to know results. Students who've open

interpersonal verbal exchange who are taught with on-line getting to know media reap higher English studying consequences than college students who have open interpersonal conversation who are taught the use of offline studying media. Likewise college students who have closed interpersonal communication who are taught the usage of on line getting to know media achieve lower English studying effects as compared to students who are taught the use of offline mastering media, even though in this have a look at there may be no vast distinction. This shows an interplay among the use of online-offline learning media and interpersonal verbal exchange on college students' English mastering effects.

"on-line-offline studying media are getting to know media that require direct interaction with data sources which will growth curiosity, hobby, creativity, learning motivation for college students who've open interpersonal communique. On-line studying media is an open and disbursed mastering device using pedagogical equipment (educational tools), which are made possible thru the net and network-based technologies to facilitate the formation of studying procedures and understanding through significant action and interplay" (Dabbagh and Ritland, 2005: 15).

To encourage active learning and self-management, it is essential for students engaging in open interpersonal communication to consistently maintain a positive outlook. This positivity helps them actively seek information related to the practical application of English in everyday life, ultimately enhancing their learning outcomes. Conversely, students with closed interpersonal communication tendencies may experience anxiety and stress if they encounter challenges in lesson comprehension. This is because individuals with closed interpersonal communication characteristics are motivated and interested in learning materials when presented through practical, simple, and easily accessible media or tools. For instance, the use of offline media requires students to connect concepts, forming information aligned with predetermined foundational skills

CONCLUSIONS AND SUGGESTIONS

Based on the results of the research and discussion stated earlier, in this study it can be concluded that:

- 1. The use of on line mastering media has a better have an effect on on English studying effects whilst in comparison to the use of offline getting to know media.
- 2. The English mastering results of students who have open interpersonal communication are higher than the English gaining knowledge of results of college students who have closed interpersonal conversation.
- 3. An interplay exists between the utilization of educational media and interpersonal communication, affecting the English learning outcomes of students. This is evident from the outcomes of the subsequent examination, which reveals that student groups with open interpersonal communication achieve superior English learning outcomes when instructed through online learning media as opposed to offline learning media. Conversely, student groups with closed interpersonal communication exhibit better learning outcomes when taught using offline learning media rather than online learning media.

ACKNOWLEDGMENTS

This study was conducted seamlessly, thanks to the support and collaboration of various entities. The author expresses gratitude to the Laboratory in the Geography Education Department at Universitas PGRI Sumatera Barat for their assistance in data analysis. Additionally, appreciation is extended to the Postgraduate Program at Universitas Negeri Padang for providing the opportunity and time to enhance our academic skills.

REFERENCES

AECT, (1987). Defenisi Teknologi Pendidikan : Satuan Tugas Defenisi dan termologi. Jakarta:

Rajawali.

- Arikunto, S. (2008). *Prosedur Penelitian Suatu Pendekatan Praktek Edisi Revisi V.* Jakarta: Rineka Cipta.
- Arikunto, S. (2009). Dasar-Dasar Evaluasi Pendidikan Edisi Revisi. Jakarta: Bumi Aksara.
- Arsyad, A. (2005). Media Pembelajaran. Jakarta: Raja Grafindo Persada.
- Borg. R. W. and Gall M. D. (2015). Educational Research, An Introduction, Fifth Edition: Longman.
- Dabbagh, N. and Ritland. B. B. (2015). Online Learning, Concepts, Strategies And Application. Ohio: Pearson.
- DeVito. Joseph A. (2019). Komunikasi Antarmanusia Edisi Kelima. Alih Bahasa Maulana. Tangerang Selatan : Karisma
- Dick. W and Carey. L (2015). The Systematic Design of Instruction Six Edition. USA: Pearson.
- Djiwandono, S. E. (2016). Psikologi Pendidikan. Jakarta: Gramedia Wiasara.
- Dryden, Gordon and Vos. J. (2018). Revolusi Cara Belajar. Bandung: Kaifa.
- Erlinawati. (2099). "Pengaruh Strategi Pembelajaran Dan Komunikasi Interpersonal Terhadap Hasil Belajar Pendidikan Agama Islam SMP Negeri 3 Rantau Utara Kabupaten Labuhan Batu". Tesis
- Foster. Helen and Cole . Jason (2018). Using Moodle Second Edition. USA : O'Reilly.
- Hamid, A. (2009). Teori Belajar dan Pembelajaran. Medan: Unimed.
- Heinich, R and Molenda. M and Russel, D. J. (2015). Instructional Media and The New Technologies of Instruction. United State: John Willey & Son.
- Julismin. (2019). "Pengaruh Penggunaan Media Grafis Dan Kemampuan Awal Terhadap Hasil Belajar Meteorologi Dan Klimatologi Pada Mahasiswa Jurusan Geografi Semester II Universitas Negeri Medan.": Tesis.
- Karo-Karo, D. (2002). "Pengaruh Pembelajaran Menggunakan Media dan Kecerdasan Emosional Terhadap Hasil Belajar IPA" Medan: Tesis Unimed. Tidak dipublikasikan.
- Margono, S. (2009). Metodologi Penelitian Pendidikan. Jakarta: Rineka Cipta
- Mayer, R. E. (2019). Multi Media Learning Prinsip-Prinsip Dan Aplikasi. Yogyakarta: Pustaka Pelajar
- Miarso, Y. (2014). Menyemai Benih Teknologi Pendidikan. Jakarta: Rajawali.
- Muchtaridi dan Justiana S. (2007). Kimia SMA Kelas X. Bandung: Quadra.
- Muhammad, A. (2017). Komunikasi Organisasi. Yogyakarta: Bumi Aksara.
- Nasution, S. (2018). Berbagai Pendekatan Dalam Proses Belajar dan Mengajar. Jakarta: Bumi Aksara.
- Pelatihan Manajemen Pembelajaran Berbasis TIK Tahun 2010 (MPB TIK 2010) Kemendiknas Direktorat Pembinaan SMA
- Purba, Michael. (2017). Kimia SMA Kelas X. Jakarta: Erlangga.
- Rada, R. (2010). Understanding Virtual Universities. USA: Intellect.
- Rakhmat, J. (2014). Psikologi Komunikasi. Bandung: PT. Remaja Rosdakarya.