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Development of A Knowledge-Sharing-Oriented Online Learning Model to Enhance Student Learning Outcomes

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Abstract

This study investigates the creation of a Online learning model grounded in Knowledge Sharing to improve student learning results. The study utilizes the Lee & Owens (2004) paradigm as a framework for creating an interactive e-learning system that incorporates social media, specifically Instagram, to enhance knowledge sharing. The research employed a quasi-experimental design featuring pretest and posttest assessments involving 30 university students. Results demonstrate a notable enhancement in students' academic performance, with a pretest mean of 66.13 and a posttest mean of 79.60, resulting in a gain score of 0.56. The model received validation from subject matter experts, attaining strong validity ratings (97.33% for content validity and 91.76% for design validity). The findings indicate that a Online learning model that integrates Knowledge Sharing helps enhance academic engagement and increasing learning outcomes.

Keywords: *Online learning, Knowledge Dissemination, Student Academic Performance*

Introduction

The advancement of information technology, particularly the internet, creates chances for enhancing educational paradigms in academic institutions. In early 2023, following the global impact of the COVID-19 epidemic, particularly in Indonesia, national and local governments implemented new educational regulations(Alismaiel et al., 2022). One of these initiatives is the substitution of in-person education with online instruction. The transition to online learning due to the COVID-19 epidemic has catalyzed innovation and transformation in education. Despite existing limitations, implementing this novel learning model has chances to enhance accessibility, flexibility, and efficacy in education moving forward(Sun et al., 2022). Online learning utilizes information technology to facilitate connections between students and teachers via computer devices, hence meeting academic standards(Suhandiah et al., 2022). Consequently, education can still be administered efficiently. Information technology is anticipated to enhance the teaching and learning process(Mario et al., 2023). Presently, there is a transition in the

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educational paradigm from emphasizing the function of the instructor to prioritizing the students, with a proliferation of available learning resources(Cavus et al., 2021). To establish a harmonic teaching and learning process, a system is required that organizes all accessible content and fosters a culture of knowledge exchange between educators and students through available media. (Pei & Wu, 2019). Interviews conducted with 30 students from the undergraduate Information Systems program regarding the implementation of an online learning system based on knowledge sharing reveal the following conclusions: only 30% of students possess a comprehensive understanding of the material and learning objectives; the evaluation of the effectiveness of knowledge sharing in online learning is notably low at 20%; 23% of students report ease of use of the online system; and student responses to interactions in online learning are unsatisfactory, particularly in addressing questions, which stands at 20%. Only 27% of assignments are completed on time and according to the timetable, suggesting that some students struggle to meet deadlines.

E-learning is an educational approach that integrates technology, communication, self-motivation, and efficiency(Cabi & Kalelioglu, 2019). This method encompasses diverse formats, including web-based multimedia, virtual courses, and video conferencing, facilitating remote learning without the necessity of physical co-location (Sapri et al., 2019). The implementation of e-learning can enhance the interaction between lecturers and students in the educational process, as it is not constrained by rigid scheduling limitations(Su et al., 2018). This enables students to learn flexibly, regardless of their location or time (Kumar et al., 2024). Consequently, the utilization of e-learning apps is anticipated to broaden students' perspectives, demonstrating that learning is not confined to the classroom but may occur anywhere and at any time according to their needs(Sugilar, 2021). Students can share information on a range of topics on learning resources and personal growth requirements through knowledge(Broadbent & Lodge, 2021). Direct communication between students and instructors or student discussion boards are two ways that this is accomplished (Polyportis, 2023). The creation of discussion forums that facilitate data collecting and the delivery of solutions pertinent to learning objectives—especially those on real-world issues—is effectively supported by online learning(Müller et al., 2023).

This enables participants to share experiences, debate ideas, and collaboratively develop solutions, all of which are essential elements in problem-based learning. (Cerro Martínez et al., 2020). Online learning encompasses collaboration and transparency in the educational process, communal and group learning, as well as dialogues among students(Hokor, 2020). Online learning can effectively facilitate solutions by involving students in learning assignments pertinent to real-world issues (Sahni, 2023). In a online setting, students can interact and exchange ideas and knowledge to identify pertinent and effective solutions to real-world problems(Susilawati, 2017). This prompts students to consider the application of their learned principles to real-world scenarios (Le et al., 2022). The internet and social networks provide significant potential to create innovative educational methodologies (Buckner et al., 2016) assert that through learning networks, students can access knowledge across various dimensions and examine diverse perspectives and information that may be inaccessible in traditional learning settings(Goyal & Sharma, 2017). Through the utilization of networks, they can also endorse the concept of lifelong learning, wherein students engage in learning not alone for academic objectives but also for developmental ones (Al-Gahmi et al., 2022). (Currently, the incorporation of internet technology for online education has emerged as a prominent trend in the educational sector (Rahman et al., 2022) Learning networks offer numerous significant advantages. These

encompass experiential mastery, wherein students acquire knowledge through diverse experiences and views(Alshanqiti & Namoun, 2020). Furthermore, modifications in pedagogical approaches can be achieved through learning networks, enabling students to tailor their learning habits (Fan & Cai, 2024). Effective persuasion and social cohesion can be fostered through interactions within learning networks, contributing to the establishment of a friendly and inclusive educational environment for students (Trujillo Maza et al., 2016). This knowledge-sharing online learning model aims to address the deficiencies in communication skills between students and lecturers, the necessity for advanced cognitive thinking skills, and the requirement for innovative media that enables students to enhance their cognitive thinking abilities through mutual knowledge exchange via social media(Blayone et al., 2017; Tsybulsky & Sinai, 2022).

Methods

Data Source

The Lee & Owens (2004) development paradigm was employed to facilitate the study and creation of this online learning tool(Aka, 2019). This approach was selected due to its focus on media-based reflection, rendering it appropriate for online learning growth(Lestari et al., 2019). The model's comprehensive and detailed development methodology outlines all the necessary phases for product creation (Lee and Owens 2004). The Lee & Owens development paradigm is delineated as follows:

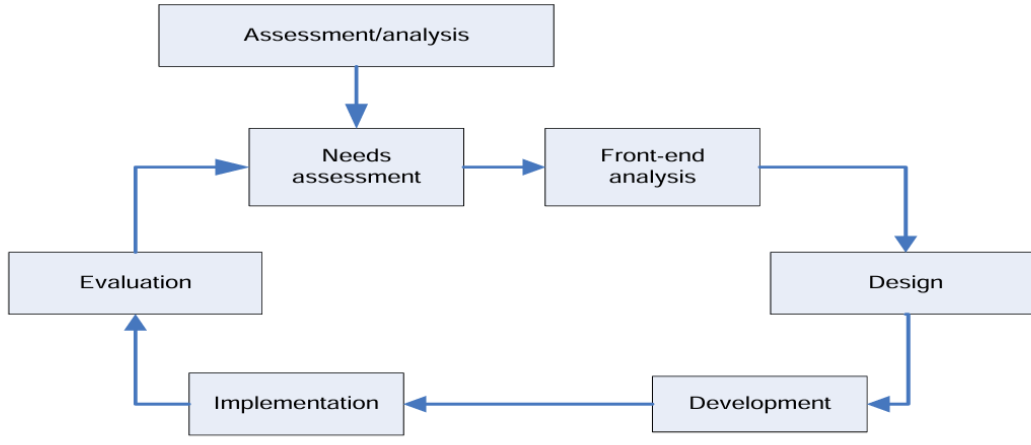

Figure 1. Lee & Owens development

The development phase of this research will encompass five stages, specifically: 1. Analysis phase: Interviews and observations were employed to assess the requirements. From the interviews and outdoor observations, several pieces of information were identified. Development of multimedia learning economic models to improve student learning (Ekawarna et al., 2016). For instance, in Human-Computer Interaction instruction, educators employ PowerPoint presentations to convey content and enhance the lecture module. Nevertheless, online learning lacks resources to enhance communication skills (Ekawarna et al., 2016). The design phase encompasses the preparation of the development schedule, formulating specifications for the media to be created, and organizing the material within the learning medium. Phase of

Development During this development phase, researchers will prepare measures for validating student learning preferences. For product development encompassing material and interface design(Aka, 2019). The presentation of the developed product is executed. evaluation to the product implementation phase is viable. This is the implementation phase of the designed system. Each developed component is organized based on its role in facilitating the learning program in achieving the intended objectives (Lestari et al., 2019). The execution entails verification by subject matter experts, media specialists, and design professionals. 5. Assessment Phase An assessment of the development is performed during the formative phase to ascertain the attainment of development objectives. As previously indicated, four criteria were employed to assess the learners, subject matter experts, learning specialists, and media professionals.

This developmental research employed tools comprising (1) a questionnaire to assess online learning through knowledge sharing; (2) a questionnaire formulated by learning media specialists; (3) a questionnaire developed by learning design authorities; and (4) a questionnaire constructed by learning material experts (Kuswandi et al., 2022). Expert revisions serve as input for the generated items. The last phase involves administering a knowledge-sharing online learning questionnaire of 18 items, alongside a pretest featuring 30 questions pertaining to human-computer interaction. The pretest questions created are uploaded into the knowledge-sharing system for students to complete. The KSS questionnaire is designed to evaluate pupils' cognitive thinking abilities. This research employs KSS and a learning outcomes assessment. The learning design and the result, a online learning system, were validated through evaluations by subject matter experts, instructional design specialists, and media learning experts. The online learning system automatically logs every activity undertaken by students.

Objective	**Aspect sassessed**	**Instrument assessed**	**Data collected**	**Validator**
KSS model development	Validity of learning materials	validation page	Material validity	Learning material expert
	Validity of learning media learning	Sheet validation	Product validity	Media expert learning
	Design validation learning	Sheet validation	Design validity learning	Design expert learning
	Learning preferences	KSS questionnaire	Student response	Students
	Learning outcome test validation	Sheet validation	Learning outcome test validity	Learning material expert
	Learning outcomes	Post-test question	Student response	Students

Table 1. displays instruments for development and data collection.

Data Analysis of Learning Preference Measurement Instruments

In this development research, data analysis was carried out through a quantitative descriptive analysis approach and statistical analysis of data analysis. This research uses data mining to find student models. This data analysis technique is carried out mainly to find student models. This data analysis technique is mainly carried out on learning network measurement instruments and knowledge sharing. The results of this stage of data are divided into two analyses, namely expert analysis and statistical analysis on the results of the instrument test applied to the participants outside the research respondents. The testing of questionnaire instruments on participants other than respondents aims to measure the level of validity and reality of the questionnaire in the trial before the questionnaire is given to the research subjects. Quantitative and qualitative data are collected; The first is analyzed descriptively. Quantitative data on the learning preference instrument uses the Guttman scale, which has the goal of getting firm answers such as Yes and No or Appropriate and Not Appropriate . Positive answers will have a score of 1, while negative answers will have a score of 0**.**

	Score Alternative Answers	
Alternative Answer	**Positif**	**Negatif**
Appropriate	1	0
Not Suitable	0	1

Table 2. Guttman scale

Analysis Procedure

Pre-test Data Normality and Homogeneity The pretest results' normality and homogeneity are tested before the learning media testing phase. To determine whether or not the data distribution is regularly distributed, the normality test evaluates the quantity of data in the data group. In contrast, the homogeneity test seeks to determine whether variance varies between the sets of data that need to be measured. The prerequisites for parametric testing are the normality and homogeneity tests. As the research data to be tested is displayed in

No	**Initial**	**Gender**	**Result Pretest**
1	NB	Female	66
2	NB	Female	70
3	RHB	Male	67
4	VFN	Female	69
5	NPDI	Female	70
6	AL	Female	69
7	GCB	Female	65
8	TD	Male	62
9	IAW	Female	65
10	CHS	Female	66
11	AJF	Male	70
12	NEB	Male	65

13	FCN	Female	73
14	FL	Male	66
15	JB	Male	66
16	AU	Male	68
17	JSKK	Female	70
18	SNK	Female	65
19	JAH	Male	60
20	FPK	Male	62
21	SKM	Male	65
22	DMN	Male	60
23	AS	Female	68
24	AM	Female	64
25	KL	Female	67
26	SDA	Female	70
27	JF	Female	62
28	HF	Male	65
29	NSR	Female	65
30	JF	Male	62

Table 3. The homogeneity test on pretest findings starts with a description of the research data.

It can be seen that the number of participants involved in the study was thirty students. In the homogeneity test, it is stated that the normalization results show significance for the pre-test results on the trial of 0.901.

Levene Statistic	**df1**	**df2**	**Sig.**
.016	1	28	.901

Table 4. Homogenitas varian data pretest

The pretest significance result on the group trial is 0.901> 0.05 so that it can be stated that the pretest data meets the homogeneity of the data or the group trial data has the same variant.

Data Normality Test of Pretest Results The next step after determining data homogeneity is the data normality test. The normality test aims to determine whether the distribution of data used in research is normally distributed or not. The data distribution tested in this study is the pretest result data conducted by thirty students. The number of students who took the pretest.

	Cases

	Valid		Missing		Total	
	N	**Percent**	**N**	**Percent**	**N**	**Percent**
PreTest	30	100.0%	0	0.0%	30	100.0%

Table 5. Number of students who took the pretest

It can be seen that the research data is ready to be processed by the normality test. The results of the average pretest score of 66.13.

			Statistic	**Std. Error**
PreTest	Mean 95% Confidence Interval for Mean	Lower Bound	66.13 64.89	.610
		Upper Bound	67.38	
	5% Trimmed Mean		66.11	
	Median		66.00	
	Variance		11.154	
	Std. Deviation		3.340	
	Minimum		60	
	Maximum		73	
	Range		13	
	Interquartile Range		4	
	Skewness		.054	.427
	Kurtosis		-.442	.833

Table 6. Descriptive average of pretest results

Based on the results of the data normality test, the data significance shows a value of 0.423 indicating a value> 0.05 so that it can be stated that the variables are normally distributed.

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	**df**	**Sig.**	**Statistic**	**df**	**Sig.**
PreTest	.134	30	.180	.965	30	.423

Table 7. Data normalization test

Determination of data normality can also be seen from the histogram data distribution. On the histogram it can be seen that the pretest results have a mean or average pretest result of 66.13. The standard deviation is 3.340.

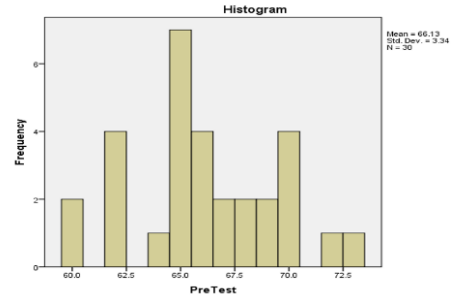

Figure 2. Histogram of pretest results

The normality test can be seen analyzed using the Stem-and Leaf Plot. Stem-and-Leaf Plot analysis aims to present a set of data and data distribution so that no individual data is missing. In the Stem-and-Leaf Plot analysis, it can be seen whether the data distribution is centered or scattered. Data that meet the normality requirements have data distribution with an even frequency and no gaps as shown in Figure 3.

```
PreTest Stem-and-Leaf Plot

 Frequency    Stem &  Leaf

     2,00        6 .  00
     4,00        6 .  2222
     8,00        6 .  45555555
     6,00        6 .  666677
     4,00        6 .  8899
     4,00        7 .  0000
     2,00        7 .  23

 Stem width:        10
 Each leaf:      1 case(s)
```

Figure 3. Stem & Leaf on pretest result data

The next parameter can be seen in the plot diagram of the pretest results. Normality parameters on the plot diagram can be seen from the data to be measured whether it has followed the fit line or not. If the data displayed has followed the fit line, then the data meets normality. The plot diagram can be seen in.

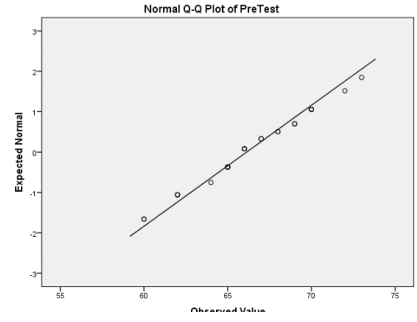

Figure 4. Plot diagram of pretest results

Based on Figure 4. above, it can be seen that the Q-Q Plot diagram, the data value follows the fit-line so that it can be stated that the variable is normally distributed.

Results

Processing of research results was carried out using t-test analysis on pretest results and posttest results. The t-test analysis on the research results aims to test the difference in the average before the learning process and the average after the learning process between two paired samples. The data analysis of this study involved thirty students, where each student took a pretest at the beginning of the study (before learning) and a posttest conducted after learning. the learning model used in this study is a online learning model based on knowledge sharing. The process that each student goes through is; (1) pretest (2) following the learning process using the knowledge-sharing-based online learning model (3) posttest. The pretest results have an average result (mean) of 66.13, while the posttest gets an average value of 79.6.

	Mean	**N**	**Std. Deviation**	**Std. Error Mean**
Pretest Pair 1	66.13	30	3.340	.610
Posttest	79.60	30	4.959	.905

Table 8. Paired sample statistical measurements on research results.

Table 8. shows the results of statistical summaries on both samples, namely pretest data and posttest data, where the average deviation of data on pretest results is 3.340, while the average deviation of data on posttest results is 4.959. This study found a correlation of 0.087. Testing the level of significance using a two-sided test $\alpha = 5\%$, which means that the risk of error in making a decision to reject the correct hypothesis is 5%. The paired sample correlation table shows the correlation between pretest data and posttest data. The correlation result of 0.087 states a strong and positive relationship. Sig = 0.649. A positive correlation coefficient indicates that the data range is not far.

		N	Correlation	Sig.
Pair 1	Pretest & Posttest	30	.087	.649

Table 9. Correlation of paired samples in research results

The results of this study aim to prove the effect of knowledge sharing learning media on the experimental group. In table 10, it can be seen whether there is an effect of using knowledge sharing learning media on learning outcomes.

	Paired Differences					**t**	**df**	**Sig. (2-tailed)**
				95% Confidence Interval of the Difference				
	Mean	**Std. Deviation**	**Std. Error Mean**	**Lower**	**Upper**			

Pretest - Pair 1 Posttest	-13.467	5.734	1.047	-15.608	-11.326	-12.864	29	.000

Table 10. Paired sample t-test results on research results

It can be seen that the significance or probability value obtained shows the value of Sig. (2-tailed) = 0.000 <0.05, so it can be concluded that there is a significant difference in learning outcomes in the pre-test and post-test data. The difference shows that there is an impact on the use of learning media for information exchange on learning outcomes.

The next process is to determine the research hypothesis. The statistical hypothesis prepared in this study is as follows:

H0 : There is no difference between the average score before taking knowledge-sharing learning media and the average score after taking knowledge-sharing learning media.

H1 : There is a difference between the average score before taking the knowledge-sharing learning media and the average score after taking the knowledge-sharing learning media.

The criteria used to test the research hypothesis are as follows:

H0: accepted if $_{table} \leq _{count} \leq _{table}$

H_0: rejected if $_{count} < _{table}$ or $_{count} > _{table}$

and if based on probability, as follows:

H0 is accepted if $P_{value} > 0.05$

H0 is rejected if $P_{value} < 0.05$.

In table 10, the tcount value is -12.864. While in the t distribution table ($\alpha = 5\%$: 2 = 2.5%) two-sided test which has a degree of freedom (df) n-1 of 29, the ttable value is obtained at - 2.045. Therefore, based on the calculation between tcount and ttable and probability. The value of - tcount < - ttable (- 12.864 < -2.045) and Pvalue (0.000 < 0.05), then H0 is rejected. In the t-test, the value of - tcount < - ttable (-12.864 < -2.045) and Pvalue (0.000 < 0.05) which states that H1 is accepted, meaning that there is a difference between the average value before taking the knowledge sharing learning media. The increase in the value of critical thinking skills in the overall research results test can be seen from the gain score value calculated using equation 2 and obtained a gain score value of 0.56 or included in the medium category.

Discussion

Homogeneity test of formative evaluation research data

In table 11, it is known that the significance value (Sig.) of the group result variable in the knowledge-sharing and web-based learning groups is 0.482. The significance value of learning outcomes is 0.482> 0.05 so it can be stated that the variable results of knowledge-sharing and web-based learning groups have the same variance.

Levene Statistic	**df1**	**df2**	**Sig.**
.508	1	28	.482

Table 11. Homogeneity of learning outcome variants

Normality test of formative evaluation research data

The normality test on learning outcomes involved thirty participants (n=30) students. Which consists of knowledge-sharing learning (n=15) and web-based learning (n=15). All students in both learning media groups were involved in the study.

	Cases					
	Valid		**Missing**		**Total**	
	N	**Percent**	**N**	**Percent**	**N**	**Percent**
Knowledge_Sharing	15	100.0%	0	0.0%	15	100.0%
Web based learning	15	100.0%	0	0.0%	15	100.0%

Table 12. Number of participants in the formative evaluation test

The average learning outcome (mean) on knowledge sharing learning media was obtained at 80.33. While web-based learning media amounted to 78.87. The average learning outcomes of knowledge sharing learning media are greater than those of web-based learning media (80.33 > 78.87).

			Statistic	**Std. Error**
	Mean		80.33	1.252
	95% Confidence Interval for	Lower Bound	77.65	
Knowledge_Sharing	Mean	Upper Bound	83.02	
	5% Trimmed Mean		80.31	
	Median		81.00	
	Variance		23.524	
	Std. Deviation		4.850	
	Minimum		71	
	Maximum		90	
	Range		19	
	Interquartile Range		8	
	Skewness		-.152	.580
	Kurtosis		.172	1.121
	Mean		78.87	1.323
	95% Confidence Interval for	Lower Bound	76.03	
	Mean	Upper Bound	81.70	
	5% Trimmed Mean		78.85	
	Median		78.00	
	Variance		26.267	

Web based learning	Std. Deviation	5.125	
	Minimum	71	
	Maximum	87	
	Range	16	
	Interquartile Range	9	
	Skewness	-.080	.580
	Kurtosis	-1.232	1.121

Table 13. Descriptive average (mean) of learning outcomes

The normality test can be seen in the significance value obtained in each group. The significance value can be seen in the results of normality measurements on Kolmogorov-smimov or Shapiro-wilk.

	Kolmogorov-Smirnov[a]			**Shapiro-Wilk**		
	Statistic	**df**	**Sig.**	**Statistic**	**df**	**Sig.**
Knowledge_Sharing	.221	15	.046	.946	15	.463
Web-based learning	.175	15	.200*	.932	15	.292

Table 14. Normality test of formative evaluation data

In Table 14, it can be observed that the significance (Sig.) obtained from posttest data with knowledge sharing learning media (Sig.) is 0.463 and web-based learning (Sig) is 0.292. The significance obtained meets the data normality requirements because the significance obtained by Sig.>0.05.

Formative Evaluation Test of web-based learning with knowledge sharing

After we conducted the homogeneity test and normality test, the formative evaluation was tested using t-test analysis with the aim of understanding the difference between two paired sample groups that had previously experienced two different treatments. Before conducting the t-test, the first step is to conduct a homogeneity test with Lavene's test. Levene's test distinguishes based on the provisions (1) If the variances are the same then the t-test uses Equal Variance Assumed; (2) If the variances are different then the t-test uses Equal variances not assumed. The test hypothesis based on probability is as follows:

H0: Variants in the knowledge-sharing class group and the Web based learning is the same.

H1: Variants in the knowledge-sharing class group and the Web-based learning is different.

The testing criteria based on probability are as follows: Pvalue > 0,05 means H0 is accepted

Pvalue < 0,05 means H0 is rejected.

	Mean	**N**	**Std. Deviation**	**Std. Error Mean**
Knowledge_Sharing				
Pair 1	80.33	15	4.850	1.252
Web base learning	78.87	15	5.125	1.323

Table 15. Knowledge sharing group statistics – web based learning

In table 15 above, it can be seen that the learning outcomes in knowledge sharing (n=15) have an average knowledge sharing learning outcome of 80.33, while the average learning outcome of web-based learning is 78.87. The average test score in knowledge sharing is greater than the learning outcomes of web-based learning. The probability (significance) of the Pvalue obtained is 3.088 > 0.05 so that it can be declared H0 accepted. Therefore, it can be concluded that the probability value of Pvalue of 0.508 is greater than 0.05 so that the variance between the two class groups (knowledge sharing and web based learning) is the same.

	Levene's Test for Equality of Variances		**t-test for Equality of Means**						
								95% Confidence Interval of the Difference	
	F	**Sig.**	**t**	**df**	**Sig. (2-tailed)**	**Mean Difference**	**Std. Error Difference**	**Lower**	**Upper**
Equal variances assumed	.508	.482	.805	28	.428	1.467	1.822	-2.265	5.199
Result_Learning Equal variancesnot assumed			.805	27.915	.428	1.467	1.822	-2.266	5.199

The hypothesis of t-test testing on learning outcomes is arranged as follows:

H0: There is no difference between the learning outcomes in knowledge sharing learning media and web-based learning media.

H1: There is a difference between the learning outcomes in the knowledge sharing learning strategy and the web-based learning strategy.

Based on the results of the comparison between t calculation and ttable (df=28) and probability, it can be concluded that the value of t calculation > ttable (805 > 2.048) and Pvalue (0.000 < 0.05) The results of the comparison state that there is a difference in the average learning outcome in knowledge sharing with the average learning outcome in web based learning, with the average value of knowledge sharing learning outcomes greater than the average learning outcome achieved by web learning Based Learning

Conclusion

The learning method created by this research uses the Lee & Owen development model which consists of five stages: assessment, design, development, implementation, and evaluation. The assessment/analysis process obtains information related to the needs that must be met in the learning process and information related to what will be developed in the research. The need that must be met as a problem to be solved is the need for a knowledge sharing system based on online learning for students' learning preferences. The learning outcome achieved is the ability to think cognitively in sharing knowledge. To get the results of the ability to share knowledge, the

instrument for measuring learning outcomes, namely the ability to share knowledge through learning networks. Online learning, also known as online learning, is a type of learning in which information and communication technology (ICT) is used to build relationships, such as between students and each other, students and teachers, students and learning communities, and other resources Online learning also can support an effective forum for the collection of evidence and presentation of solutions related to learning objectives

Knowledge sharing is a cooperative activity carried out to improve knowledge and skills in order to achieve individual and organizational goals. Knowledge sharing is a social interaction that involves knowledge, experience and skills between employees to improve their competencies According to Knowledge sharing is one of the most important things at the academic institution level, because knowledge sharing is an approach to facilitate knowledge recording and encourage effectiveness in sharing with colleagues and peers. By sharing knowledge, there will be an acceleration in knowledge transfer and the movement of knowledge dissemination. The benefits of knowledge sharing are that the exchange of knowledge can produce new knowledge that can encourage innovation, increase the ability of each member, and reduce the possibility of repeating previous mistakes. Based on research several factors can influence knowledge sharing including sharing opportunities, communication, technology, work culture, attitudes, and sharing motivation. The study found factors that have a dominant effect on building knowledge sharing. Knowledge sharing is one of the important factors in maintaining the entity and increasing competitiveness for each Higher Education. So, online learning based on knowledge sharing is an online learning activity that is carried out to connect individuals or groups between lecturers and students, to support an effective forum that can share knowledge that is carried out to increase knowledge, experience, and skills between lecturers and students to improve their potential. Through online learning based on knowledge sharing, students not only learn from lecturers but also from fellow students who have different experiences or understandings. This creates an inclusive and supportive learning environment, where each individual can contribute according to their abilities and expertise. It is important to remember that online learning based on knowledge sharing is about transferring information and building a sustainable learning community, where collaboration and knowledge exchange continue to encourage growth and self-development. Thus, this approach is highly relevant in supporting effective and sustainable learning in today's digital era.

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Author Contribution

Jimi Asmara, Rusijono, Andi Kristanto and Akhmad Kuncoro contribute to the conception/review, Imma Rachayu, Herlina, Ahsan Muafa contribute to the analysis data, Dydik Kurniawan, Jarot Suseno, Sufandi Iswanto contribute to the data collection and data processing

Conflict of Interest

There is no conflict of interest in the article. All author responsible for the content of the article

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