

Development of Learning Models of Ips Based On Local Genius Knowledge of Horsehouse Arts Culture to Improve the Character of Students

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Abstract: *Crossword media can refresh memory, attract and impress memory, so that students will be active, independent, thinking critically in solving problems in crossword puzzles. This study aims to determine the effect of crossword media on learning outcomes of IPAS Chapter 6 Indonesiaku Kaya Budaya in Class IV students at SDN Tanggul Kulon 01 Jember. The design of this research is experimental research and the type of quasi or pseudo experimental research with a research pattern of non-equivalent control group design. This research was conducted on students of class IV B and IV C at SDN Tanggul Kulon 01 Jember. The data in this study in the form of pretest posttest results of students of IPAS subject matter in Chapter 6. The data collection methods used were tests, interviews, documentation and observation. The data analysis technique used t-test analysis technique and relative effectiveness test. The results of the t-test or independent sample t-test calculation show that the t-count value is 5.561 while the t-table is 0.680 with a significance level of 5% or 0.05. The result of t-test calculation shows that $t_{count} < t_{table}$, which is $5.561 < 0.680$. The relative effectiveness test shows that the use of crossword puzzle media is 71% more effective than without the use of crossword media. Based on these results, there is an effect of crossword puzzle media on the learning outcomes of IPAs Chapter 6 Indonesiaku Kaya Budaya in Class IV students at SDN Tanggul Kulon 01 Jember because the value of $t_{count} < t_{table}$. The results of the t-test or independent sample t-test calculation show that the t-count value is 5.561 while the t-table is 0.680 with a significance level of 5% or 0.05. The result of t-test calculation shows that $t_{count} < t_{table}$, which is $5.561 < 0.680$. The relative effectiveness test shows that the use of crossword puzzle media is 71% more effective than without the use of crossword media. Based on these results, there is an effect of crossword puzzle media on the learning outcomes of IPAs Chapter 6 Indonesiaku Kaya Budaya in Class IV students at SDN Tanggul Kulon 01 Jember because the value of $t_{count} < t_{table}$. The relative effectiveness test shows that the use of crossword puzzle media is 71% more effective than without the use of crossword media. Based on these results, there is an effect of crossword puzzle media on the learning outcomes of IPAs Chapter 6 Indonesiaku Kaya Budaya in Class IV students at SDN Tanggul Kulon 01 Jember because the value of $t_{count} < t_{table}$. The relative effectiveness test shows that the use of crossword puzzle media is 71% more effective than without the use of crossword media. Based on these results, there is an effect of crossword puzzle media on the learning outcomes of IPAs Chapter 6 Indonesiaku Kaya Budaya in Class IV students at SDN Tanggul Kulon 01 Jember because the value of $t_{count} < t_{table}$. The relative effectiveness test shows that the use of crossword puzzle media is 71% more effective than without the use of crossword media. Based on these results, there is an effect of crossword puzzle media on the learning outcomes of IPAs Chapter 6 Indonesiaku Kaya Budaya in Class IV students at SDN Tanggul Kulon 01 Jember because the value of $t_{count} < t_{table}$.*

Keywords: *Crossword Media, Learning Outcomes*

INTRODUCTION

The learning process requires learning media that can convey the meaning and objectives of learning effectively and efficiently. Media that students can use to review or recall from the teacher about the material presented is crossword puzzle media. According to Kurniawati (2021:19) that crossword puzzles as learning media refresh memory, attract and impress students' memory. Students will be active, independent, think critically in solving a problem that is in a crossword puzzle, students feel in a pleasant atmosphere in learning, so that in the process of transferring knowledge, students can easily accept not feel forced to learn.

In the subject matter of IPAs Chapter 6 Indonesiaku is rich in culture, students will learn about the cultural diversity and local wisdom of each region. Students know the benefits and protection of cultural diversity in Indonesia. From this understanding allows students to apply the value of tolerance for differences and diversity in their environment. Students can try to preserve culture in our daily lives. Students are aware of the rich culture around them and create pride in applying cultural values in everyday life. The activities in this chapter can be integrated into Civics lessons (Unity in Diversity) and SBdP (Cultural Parade activities). The need for a learning that serves as a bridge to achieve these goals, it is necessary to choose learning media based on the understanding and objectives of the learning carried out. It is hoped that later learning media can be a student solution to overcome learning, with the hope that students can concentrate on receiving lessons in class, with games can train concentration and hone students' brains with learning media in the form of crosswords.

This crossword puzzle learning media is considered very appropriate in learning Chapter 6 My Indonesia is rich in culture because the learning process involves active teachers and students and finally students can go through the process of discovery. A crossword puzzle is a game of filling in answers in a column of boxes that have letters according to the question which can hone students' brains. Learning should be fun, there are many ways to make learning more fun, one of which is to fill in crosswords.

Wahyuni and Sulfasyah's research (2018: 644) concerning the effect of applying the crossword puzzle method to the learning outcomes of third-grade students' vocabulary mastery at SDN 151 Bunne, Marioriwawo sub-district, Soppeng district, provides results that support that according to the research results, it can be concluded that the crossword puzzle method is effective in improve grade 3 students at SDN 151 Bunne in mastering Indonesian vocabulary. Marioriwawo district, Sopen district. Research by Pratiwi (2020):

Based on the researcher's interview with the class IV teacher at SDN Tanggul Kulon 01 in Jember city regarding learning media and its application in the Free Learning Curriculum, because the initial materials for learning media are sought and prepared by the teacher, if there is no learning media, learning feels unreal, lack of the introduction and use of learning media by teachers causes students to know less about the material riches of Indonesian culture, lack of innovation and creativity in using learning media. Not infrequently students have difficulty knowing the richness of Indonesian culture. This has an impact on understanding the mastery of the science subject matter in Chapter 6 My Indonesia is Rich in Culture. Based on observational data and documentation obtained by researchers in class IV students at SDN Tanggul Kulon 01, data were obtained from the field when observing class IV students, namely learning media were not always used in providing material to students, referring to student books, then students were asked to take turns reading material in class, the teacher sets the atmosphere so that the task is carried out efficiently, guiding students one by one to their respective seats. If there are students who are not good at reading the material, students are asked to provide good feedback as well as repeated praise and guidance. Based on these,

LITERATURE REVIEW

Learning outcomes

Learning Outcomes are skills possessed by students after experiencing the learning process (Sudjana in Firmansyah 2015:38). Student learning outcomes are influenced by two factors, namely internal and external. Internal student factors include health problems, disabilities, physical and psychological factors (intelligence, interest in learning, attention, talent, motivation, maturity and student readiness as well as fatigue factors. Meanwhile, external factors, namely the impact on student learning processes and outcomes include family, school, society (Majid in Nurhasanah and Sobandi 2016: 131) Shintalismi and Mujinem (2012: 12–13) explain that the most important part of the learning and teaching process is learning outcomes, understanding learning outcomes is the application of students after obtaining learning material both in aspects cognitive, affective and psychomotor. Benjamin said that there are six types of behavior in the cognitive domain, namely (1) Knowledge, (2) Understanding, (3) Application, (4) Analysis, (5) Synthesis, and (6) Evaluation. Annisa (2016: 12) states that the factors that influence learning success are (1) internal factors in the form of psychological and physical, and (2) external factors in the form of family, school environment, and the environment around students.

Crossword Puzzle Learning Media

Learning media is anything that can be used to convey messages from senders to recipients that stimulate students' thoughts, feelings, concerns, and interests to learn. Conveying messages or information in learning to stimulate students' interest and attention to learning and all things that can be used for this are called learning media. Arsyad (2020:10) argues that the interaction of experiences carried out by students before learning with the direct experience they gain gains knowledge, skills and changes in attitudes. Bruner explains that direct experience (enactive), pictorial/image experience (iconic), and abstract experience (symbolic) are the main levels in the learning mode. The message conveyed is the material taught and desired by students. The message is poured by the teacher as (encoding) and the student as the recipient of the message who interprets the message (decoding). When students use all of their sensory organs in receiving what information is conveyed by the teacher, it is hoped that students can receive and understand a lot of this information easily and well and retain it in the student's memory. Visual media in learning media have three functions, namely (1) affective function, (2) cognitive function, and (3) compensatory.

Agustin et al. (2021: 169) explains that crossword puzzles are a medium used to help students remember and review the material taught by the teacher. Hidayat (2018: 30) states that a crossword puzzle is a game where the way to play it is by filling in the answers in the checkered column with the letters according to the question, this game functions to hone students' brains. Crossword puzzles are one of the learning media that can be used in learning to train thinking skills and vocabulary mastery. In addition, material can be selected that can be adapted to learning objectives (Syofiani et al. 2019: 89). By using this crossword puzzle

game, students can overcome the boredom of students who only answer questions given in multiple choice or description models. thus enabling students to better understand the material provided. The application of TTS to students when studying can make the learning atmosphere more fun and exciting, the level of student activity increases while learning, then differences and abilities achieve maximum cognitive results to achieve learning goals. Saputri (2016: 282) states that there are 5 advantages to learning with crossword puzzles, namely (1) it increases learning motivation, (2) it can make learning more fun, (3) it can sharpen the brain, (4) it can improve memory, and (5) teach to be thorough and tenacious. then the difference and the ability to achieve maximum cognitive results to achieve learning objectives. Saputri (2016: 282) states that there are 5 advantages to learning with crossword puzzles, namely (1) it increases learning motivation, (2) it can make learning more fun, (3) it can sharpen the brain, (4) it can improve memory, and (5) teach to be thorough and tenacious. then the difference and the ability to achieve maximum cognitive results to achieve learning objectives. Saputri (2016: 282) states that there are 5 advantages to learning with crossword puzzles, namely (1) it increases learning motivation, (2) it can make learning more fun, (3) it can sharpen the brain, (4) it can improve memory, and (5) teach to be thorough and tenacious.

Learning Using Crosswords

Crossword puzzles can be used as learning media by first asking the teacher to demonstrate the crossword game to students in front of the class and then explaining how to play it. Before the game starts, the teacher divides students into several groups and each group answers numbered crossword questions. namely, horizontal questions and vertical questions. Each group then answers the crossword puzzle according to the allotted time. More appreciation is given by the teacher for the group that gets all right or all right. This game gives students a passion for useful learning. Compete for the correct answers to crosswords. By answering crossword puzzle questions, students indirectly review the material being taught. This indirectly gives students their own minds to get good grades from their teachers. The fun of this game also minimizes the passive class atmosphere.

The Independent Curriculum provides flexibility for teaching units and teachers, develops the potential and freedom of students to learn according to their abilities and development. The linkage of crossword media to science learning outcomes Chapter 6 My Indonesia is Rich in Culture in class IV students at SDN Tanggul Kulon 01, namely how students learn to use a media by utilizing crossword puzzles in it, student learning processes are evaluated through learning outcomes in learning IPAS Chapter 6 My Indonesia is Rich in Culture.

This research is relevant to Wahyuni and Sulfasyah's research (2018: 644) regarding the effect of applying the crossword puzzle method on the learning outcomes of third-grade students' vocabulary mastery at SDN 151 Bunne, Marioriwawo sub-district, Soppeng district, providing results that support that according to the research results, it can be concluded that the puzzle method crossword puzzles are effective in improving grade 3 students at SDN 151 Bunne in mastering Indonesian vocabulary. Marioriwawo district, Sopen district. Research Maharani et al. (2019: 157) concerning increasing the activity and thematic learning outcomes of students through team quiz learning strategies and crossword media provide results that support that according to the results of this study it shows the conclusion that the active learning strategy type quiz team assisted by crossword media is effective for thematic learning outcomes of class students IV SD Negeri Tambakrejo 02 Semarang. Research by Yuniarti et al. (2016: 8) concerning the effect of crossword puzzles on social studies learning outcomes for class V elementary school shows the conclusion that there is an effect of using the crossword puzzle model on social studies learning outcomes in the medium category of class V SDN 03 Pontianak Kota. Research by Pratiwi (2020: 19) regarding the effect of the crossword puzzle learning strategy on the learning outcomes of fourth grade students in science learning content at SDN Gunung Sari 1, Rappocini sub-district, Makassar city, it can be concluded that the general description of the use of crossword learning strategies on student learning outcomes on science learning content at SDN Gunung Sari 1, Rappocini sub-district, Makassar municipality, it has a positive effect, this is an observation from the effective to very effective category and student learning outcomes are more effective. Crossword puzzle learning media has an effect on learning Theme 7 the beauty of diversity in my country for grade IV students, as previously examined by Setiawan and Zuhdi (2019:

Based on the research research, it can be concluded that media crossword puzzles affect student learning outcomes in the learning process. The visible effect is that the students' mental state is clearer, relaxed and calm so that the brain's memory becomes stronger and students' memory increases.

RESEARCH METHODS

This type of research is experimental research. The design of this study uses a quasi-experimental pattern. The design of this study uses "Non-Randomized Control Group Pretest-Posttest Design" with a pattern "Non-Equivalent Control Group". This research was conducted at Tanggul Kulon 01 Elementary School Jember, the time used in this research was the even semester of the 2023/2024 academic year. The subjects of this study were all students in grades IV B and IV C of SDN Tanggul Kulon 01, which

consisted of 22 and 21 students respectively. Data collection techniques were carried out by means of learning outcomes tests in the form of pretest and posttest, interviews, documentation, and observation.

Homogeneity test was carried out using ANOVA analysis of variance with the help of SPSS version 26.

		Test of Homogeneity of Variances			
		Levene Statistic	df1	df2	Sig.
Hasil	Based on Mean	.324	1	41	.572
	Based on Median	.374	1	41	.544
	Based on Median and with adjusted df	.374	1	37.828	.545
	Based on trimmed mean	.318	1	41	.576

Picture1. Homogeneity Test

Based on the results of calculations on the homogeneity test using the SPSS 26 application, it can be concluded that IV B and IV C of the two classes at Tanggul Kulon 01 Jember Elementary School because they have a Lavene statistic value of 0.572 are declared homogeneous.

using the Product Moment correlation technique from Pearson is the method used in analyzing the data obtained in the trial, using the rough number formula as follows.

$$r_{xy} = \frac{N\sum XY - (\sum X)(\sum Y)}{\sqrt{[NX^2 - (\sum X)^2]} \sqrt{[N\sum Y^2 - (\sum Y)^2]}}$$

Information:

r_{xy} : correlation coefficient of the item scores with the total score

X: item score

Y: total score

N: number of samples

Based on the results of the empirical validity test, it is known that of the 30 items that have been tested, there are 8 questions that are invalid, so that there are 22 questions that are valid. Then do the reliability test using the split half method. The results of the calculation of the reliability test obtained a value of 1.00, so that the instruments in this study were reliable and included in the very high reliability category.

a. Normality test

The normality test uses the help of SPSS version 26. The normality test has a basis for making a decision, namely the data is normally distributed if the significant value is > 0.05 and the data is not normally distributed if the significant value is <0.05.

b. Hypothesis testing

$$t = \frac{M_2 - M_1}{\sqrt{\frac{\sum x_1^2 + \sum x_2^2}{N(N-1)}}}$$

Information :

M1: The mean value of X1 group (experimental group)

M2: The mean value of X2 group (control group)

X1: Deviation of each value of X1 from the mean of X1

X2: Deviation of each value of X2 from the mean of X2

N: There are many subjects/ research samples

c) Relative Effectiveness Test

$$ER = \left(\frac{MX_2 - MX_1}{\frac{MX_1 + MX_2}{2}} \right) \times 100\%$$

Information :

ER: The relative effectiveness of the experimental group treatment compared to the control group treatment

MX1: The mean or average value in the control group

MX2: The mean or average of the values in the experimental group

RESEARCH RESULTS AND DISCUSSION

The results of this study were in the form of an average pretest score of 52.09 for the experimental class and a posttest of 89.22 with an average value of the difference between the pretest and posttest of 37.14. While the average pretest score for the control class was 52 and 69.52 for the posttest with an average difference value of 17.52. The data used in the analysis of the t-test data is the difference in the pretest and posttest values of the experimental group and the control group. The t test was carried out using the SPSS version 26 application with the following results.

Table 1. Calculation of the T-test

Statistics Group					
	Class	N	Average	std. Deviation	std. Average Error
Science Learning Outcomes	Class B	22	37.14	13,823	2,947
	Class C	21	17.52	8,565	1869

Independent Sample Test

		Levene's test for equality of variance		T-test for Equivalence of Means						
		F	Sig.	t	db	Sig. (2-tailed)	Average difference	std. Error Difference	95% Confidence Interval and Difference	
									Lower	Upper
Science Learning Outcomes	The variances are assumed to be the same	3,348	.075	5,561	41	.000	19,613	3,527	12,490	26,735
	The variances are not assumed to be the same			5,620	35,295	.000	19,613	3,490	12,530	26,695

The result of the calculation from the t-test is tcount, which is equal to 5.561. These calculations are then consulted with table. at a significance level of 0.05 or a 95% confidence level. It is known that the db value (degrees of freedom) is 41 which is

obtained from the results of calculating the number of subjects minus 2 $((22 + 21) - 2 = 41)$. So that a ttable value of 0.680 is obtained. Based on the data analysis, it can be concluded that $5.561 > 0.680$ or $t \text{ count} > t \text{ table}$. Hypothesis testing can be accepted or rejected based on the provisions and decisions of hypothesis testing as follows "The alternative hypothesis (H1) is accepted and the null hypothesis (H0) is rejected, if the t test results show a value that is greater than the ttable value with a significance level of 5%. Based on the final result of the t test, namely $5.561 > 0.680$ or $t \text{ count} > t \text{ table}$,

The relative effectiveness test or ER test can be carried out after getting the results from the t test. The purpose of conducting a relative effectiveness test is to find out the level of effectiveness of the group using the crossword puzzle media on the cultural diversity map media. The calculation on the ER test uses the difference in the pretest and posttest values of the experimental and control groups as follows.

$$ER = \frac{MX_2 - MX_1}{\left(\frac{MX_1 + MX_2}{2}\right)} \times 100\%$$

$$ER = \frac{37,14 - 17,52}{\left(\frac{17,52 + 37,14}{2}\right)} \times 100$$

$$ER = 71 \%$$

Based on the results of the ER test calculation above, a result of 71% was obtained with the high effectiveness category. So it can be concluded that the achievement of student learning outcomes in the experimental group using crossword media shows 71% more effective when compared to the control group without using crossword media.

There are several internal factors that can affect the results of these calculations. The motivation and willingness of students in the experimental group to participate in learning activities was high. This phenomenon can be observed by the way students participate in learning in an orderly, active, and conducive manner. Second, the perseverance and the way students pay attention to each activity looks serious. Third, have a high enthusiasm for learning. The difference with the control class is that students' responses are less enthusiastic about learning, passive towards questions given by the teacher and the intelligence of each student in participating in learning is also an important factor influencing learning outcomes. This was slightly different from the learning situation that occurred in the control group. Based on the research that has been carried out, the characteristics of simple and fun crossword learning media appear. This is because students are busy discussing solutions to the problems they get. Students share their opinions in group discussions.

A form of crossword learning media that can increase learning motivation, make learning more fun, sharpen the brain, improve memory, teach to be thorough and tenacious. Implementation of crossword learning media can affect students' cognitive competence. Students' knowledge, understanding, and analysis of the material are needed in order to solve problems. The way students work together with groups, respond well to learning activities, listen and compete with other groups in solving questions in crossword learning media also influences students' cognitive competence. The use of crossword puzzle learning media with the concept of learning while playing provides new experiences for students. Students in the experimental group were very active in discussions with their group mates and were interested in the learning experience using this crossword puzzle. It is this interest that makes the learning atmosphere while using crosswords media fun and impressive, so that students are more motivated and more eager to continue learning.

The use of crossword learning media as a learning medium is inseparable from deficiencies. These drawbacks include spending a long time so that students can answer all questions according to the time specified by the teacher, students sometimes doubt the answer to a question in the crossword media and determine the right answer which may have to match a certain box so it requires patience. , and the thoroughness of the teacher in guiding discussion activities in learning using crossword puzzles (TTS).

CONCLUSIONS AND SUGGESTIONS

The results of the calculation of the t-test using SPSS Version 26 showed a tcount of 5.561. Greater than the ttable value of 0.680. Based on the decision making basis $t \text{ count} > t \text{ table}$ then $5.561 > 0.680$ has met the criteria. Alternative hypothesis (Ha) is accepted. In addition, the relative effectiveness test (ER) shows that the use of crossword puzzles is 71% more effective. The final conclusion of this study is that there is an effect of using crossword puzzles on science learning outcomes Chapter 6 Indonesiaku Kaya Budaya in class IV students at SDN Tanggul Kulon 01 Jember.

The suggestions from this study are that students should broaden their knowledge regarding the material to be taught, actively ask the teacher when experiencing difficulties and often practice doing exercises. For teachers, questions in crossword media

(TTS) must be adapted to the learning needs and abilities of students. The material used does not have to be IPAS. There needs to be more time availability in implementing crossword puzzle learning media. For school principals, crossword puzzle media can be used as part of an effort to improve teacher competency. Finally, other researchers are advised to conduct developmental research related to crossword learning media and be able to expand validation not only limited to scientific fields.

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