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A Study on the Effect of Teachers' Technological Teaching Styles on Students' Learning Behavior: A Case Study in Buddhist Sunday School

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Abstract: Teaching style is the most essential factor in the implementation of learning. Learning is not merely a transfer of knowledge but also a process of shaping individuals to think critically, independently, and responsibly. This study aims to examine the influence of technological teaching styles of Buddhist Sunday school teachers on the learning behaviour of Sunday school students. The research was conducted at Buddhist Sunday schools in Pringsewu Regency. This study uses a quantitative approach with a survey method, and data processing is done using SPSS 16. The population in this study consists of 66 Buddhist Sunday school students. The results show that the technological teaching style of Buddhist Sunday school teachers has a positive and significant effect on the learning behaviour of Sunday school students in Pringsewu Regency. It emphasizes that the technological teaching style is one component in shaping students' learning behaviour; however, external factors also play an essential role in developing learning behaviour. The results of this study have a significant impact on the context of shaping students' learning behaviour. It can be applied in the Buddhist Sunday School environment in Pringsewu Regency, where students are encouraged to be more active and independent in the technology-based learning process.

Keywords: technological teaching style; learning behaviour; Buddhist Sunday school

1. Introduction

Education is a significant activity that prepares one for life in the future [1]. In education, there are three main paths known as the three centers of education by Ki Hadjar Dewantara, namely formal, informal, and nonformal education [2]. Formal education is a learning activity conducted by studying in a structured school environment [3]. Informal education as education obtained from the family and environment [4]. The family, education, and the environment are crucial in ensuring that values and attitudes are instilled early. The family is the first and most important educational environment, because the educational academic family existed before humans knew other educational institutions and academic environments; students also receive advice encouraging them to study hard [5]. It is contained in the Sigalovada Sutta. The Buddha said that family relationships are how an intro serves the husband, the husband serves the wife, and how

a child respects their parents. In addition, people are also responsible for educating by instilling values that encourage the development of their spiritual and moral potentia.

Nonformal education is defined as regular and directed communication outside of school, where individuals receive information, knowledge, training, guidance, and life needs [6]. Nonformal education, such as Buddhist Sunday School service, instills spiritual and moral values in children's lives early, with a planned approach and following the community's needs [7]. Buddhist Sunday school instills spiritual and moral values in children's lives from an early age [8]. In Buddhist Sunday School activities, students are expected to be actively involved in learning activities, appreciate and pay attention to the teacher's explanations, follow the teacher's instructions, and show respect and responsibility in every task given [9]. As stated in the Maha Manggala Sutta, it is explained that educating children well and providing moral guidance and spiritual values are among the greatest blessings in life. It aligns with the Buddhist Sunday School's role in instilling spiritual and ethical values early on. The success of Buddhist Sunday School can be influenced by the teaching style used by the teacher. Teaching style is an approach used by a teacher in teaching material that significantly influences students' behavior [10]. The technological teaching style includes using technical tools and methods in teaching materials, such as projectors, videos, digital defense applications, and the internet in the teaching process. Using technology in teaching styles helps create a more dynamic and interactive learning atmosphere. The use of technology in teaching is expected to increase students' interest and enthusiasm [11]. In Kalama, Sutta teaches that it is essential to use a wise and appropriate approach to guide students by respecting the individual. It means that teachers must respect the differences between each individual and pay attention to how they teach their students. It reflects that in the educational process, teachers not only teach knowledge but also respond to the needs and potentials of students to develop [12].

In the context of Buddhist Sunday School, significant challenges are faced in conveying moral and spiritual values to students and spiritual students to students [13]. Student involvement in learning is often influenced by the teaching used. As observations in the field show, there are still students who are less enthusiastic and active in participating in learning, which may be due to the teacher's less interactive teaching style. In addition, the lack of technology in the teaching and learning process is another factor that hinders students [14]. The learning behavior of students at Buddhist Sunday School is greatly influenced by the teacher's teaching style and the quality of the facilities available [15]. Therefore, improving the quality of learning at Buddhist Sunday Schools must involve improvements in teachers' teaching styles, facilities, and support resources [16]. Thus, it is hoped that students can show more upbeat and active learning behavior during the activity [17]. Based on the description above, the researcher is interested in studying more deeply the influence of the technological teaching style of Buddhist Sunday school teachers on the learning behavior of Sunday school students in Pringsewu Regency [18]. Therefore, it is necessary to research to reveal the problem of student learning behavior as the primary variable linked to other variables suspected to be able to overcome the problem of learning difficulties, namely technological teaching style [19]. The expected final result of this study proves the hypothesis regarding the influence of

the involvement of Buddhist Sunday students in the technological teaching style of Buddhist Sunday school teachers on the learning behavior of Pringsewu Regency.

2. Method

In this study, the researcher used a survey method with a quantitative approach and data processing techniques in the form of questionnaires with a total of 74 questions using a Likert scale in the answers. In this study, the population studied was 66 Buddhist Sunday School students in Pringsewu Regency, and all of these students were sampled using a saturated sampling technique. Sampling The saturated sampling technique is used to determine a sample when all population members are sampled . If the population is less than 100, the entire population is used as a sample [20]. The research design carried out in this study is related to making observations, editing the background of the problem, identifying the problem, formulating the problem using a theoretical foundation, or looking for theories about technological teaching styles and student learning behaviors, including exploring theories, making research methods, and making decisions. Furthermore, this researcher will be involved in determining variables, making instrument grids, collecting data through questionnaires, analyzing data, and preparing conclusions and suggestions. The data analysis used in this study uses simple linear regression analysis to obtain higher and more reliable analysis results. The study data analysis was done using the SPSS 16 data processing program.

3. Results

Based on the trial instrument measuring the influence of the technological teaching style of Buddhist Sunday school teachers on students' learning behavior, from a total of 80 items, 74 were found to be valid, and six items were invalid. In the technological teaching style variable, 39 items were valid, and three items were invalid, while in the learning behavior variable, 35 items were valid, and three items were invalid. Certain items were deemed invalid by comparing the r table value for 37 respondents with a significance level of 0.005, which is 0.324. If r is calculated < r table, the items are considered invalid. The researcher may discard the invalid items, leaving 74 valid items out of the original 80. The instrument reliability test and the reliability statistics obtained using SPSS 16.0 yielded a Cronbach's alpha value of 0.962. Since the significance value is > 0.05, the instrument is declared reliable. It can be concluded that the research instrument used in this study meets the requirements and is trustworthy.

Table 1. Reliability Test of the Instrument

Reliability Statistics	
Cronbach's Alpha	N of Item
.962	74

(Source: Data Processed Using SPSS 16.0)

The normality test was conducted using the One-Sample Kolmogorov-Smirnov test. The requirement is that the sample data originates from a normally distributed population, with a significance level of 0.05 or 5%. Based on the normality test results obtained from

66 respondents, the significant value (2-tailed) is 0.621, which means that 0.621 > 0.05. Therefore, it can be concluded that the data is usually distributed. The results of the normality calculation using the One-Sample Kolmogorov-Smirnov test are presented in the following table.

Table 2. Normality Test

One-Sample Kolmogorov-Smirnov Test		
N		Unstandardized residual
		66
Normal Parameters[a]	Mean	.0000000
	Std. Deviation	8.59297710
Most Extreme Differences	Absolute	.093
	Positive	.080
	Negative	-.093
Kolmogorov-Smirnov Z		.754
Asymp. Sig. (2-tailed)		.621
a. Test distribution is Normal.		

(Source: Data Processed Using SPSS 16.0)

The homogeneity test was conducted as a prerequisite for the independent sample test using the Compare Means One-way ANOVA method. In this analysis, the variance of the population is assumed to be equal. The testing criterion is that if the value is more significant than 0.05 or 5%, it can be stated that both data groups are the same. The homogeneity test results show a value of 0.297, which is also greater than 0.05, indicating that the data related to technological teaching styles and students' learning behaviors have the same variance. It can be further clarified in the following table of variance homogeneity tests.

Table 3. Homogeneity Test

Test of Homogeneity of Variances			
Variabel X towards Y			
Levene Statistic	df1	df2	Sig.
1.097	1	130	.297

(Source: Data Processed Using SPSS 16.0)

Table 4. Regression Equation Output

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	34.179	10.516		3.250	.002
	Variable X	.676	.071	.765	9.508	.000
a. Dependent Variable: Discipline of Students						

(Source: Data Processed Using SPSS 16.0)

Based on the output results from the coefficients, a constant value of 34.179 is obtained, indicating that when the technological teaching style has a value of 0, the

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consistent value of the variable student learning behavior will be 34.179. The regression coefficient for the technological teaching style variable (X) is 0.676, meaning that for each unit increase in the technological teaching style, the student learning behavior variable (Y) will increase by 0.676. From the data analysis, the calculated t-value is 9.508, and the t-table value with degrees of freedom (df) = n - 2, where df = 64, is 1.669 with a significance level of 0.000. Since the absolute value of the calculated t (9.508) is more significant than 1.669 and the significance level (0.000) is less than 0.05, we reject the null hypothesis (Ho) and accept the alternative hypothesis (Ha). From these results, it can be concluded that the technological teaching style has a positive and significant effect on students' learning behavior in the Sunday School of Pringsewu Regency. The hypothesis testing criteria use a 5% alpha level (0.05), meaning that we reject Ho if the significance is ≤ 0.05, as shown in the following ANOVA table:

Tabel 5. Ouput Analisis Anova

ANOVA[b]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6779.433	1	6779.433	90.401	.000[a]
	Residual	4799.552	64	74.993		
	Total	11578.985	65			
a. Predictors: (Constant), Technology Teaching Style						
b. Dependent Variable: Student Learning Behavior						

(Source: Data Processed Using SPSS 16.0)

From the ANOVA output analysis, the calculated F-value is 90.401 with a significance level 0.000. Therefore, there is no need to match the F-value with the F-table, as SPSS has already provided the significance value. The significance level of 0.000 < 0.05 indicates that we reject the null hypothesis (Ho) and accept the alternative hypothesis (Ha). Teachers' technological teaching style significantly influences students' learning behavior in the Sunday School of Pringsewu Regency.

Table 6. Values of R Square Determinant Coefficient

Model Summary[b]				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.765[a]	.585	.579	8.660
a. Predictors: (Constant), Kegiatan Retret				
b. Dependent Variable: Kedisiplinan Perserta Didik				

(Source: Data Processed Using SPSS 16.0)

The coefficient of determination indicates that the R Square value is 0.585. It means that 58.5% of the variation in students' learning behavior is influenced by the technological teaching style of Sunday School teachers, while the remaining 41.5% is influenced by other factors not examined in this study.

Based on the data analysis and hypothesis testing results, the technological teaching style's vivacious and significant effect on students' learning behavior was found. This finding indicates that the research hypothesis is accepted, meaning that the theoretical

assumptions underlying this study have been validated through empirical data from the respondents. Further discussion regarding these research results will detail the impact of the technological teaching style on students' learning behavior. From the simple linear regression analysis, the t-value obtained is 9.508, with a significance value (p) of 0.000 < 0.05. It indicates that the technological teaching style positively and significantly affects the learning behavior of Sunday School students in Pringsewu District. The magnitude of the effect can be observed from the R Square value of 0.585. It means that 58.5% of the variation in students' learning behavior is influenced by the technological teaching style of Sunday School teachers, while the remaining 41.5% is influenced by other factors not examined in this study. It is consistent with the research conducted by Salsabila & Agustian (2021), which states that technology enables students to learn independently by utilizing online platforms such as e-learning, which can be accessed anytime and anywhere. Teachers can prepare materials that suit students' abilities and needs, allowing faster learners to receive additional tasks while those who need more time can learn at their own pace [22]. The use of information technology in education can significantly enhance students' motivation. The application of this technological teaching style not only increases motivation but also has a direct impact on students' learning behavior [23]. In Sunday School, students demonstrate increased active participation in learning, such as asking more questions, giving opinions, and collaborating with their peers [24].

The application of technology in education can be linked to the principle of satipattana (mindfulness), taught by the Buddha in the *Satipattana Sutta*. In this *sutta*, the Buddha mentions, "Here, a bhikkhu establishes mindfulness on the body, feelings, thoughts, and phenomena, with full awareness. He dwells, clearly understanding what is happening within himself". This principle teaches that by using technology in learning, students can more easily focus on and understand what they are studying, thereby enhancing the quality of their attention to the material presented [25]. It underscores the importance of mindfulness (sati) towards the body, feelings, thoughts, and phenomena. The application of technology can help students to be more focused and fully present in the learning process, just as the principle of sati teaches one to concentrate on the present moment [26]. Mindfulness in learning can enhance the quality of understanding and student engagement. Furthermore, technology also helps students to be more disciplined in completing tasks [27]. With access to online learning platforms, students can manage their time and study methods, contributing to an increased sense of responsibility in completing assignments [28]. The principle of discipline in Buddhist teachings aligns with students' responsible attitudes towards their tasks, creating a more productive learning environment. When students are free to manage their study time, they tend to show a higher level of responsibility in completing academic assignments [29].

According to a study conducted by [30], students who learn using technology-based media feel happier and more motivated compared to the monotonous conventional methods. Engaging in learning media can reduce student boredom and increase their interest in the subjects, leading to improved learning outcomes. Thus, this study indicates that applying a technology-based teaching style enhances motivation and understanding of the material and improves students' learning behaviors, such as increasing

participation, discipline, and engagement in the learning process [31]. Applying a technology-based teaching style also creates a more interactive and collaborative environment. Students can interact with learning materials through various media, including videos, online quizzes, and discussion forums. This interaction encourages better understanding and builds social skills and collaboration among students. Research by [32] shows that an interactive learning environment increases student motivation and strengthens their learning experience.

4. Conclusion

Based on the data analysis results and hypothesis testing, a positive and significant influence was found between technology-based teaching styles and students' learning behaviors. This finding indicates that the research hypothesis is accepted, meaning that empirical data from respondents validate the theoretical assumptions underlying the study. Further analysis reveals that technology-based teaching styles significantly contribute to students' learning behaviors, while other factors outside this study also play a role. Technology enables students to learn independently through online platforms that can be accessed anytime and anywhere. The use of technology in learning also enhances students' motivation and has a direct impact on their learning behaviors. In the context of Sunday School for Buddhists, implementing technology in teaching styles enhances students' active participation, such as their ability to ask questions, express opinions, and collaborate with peers.

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