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The Effect of Team Games Tournament Model-Assisted Articulate Storyline Media on Improving Outcomes and Interest in Learning Javanese Script Material in Elementary School

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Abstract: Javanese language is a national culture that needs to be protected and preserved to not lose its identity. In the Javanese script, education includes writing and reading skills starting from elementary school. This study was motivated by the difficulty of understanding Javanese script material in the classroom. This study aims to determine the Team Games Tournament learning (TGT) model using Articulate Storyline media to enhance student learning outcomes and interest in elementary school. The research method used is quantitative with a Quasi Experiment Design. The sampling technique used was purposive random sampling with two class samples for research, the experimental and control classes as a comparison. The sample consists of 50 fifth-grade students, with each class consisting of 25 students. The instruments used were test questions and interest questionnaires to measure the specified variables. Data analysis techniques in statistical testing are instrument, prerequisite, and hypothesis tests. The average post-test final result in the experimental class was 47.36, and the control class was 36.1. The results showed an influence on the TGT learning model with Articulate Storyline on improving learning outcomes and interest of elementary school students.

Keywords: Javanese Script, Articulate Storyline, Outcame, Interest, TGT

1. Introduction

Teachers educate students to preserve the Indonesian culture, the Javanese language. As one of the national cultures, the Javanese language is significant to protect and not lose its identity. The efforts to preserve the Javanese language has been initiated by the community and the government, one of which was through the education route of learning local content (Latifah, 2019). This educational path enables students to learn and apply Javanese daily. The Javanese script, according to the Regulation of the Governor of Central Java Number 57 of 2013 in Article 1 states that the Javanese script *asdo it or* letters that have characteristic shapes, graphic signs, systems, and special writing arrangements used for the Javanese language and literature (Regulation of the Governor of Central Java, 2013). Based on the learning materials of the educational curriculum for learning local content subjects (Javanese), then from third grade in Elementary Schools have started to be introduced to the Javanese script in both writing and reading ((Al Masjid & Arief, 2016). Javanese script learning begins with recognizing, writing, and reading from simple words to perfect sentences.

Teaching and learning activities in the classroom are reciprocal activities or activities between students and teachers, hence, it is not only the teacher but also the students who are active in learning. The success of teaching and learning activities is determined apart from students and teachers, also determined how the effectiveness of variations in class learning methods, the level of students participation in learning, and the media used to help students understand the material. One indicator of learning success can be seen in the level of student achievement or learning outcomes**.** Learning outcomes are competencies or skills that students can achieve after participating in teaching and learning activities designed and implemented by teachers and students in a particular school and class.

The model definition of a Team Games Tournament (TGT) by Wahyuningsih et al. (2021) was designed to help students learn more relaxed while fostering responsibility, cooperation,

healthy competition, and learning involvement. The use of the TGT model provides a challenge for students to compete healthily individually and in groups while providing opportunities for all students to participate in learning. Learning media are defined as physical and technical objects in the learning process that can help teachers make it easier to convey subject matter to students so as to facilitate the achievement of learning objectives that have been formulated (Novita et al., 2019). Learning media is also needed to help students understand a concept in learning. Interactive media needs to be given to students when learning. The function of learning media includes attentional, affective, cognitive, and compensatory functions.

1.1. Problem Statement

One indicator of learning success can be seen in student proficiency levels or learning outcomes. Learning outcomes are the level of success of students in understanding material expressed in the form of scores or grades from test results regarding certain material (Novita et al., 2019). Aspects of learning outcomes include (1) Cognitive, which is closely related to the intellectual and thinking competence of students, (2) Affective, which is related to student motivation, interests, and behavior, (3) Psychomotor, which is related to students' physical activity.

Students still face difficulties in understanding Javanese script material in class, causing the expected learning outcomes to not be achieved. Various problems found in the learning process are related to students' learning interests. Lack of interest in following the learning process affects students' attention to the material provided. In the learning process, students show little interest in the material presented by the teacher. Thus, student achievement becomes less good.

Difficulties are also experienced because students rarely use Javanese script daily. Javanese script is used by the Javanese. The Javanese script was developed during the Majapahit kingdom to preserve the writing tradition and was rearranged during the Islamic empire in Java. In the school environment, it shows that the existence of Javanese language learning, based on the results of supervisory evaluations related to the assessment of the implementation of Javanese learning, has not achieved satisfactory results. The low interest of students in Javanese subjects, especially Javanese script material, is because students experience difficulties in aspects of writing Javanese script.

Most students consider the Javanese script to be difficult material because in writing it has complicated rules and has a similar form in each script. There are *pasangan* and *sandhangan* in the Javanese script, which allow the entire script to form a word and sentence that can be read. Understanding the material cannot be maximized because students already consider Javanese script material to be complicated, and as a result, students' interest in paying attention to learning decreases. The source of the Javanese language library and the use of attractive, interactive, and modern learning media for the Javanese language are low, which is of the problems faced in the Javanese script.

Based on the results of observations and interviews with students and teachers in the fifth grade, learning Javanese script was less attractive to students. The teacher stated that the level of student interest in learning Javanese script in class was less than 50%. Most of the students said the Javanese script was a complicated and considered to be unpleasant material. This causes the learning outcomes of most students to be insufficient. The Minimum Completeness Criteria is 70. Of the 24 students, only 67% (16 students) meet the minimum score (≥70), and 33% (8 students) do not meet the minimum score (≤70).

One of the factors that cause learning difficulties is internal factors. Factors originating from within the students that influence the teaching and learning process in Javanese language and Javanese script material are attitudes towards learning, motivation during learning, interest in learning, social adjustment with group mates in class, student intelligence level, and physical condition. The teacher's efforts in dealing with students who have difficulty learning Javanese script have been well done by the teacher, especially when they used learning

media in the form of script-paste posters. However, the teacher does not change the learning model used in class, and the media is less interactive.

Students' interest in learning also affects learning outcomes. Interest is defined as a form of someone's interest in paying attention or getting involved in learning activities. The definition of interest is the attitude of the student's tendency to pay attention to a lesson, giving rise to a sense of liking and enthusiasm for participating in learning activities.

According to Festiyed et al. (2019), indicators of interest in learning are students' interest in enjoying a lesson, objections in obtaining benefits for the students themselves, and active involvement of students in the learning process. Another indicator of interest in learning is the attention and focus of students when learning material takes place. Javanese script material in elementary schools includes writing and reading, which are given on an ongoing basis. The ability to learn is both reading and writing. The Javanese script begins with pure Javanese script material or scripts that have not been given any additions called *Carakan/Nglegena*, which totals 20 letters, then the material covering the *sandhangan Sandhangan Swara, Sandangan Panyigeg Wanda, and Sandangan Wyanjana* each of which is still divided into types, then the material for the pair, which totals 20 letters (Damariswara, 2020).

1.2. Related Research

Kristiana et al. (2017)research proves that the Team Games Tournament (TGT) learning model improves student learning in the excretory system material. This was evidenced by an increase in post-test scores and activeness scores in students. The average number of scores achieved increased from 59.5 to 75.83, and the average student activity score was 80.57. Meanwhile, a study conducted by Sudimahayasa (2015) proves that the TGT model improves learning outcomes, participation, and attitudes in students. This is evidenced by an increase in each cycle, from the pre-cycle of 52.19, increasing to 76.41 at the end of the cycle, and experiencing an increase in student participation reaching 78.13% in class.

A study was conducted by Yolanda et al. (2022) showed an improvement in students' speaking skills. This is evidenced by the increase in the average pretest and posttest scores on aspects of students' speaking skills from 68.4 to 83.4. Moreover, a research by Setyaningsih et al. (2020) shows that the interactive learning media Articulate Storyline increases student motivation and learning outcomes. This is evidenced by the increase in pretest and posttest scores, from 63.33 to 84.89.

The research conducted by Sholikhah (2017) shows that the stencil Javanese script card media improves students' Nglegena Javanese script writing skills. This is evidenced by an increase in the value of each cycle. In cycle I it increased from 55.35 to 66.07 and in cycle II it reached an average of 77.35. In contrast, a study by Ariani & Agustini (2018) proves that there was an increase in physics learning outcomes with an average post-test of experimental class I students that are equal 78.7 which is greater than the average post-test score of experimental class II students of 73.

1.3. Research Objectives

In previous research, there has been no research that discusses the use of the TGT learning model by utilizing interactive media articulate storylines in learning Javanese script, especially in elementary schools. This has led to the interest of researchers to better research learning models and media for prospective elementary school teacher students. Therefore, the formulation of the problem in this study is the attainment and improvement of the ability to understand mathematical concepts of elementary school candidates.

2. Theoretical Framework

The learning model is a learning activity plan conceptually arranged to achieve expected learning outcomes. Model learning Team Games Tournament (TGT) is learned in the form of an academic tournament with a quiz system and group scores. The learning support media used is the media Articulate Storyline which presents a material (Juhaeni et al., 2021).

2.1. TGT Learning Model

The model learning Team Games Tournament (TGT) is learning in the form of an academic tournament using a quiz system and student group scores. Panggabean et al. (2021) stated that the definition of the TGT learning model can involve the activities of all students regardless of status, tutoring among students, and learning that contains elements of play. The understanding of the TGT model is learning with a group formation system. The TGT model is heterogeneous with more than three members per group. The activities in the TGT model add a dimension of fun and excitement achieved through the course of a game or tournament. Group members will try to help each other in obtaining tournament scores, helping prepare to study each other's problems, and there will be the formation of individual responsibility (Sudimahayasa, 2015).

The definition of the TGT model in the opinion of Panggabean et al. (2021) is learning activities with games designed to help students to learn more relaxed and relaxed while fostering responsibility, cooperation, healthy competition, and learning involvement. The use of the TGT model provides challenges for students to compete individually and in groups while providing opportunities for all students to participate in learning. Advantages of the TGT model include being able to create a pleasant learning atmosphere, educating students to be able to respect one another, students' motivation becoming higher, and learning in class becoming less monotonous. The steps in the TGT learning model include (1) Classical class settings and initial instructions, (2) Class presentations, (3) Group study and team formation, (4) Games, (5) Tournaments, and (6) Awarding group.

2.2. Media Articulate Storyline

According to Setyaningsih et al. (2020), Articulate Storyline is one of the multimedia authoring tools which can be used to create interactive learning media by incorporating combined content from images, text, audio, graphics, video, and animation. According to Juhaeni et al. (2021), Articulate Storyline is software that can be used as a learning support medium in presenting the material. In line with Yolanda et al. (2022), Articulate Storyline is one of the learning media that has been developed into e-learning media using classical computer devices.

Based on this opinion, the researcher can conclude that the Articulate Storyline is an interactive learning media that can present material by incorporating various content. For the media Articulate Storyline the device requirements are: (1) PC with 1.0 GHz CPU processor of at least 32-bit, (2) Minimum memory capacity of 512 MB, (3) Available storage space of at least 250 MB, (4) Display screen resolution of at least 1024 x 768, (5) Supported by multimedia in the form of a sound card, microphone, and camera or video recorder, and (6) Supported by Adobe Flash Player 10 or later version. The advantages of using Articulate Storyline are: (1) Simple interface, (2) Easy-to-use and complete features, (3) Media can be published, (4) Can be accessed offline, and (5) Can create interactive presentations.

2.3. Learning Outcomes

According to Arif & Sulastri (2006), learning outcomes is a final evaluation of the process and the introduction of learning that has been done repeatedly. Learning outcomes will be stored for a long period of time in the personal learners. Meanwhile, according to Hasibuan (2015) learning outcomes are students' abilities to cover cognitive, affective, and psychomotor aspects, which can be seen through learning evaluation activities.

The cognitive aspect is closely related to one's intellectual ability and thinking competence (Nurgiyantoro, 2016). In this aspect, students are expected to be able to walk into thinking processes such as remembering, understanding, connecting, analyzing, and solving problems. In line with Sudjana (2016) regarding levels in the cognitive aspect, there are six levels, namely (1) Knowledge (remembering, memorizing), (2) Understanding (interpreting), (3) Application (using concepts, solving the problem), (4) Analysis (describe the concept), (5) Synthesis (combine), (6) Evaluation (prove, validate).

2.4. Interest to Learn

Interest is basically a concern that has a special nature. Muliani & Arusman (2022)defines interest as as a form of individual interest in paying attention or getting involved in learning activities. Friantini & Winata (2019) stated that interest is the state of students who can generate affection and enthusiasm within themselves without coercion in carrying out activities that can be measured. Meanwhile, interest is the tendency to pay attention continuously to something (Inggriyani et al., 2019). Indicators of student interest in learning consist of (1) A sense of pleasure in participating in learning without coercion, (2) An interest in students that creates an active attitude in learning, (3) An attitude of paying attention and concentrating on the learning process, (4) An involvement and participation students in the learning process followed, (5) There are objections so that students can assess the benefits of a lesson for themselves.

2.5. Javanese in Elementary School

According to Mahardika et al. (2020)Javanese language learning is learning given to improve students' abilities and skills to communicate properly and correctly in Javanese, both orally and in writing, and to encourage appreciation of Javanese literary works. Javanese is one of the local content (*Mulok – Muatan Lokal*) in the curriculum structure at the education levels of SD/ MI, SMP/MTs, and SMA/MA/SMK, and is compulsory in all levels of education in Central Java Province. Components in Javanese include language, literary, and cultural abilities which include aspects of listening, speaking, reading, and writing. Aspects of writing and reading in Javanese include the ability to understand Javanese script material. According to (Latifah, 2019), the objectives and functions of learning Javanese are: (1) As a means of fostering a sense of pride in the Javanese language, (2) As a means of increasing knowledge and skills to preserve and develop Javanese culture, (3) As a means of improving knowledge and skills for mastering science, technology, and art, (4) As a means of disseminating the use of the good and correct Javanese language, for daily needs, (5) As a means of understanding Javanese culture through Javanese literature.

2.6. Javanese Script in Elementary School

Javanese language learning is provided continuously and in harmony from Elementary School to High School based on predetermined basic competencies). Meanwhile, Javanese script material is given in elementary schools from lower to high grades. The material in the high class includes the ability to read and write the Javanese script *Carakan*, the Javanese script *sandhangan* used, and the Javanese script pairs. Javanese alphabet as*do it* is an unaccounted-for character *sandhangan*. There are 20 letters in this script, which are referred to *asdo it* consists of letters *ha, na, ca, ra, ka, da, ta, sa, wa, la, pa, dha, ja, yes, nya, ma, ga, ba, tha, nga*. Whereas andhangan and couple used to vary the manner when forming a word or sentence. Kind of *sandhangan namely, sandhangan Swara (sandhangan wulu, pepet, suku, taling, taling tarung), Sandhangan Panyigeg Wanda (layar, wignyan, cecak, and pangkon), Sandhangan Wyanjana (cakra, keret chakra, pengkal*). While pairs are used to turn off vowels in *carakan*, the number is the same as the character legend, which is 20 letters.

3. Method

3.1. Research Design

This research is a type of quantitative experimental research using research methods Quasi Experiments. Furthermore, the experimental group was treated in the form of a learning model Team Games Tournament with an Articulate Storyline, while the control group was treated with an expository learning model with sticky poster media. Then both are done post-test to find out the results of the treatment. The design of this study is either the experimental group or the control group pretest and posttest. The research design is presented in Table 1 below

Table 1. Research Design

Group	*Pretest*	*Treatment*	*Post-test*
Experiment	O_1	X_1	O_2
Control	O_1	X_2	O_2

Information:
O: Pretest-posttest results and learning interest
X_1: Learning with the TGT model and Articulate Storyline
X_2: Expository Learning

3.2. Participant

The participants in this study were elementary school students in Kartasura District. The samples taken were Class 5A with a total of 25 students as the control class, and Class 5B with a total of 25 students as the experimental class; 24 boys and 26 girls. The sampling technique used in this study is purposive random sampling. According to Hakim et al. (2018), purposive random sampling is a technique for sampling data sources using specific considerations. The reason for using this technique is that not all samples have criteria that are in accordance with the phenomena or problems studied by researchers.

3.3. Data Collection

Data collection techniques are carried out through tests, questionnaires, and documentation. The test in this study was an initial test (Pre-test) and a final test (Post-test). The initial test was carried out before the treatment (treatment), and the final test was carried out after the treatment. Pretest and post-test questions with a total of 25 questions in the form of multiple choice questions, short answer questions, and description questions. The test given has been tested with a Cronbach alpha value of 0.640, which means that the test has a value feasible enough to be distributed. `The test results are used to calculate student learning outcomes data analysis. The questionnaires in this study were used to measure students' learning interest variables. The documents used for this research were in the form of a Learning Implementation Plan, student worksheets, school profile sheets, and photos during the research.

3.4. Data Analysis

The data analysis techniques used are instrument tests, normality tests, and homogeneity tests to test the data given. The last data analysis is the calculation of hypothesis testing, including the Independent t-test with the following equation:

$$t = \frac{x_1 - x_2}{\sqrt{\frac{s_1^{\,2}}{n_1} + \frac{s_2^{\,2}}{n_2}}}$$

In the sense that t is the equation for calculating the independent t-test by calculating the group means with the variance of the data group. Then tested again with paired sample t-test using the mean and standard deviation of the data. Then the last test is the ANOVA test. The ANOVA test is used to measure the correlation pre- and post-treatment is carried out, this statistical test uses the SPSS package.

3.5. Validity and Reliability

Before giving treatments, the researcher conducted a validity test and a reliability test with an instrument of learning outcomes in the amount of 27 questions and an interest in learning questionnaire the amount of 25 points. The Calculation of the validity is shown in Table 2.

Table 2. Calculation of Validity Test

Variable	Type	Total instrument	Instrument Item
Learning Outcomes	Valid	21	1,2,4,6,7,8,9,10,11,13,14,15,17,19,20,21,22,23,24,25,26
	Invalid	6	3,5,12,16,18,27
Interest to Learn	Valid	25	1,2,3,4,7,9,10,11,13,14,15,17,18,19,20,21,22,23,24,25,26,27
	Invalid	5	5,6,8,12,16

Table 2 shows that the results of the validity test of the research instrument with a significance level of 5% were 0.433. In this description, the instrument items were valid if r-count > r-table. Validity test calculations concluded that from the instrument of learning outcomes questions, a total of 27 questions, were obtained 20 questions were considered valid, and seven questions were declared invalid. While the interest in learning questionnaire instrument totaled 25 points, 21 questions were declared valid and five questions were declared invalid. Therefore, the instrument used is 20 questions on learning outcomes and 20 points of interest in the learning questionnaire. While the calculation of the reliability test is presented in Table 3.

Table 3. Calculation of Reliability Test

Variable	r-count value	r-table value
Learning Outcomes	0.7	Significance level 5%
Interest to Learn	0.8	0.433

Table 3 shows that the reliability test was carried out after knowing that the instrument was declared valid. The reliability of 21 students obtained learning outcomes of 0.7 and an r-count of interest in learning of 0.8, while an r-table of 0.433. Then r-count > r-table, and it can be stated that the instrument used is reliable and feasible to use.

4. Findings

Researchers conducted this study in two different classes. The purpose of conducting research in different classes is so that the data obtained is more relevant. The classes used have the same achievement level.

4.1. Normality and Homogeneity Test

Before analyzing the pretest and posttest data, a normality test was carried out by applying the Lilliefors Test in the experimental class and the control class. Normality test calculations for the experimental class are shown in Table 4.

Table 4. Experimental Class Normality Test

Variable	Class	Lo	L-table
Learning Outcomes	Pretest	0.146	0.180
	Posttest	0.091	
Interest to Learn	Pretest	0.113	
	Posttest	0.093	

Table 4 shows that the normality test is a test carried out in research to assess the distribution of research data or whether the variable is normally distributed or not (Fahmeyzan et al., 2018). The normality test carried out is the Lilliefors Test. It can be said that the population is normal if Lo < L-table. After conducting research, it was found that the greatest value in pretest the learning outcomes of the experimental class was 0.146 and the posttest score of the experimental class learning outcomes was 0.091. While the largest value in the pretest intention to study in the experimental class was 0.113, and the value in the Post-Test, intention to study in the experimental class was 0.093. It can be concluded that the sample data pre-test experimental class as well as a post-test experimental class used from a normally distributed population. Normality test calculations for the control class can be seen in Table 5.

Table 5 Control Class Normality Test

Variable	Class	L-count value	a - 5%
Learning Outcomes	Pretest	0.167	0.180
	Posttest	0.157	
Interest to Learn	Pretest	0.159	
	Posttest	0.144	

Table 5 shows that the normality test carried out is the Lilliefors Test. It can be said that the population is normal if Lo < L-table. Research has shown that the greatest value in the Pre-Test the learning outcomes of the control class was 0.167 and the Post-Test value of the control class learning outcomes was 0.157. While the largest value in Pre-Test the control class's learning intention was 0.159 and the value Post-Test interest in learning in the experimental class is 0.144. Then it can be concluded that sample data Pre-test experimental class, as well as Post-test control class, was used from a normally distributed population. After carrying out the normality test, the researcher recalculated with the homogeneity test. A homogeneity test is a research test conducted to determine the homogeneity or similarity of some parts of the sample or the level of uniformity of variance in the sample, whether coming from the same population or not. The sample test is declared homogeneous if F_o <F-table. The results of the homogeneity test of the two samples are shown in Table 6.

Table 6. Homogeneity Test

Variable	Class	F-count value	Signification a - 5%	Information
Learning Outcomes	Pretest	1.420	2.66	Inhomogeneous
	Posttest	1.442		Inhomogeneous
Interest to learn	Pretest	1.312		Inhomogeneous
	Posttest	1.422		Inhomogeneous

From the data in Table 6, the homogeneity test obtained Fcount < Ftable. This indicated that the variances of the pretest and posttest data from the control class and the experimental class were not homogeneous.

4.2. Hypothesis Testing

Table 7 shows the calculation of the independent test variable of learning outcomes in both groups

Table 7. Independent Test

	Experiment	*Control*
Mean	68.79	9.677
Variance	31.65	1.971
Observations	24	24
Hypothesized Mean Difference	0	
df	26	
t Stat	49.95	
P(T<=t) one-tail	1.160	
t Critical one-tail	1.705	
P(T<=t) two-tail	2.321	
t Critical two-tail	2.055	

Table 7 shows the hypothesis using the independent t-test (the test on the variables in the study) to find out whether there is a difference in the posttest results of students in the experimental class with the control class posttest. Because t-count > t-table (3.383 > 2.015) it can be concluded that there is a difference in the average results and student learning intentions between the results posttest experiment and with posttest control. In other words, the influence of the media-assisted TGT learning model was found to articulate the storyline on Javanese script material at the elementary school level. After testing using the t-test, the test paired sample t-test in the post-test and pretest experimental class is presented in Table 8.

Table 8. Paired t-Test

	POST	*PRE*
Mean	69.04	60
Variance	31.87	34.33
Observations	25	25
Pearson Correlation	0.489	
Hypothesized Mean Difference	0	
df	24	
t Stat	7.77	
P(T<=t) one-tail	2.6	
t Critical one-tail	1.71	
P(T<=t) two-tail	5.2	
t Critical two-tail	2.06	

Table 8 shows that paired sample t-test was used to test the same sample subject, but experiencing different measurements, and pre-and post-treatments were conducted in the experimental class in the interest variable. The test results, known that obtained a t-count of 7.77 and a t-table of 2.06, which proved there was a difference in the measurement results before and after the treatment is carried out, which meant that the impact of the media-assisted TGT learning model was found articulate storyline on Javanese script material at the elementary school level.

The last test was the ANOVA test, used to test the correlation effect before and after the treatment was applied to the experimental class is presented in Table 9.

Table 9. ANOVA Test

Source of Variation	*Count*	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	25	23501	1	23501	1167	2.4	4.04
Within Groups	25	966	48	20.13			
Total		24468	49				

Table 9 shows that there is an effect of the treatment applied, as evidenced by the result of ANOVA being 2.4, which was higher than alpha (0.05). In other words, there is a correlation between the pre-and post-application of the Team Games Tournament learning model with the Articulate Storyline media on Javanese script material in the experimental class.

After testing the hypothesis, the finding of an increase in the use of the TGT model and Articulate Storyline media in Javanese script material was concluded by the posttest average obtained from combining the learning outcomes scores and learning interest scores. The average class is presented in Table 10.

Table 10. Class Average

Class	Posttest Average
Experiment	47.36
Control	36.1

In Table 10, using different learning models and interactive media can improve student learning outcomes and interest in understanding Javanese script material. The comparison of the mean of the experimental class and the control class shows that the use of the Team Games Tournament (TGT) learning model assisted by Articulate Storyline media can improve student learning outcomes and interest in Javanese script material at the elementary school level. Furthermore, it provides opportunities for students to implement knowledge of Javanese script material with the concept of class games and tournaments. This process tends to be easy to remember and understand with a fun group learning process so that students will participate more actively and their curiosity about the material will increase. However, Articulate Storyline requires longer learning time allocation due to the application of a game and score system and results in classrooms when learning tends to be more crowded. Several students had short disagreements because of the group scores obtained. However, this could be conditioned again by the researcher.

5. Discussion

Based on data analysis results, there was an increase in ability in the Javanese script material for fifth-grade students using the Team Games Tournament learning model with Articulate Storyline. In the pretest control class and the experimental class results obtained were the ability of the two classes to be the same, in other words, the levels of learning outcomes before treatment were similar. The results of the pretest of the two research classes for student learning outcomes and interest were still low. So far, teachers use learning mediums only with the media of blackboard posters and accompanying books. In addition, the strategy or learning model used is also less varied. As a result, students are less enthusiastic and motivated in learning Javanese script. The learning process in the experimental class uses the media-assisted TGT learning model Articulate Storyline Javanese script material is more varied and tends not to be monotonous and fun to provide opportunities for students to participate actively in the learning process through games and tournaments with a scoring system.

Using the Team Games Tournament model with Articulate Storyline media helps students to better understand the concept of understanding, reading, and writing the Javanese script that will be taught, this is a useful technique used in learning. The findings of this study conclude that the TGT model and Articulate Storyline media which are carried out interactively between teachers and students positively increase academic success and student interest in learning Javanese script. The reason for the increase in the success of the results and the interest of the experimental group students was the fact that students answered all the questions posed in the questions in posttest questions and learning questionnaires, besides that students also participated actively when learning was carried out.

TGT is the concept of using game elements in non-game situations. The goal is to motivate someone to do something in a fun way. The techniques commonly used in gamification are different game levels, scores, player characters, and competition. These techniques can develop students' thinking skills taught by teachers who do not have mastery of computer programming languages, such as coding. Research on gamification has been carried out such as the effectiveness in increasing student creativity, increasing learning motivation, deepening mastery of concepts, changing behavior and collaboration between students, and students critical thinking skills. The teacher's role in learning using a gamification approach (TGT) is to design a learning activity by incorporating game elements such as badges, scores, rewards, and feedback through multimedia technology. As for feedback in multimedia gamification, there is a positive to encourage and motivate students' strengths and negative feedback that aims to correct students; weaknesses. Gamification-based learning using Articulate Storyline multimedia shows student engagement at a fairly high level, accompanied by increased critical thinking and independent learning.

Pongkendek et al., (2019) mentions learning games that can involve the activities of all students regardless of status, involve the role of students as tutors to each other, and learning that contains game elements will be more effective and efficient. It is fun for students to understand the learning material. Meanwhile, according to Heliawati et al. (2022), the characteristics of

21st-century learning must pay attention to aspects of students' emotional intelligence and mental health as well as mastery of 4C skills, which can be achieved through the application of learning-based gamification. In line with Kristiana et al. (2017) stated that the use of the TGT learning model is a varied model and does not cause boredom in class. Evidenced by an increase in student learning outcomes after the TGT learning model is used during learning. Sudimahayasa (2015) researched increasing student attitudes and participation when applying the TGT learning model. This means that students tend to be more active and enthusiastic, and this learning model activates students' ability to get along with others. In line with t Oktarianto & Handayanto (2021), the model of student activity in participating in the learning process is an element of marketing learning objectives, to achieve these learning objectives a facilitator is required, namely a teacher who can create a learning atmosphere that involves students actively while building student motivation. Achieving learning objectives depends on whether or not a teacher is appropriate to using a learning model. Developed in a learning model that contains elements of the game. The control class learning process does not use TGT learning media assisted by the Articulate Storyline model on Javanese script material.

The control class only uses expository learning models with sticky poster media. Students in this class tend to be passive when studying and prefer to be silent and listen to material without showing interaction in class. Hadi & Umi Kasum (2015) found that the cause of students' low understanding of concepts is influenced by several factors, one of which is the media used by the teacher and the development of learning strategies that allow students to be active, creative and fun, and assess student learning processes and outcomes accurately. Meanwhile, according to Santoso (2017), learning media can be used to stimulate students' thoughts and concepts, feelings, attention, and abilities or skills in students so that they can encourage maximum learning processes. Articulate Storyline in student learning, according to Yolanda et al. (2022) shows that learning media that present effective, innovative, and interactive combinations will improve all aspects of learning. Improvements occurred in student learning outcomes, the level of student-teacher interaction, and the teacher's ability to develop instructional media. In line with research by Setyaningsih et al. (2020), the application of Articulate Storyline media increases student motivation in class. This interactive media can be used by teachers as well as students to try new things. Student learning motivation is built by creating conditions and learning atmospheres that are not boring, along with increased motivation, student learning outcomes will also increase from before. The application of appropriate learning models and media for students influences the implementation of learning. This affects student motivation, participation in class, student interest in paying attention to the material, and student learning outcomes that are formed from class activities that occur. Javanese script material is less attractive to students, therefore the application of the TGT learning model and Articulate Storyline media will help students improve all aspects of learning. Application of these elements results in increased skills in Javanese script material. The researcher explained the material and then allowed students to ask and answer questions with friends. Some students already understand and master the learning material provided by the researcher. However, when given the post-test questions, there were still many students who did not answer, but in the experimental class that was given the treatment, the average post-test results were higher than the control class.

6. Conclusion

Based on the results of the research conducted, it can be concluded that there is an effect of the treatment or treatment studied. From the results of the calculation of the average experimental and control classes as well as the ANOVA test, it is obtained at 4.66 so it can be concluded that the influence of the learning model Team Games Tournament media-assisted Articulate Storyline to improve learning outcomes and interest in Javanese script material in elementary schools is classified as having a significant influence. The varied and interactive learning concepts make student participation more active in understanding the material so that each student can improve their learning outcomes and interest.

Limitation

The limitation of this research is that this research only discusses the improvement in learning Javanese script. In addition, this research was only conducted at the elementary school level.

Recommendation

Recommendations based on the results of the study are that teachers need to plan a longer learning time allocation than learning. The application of models and media can be used in all student subjects so that students are accustomed to learning in a fun and interactive atmosphere and conditions.

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Conflict of Interest

Researchers in researching and publishing articles there are no elements that indicate conflict of interest.

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