

THE EFFECT OF GAMES-BASED PROBLEM BASED LEARNING (PBL) MODEL ON LITERACY AND NUMERACY OF CLASS IV STUDENTS

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ABSTRACT

The Effect of Games-Based Problem Based Learning (PBL) Model on Literacy and Numeracy of Class IV Students of UPT SPF SD Inpres Layang III Makassar City. This study aims to determine the effect of the games-based Problem Based Learning (PBL) model on literacy and numeracy of grade IV UPT SPF SD Inpres Layang III Makassar City school year 2024 odd semester. This type of research is experimental research designs one-group pretest-posttest. With the subject of this study were 24 UPT SPF SD Inpres Layang III class IV students, of which 9 male students and 12 female. Data collection was carried out using interviews, observations, tests, and documentation. The data collected in the study were analyzed using descriptive and inferential analysis techniques. Based on the results of data analysis, the average literacy pre-test before treatment was 60.95 while after treatment was 80.48. And the numeracy pre-test before being given the treatment was 65.24 while after being given the treatment was 89.52. Hypothesis testing of the experimental class obtained normality test is 0.163 which means very effective. Based on the results of the study, there is an effect of the games-based Problem Based Learning (PBL) model on literacy and numeracy of class IV UPT SPF SD Inpres Layang III students.

1. INTRODUCTION

In substance, instruction is humanizing people, in line with this, concurring to Law No. 20 of 2003 concerning the National Instruction Framework in article 5, it is expressed that instruction could be a cognizant and arranged exertion to form a learning environment and learning handle so that understudies effectively create their potential to have devout otherworldly quality, self-control, identity, insights, respectable character, and abilities required by themselves, society, creating all the potential that exists in understudies through the learning process (Mulyadi et al., 2021). Instruction is the method of teaching or carrying out an action that contains an instructive communication

prepare between the teacher and the taught. Through inputs to understudies who will be deliberately processed by their souls, minds and bodies so that information (cognitive), aptitudes (psychomotor), and demeanors (emotional) are in understanding with what is expecting by the instruction (Syam & Syamsunardi, 2021).

The most calculate behind an instruction framework is school. Schools are formal instructive organizations comprising of teachers, understudies, objectives, subject matter, methods/models and apparatuses and media that can back and decide the success of learning. Within the teaching and learning handle, teachers are anticipated to supply more openings for understudies to look for and make their claim thoughts. Teachers have the part of being administrators and arranging all the forms that each understudy will do. Being an teacher must be able to cultivate motivation in understudies to comply and be dynamic within the learning prepare. The most thing to be an educator is to bolster, motivate and educate understudies in accomplishing the specified learning objectives, whereas understudies do more exercises to make themselves (Maskura & Irviana, 2023).

Instruction for human life could be a need that must be satisfied all through life. It is incomprehensible for a human gather to live and create in line with the standards of advance, success, and joy concurring to the concept of their worldview without instruction. Through instruction, it is trusted that the Indonesian era will ended up inventive and quality individuals so that they can contribute well to building the country and understanding all the issues confronting the Indonesian country (Irviana et al., 2021). The part of instruction is exceptionally expansive in planning and creating dependable Human Assets (HR) and who are able to compete soundly but moreover have a sense of fellowship with individual human creatures increments. Such is the significance of instruction in endeavors to teach the nation's life, make strides the welfare of society, and construct the nobility of the country, the government is attempting to pay genuine consideration to addressing different issues within the field of moving forward instruction extending from essential, auxiliary, to higher levels.

One of the rights of children that must be given by created nations is proficiency abilities and numeracy aptitudes and their offices. Education and numeracy aptitudes in Indonesia have ended up the most program that must be actualized on an progressing premise. These education abilities and numeracy aptitudes are essential information that must be aced early in essential school. Already education was translated as composing and perusing abilities, but more than that education aptitudes have meaning as the capacity to get it, studied, and be able to appreciate basic shapes of communication, orally and in composing. This numeracy aptitude is distinctive from math.

Education is the capacity to get to, get it and utilize something intellectuals through different exercises counting perusing, composing, tuning in, seeing and talking. This proficiency can be built from oneself through propensities, since being usual to perusing and composing isn't natural from birth but is built from routine so that it'll gotten to be an inalienable propensity in understudies (Dasor et al., 2021). Numeracy may be a person's capacity to define, apply and decipher science in different settings, counting the capacity to reason numerically and utilize concepts, methods, and realities to depict, clarify or anticipate wonders or occasions (Napsiyah et al., 2022).

The proficiency and numeracy aptitudes of understudies in Indonesia are still missing or very moo and must proceed to be progressed. One of the causes of moo proficiency and numeracy is the utilize of media, need of understudy interest and unseemly learning models. One of the endeavors made by instructors to move forward students' numeracy proficiency abilities is to apply learning models that can back the advancement of these capacities. Muslih et al. (2023) expressed that the problem-based learning demonstrate is more successful in

education and numeracy learning. Media-assisted problem-based learning shapes dynamic learners in education and numeracy aptitudes learning exercises.

This problem-based learning (PBL) show could be a learning show that's centered on understudies by going up against understudies with different issues confronted in genuine life and understudies attempt to fathom these issues. In this show, the lesson centers on a issue that must be unraveled by understudies, so that understudies have the duty to analyze and unravel the issue with their claim capacities, whereas the part of the teacher is as it were as a facilitator and gives direction to understudies (Meilasari et al., 2020).

Games-based learning is an imaginative approach that combines amusement components with instructive targets. One imperative perspective of games-based learning is the integration of amusement components into the educational programs. By planning recreations that are related to the learning fabric, instructors can make a learning involvement that's both fun and instructive at the same time. Games-based learning moreover emphasizes the improvement of basic aptitudes, and inventiveness. In a amusement, understudies are frequently confronted with challenges that require issue understanding and critical thinking. They need to arrange procedures, make choices and collaborate with their peers to attain particular objectives (Haryanto et al., 2024). The hand-off amusement may be a diversion that's carried out by running on the other hand or bending, where in one gather there are 4-6 runners (Rahmawati et al., 2023). Transfer diversions are one sort of diversion that's fun and challenging for children, since the amusement is outlined in such a way that children are upbeat and challenged with competencies between groups.

Based on perceptions made on December 1, 2023 analysts in course IV UPT SPF SD Inpres Layang III Makassar, to be specific course III understudies are still moo in proficiency and numeracy aptitudes. From introductory perceptions and interviews conducted with the third review educator, it was expressed that the capacity to get it questions, the capacity to analyze questions, the capacity to studied stammering, not recognizing letters, and the capacity to number were still very moo, that's , there were 5 understudies who as it were come to a score of less than 75. As expressed within the Merdeka Educational modules of UPT SPF SD Inpres Layang III, the least completeness for understudy education and numeracy is 75. One of the endeavors made in overcoming these issues is to utilize a games-based Issue Based Learning learning demonstrate to discover out how persuasive the games-based Issue Based Learning show is on understudy proficiency and numeracy. the choice of this demonstrate may be a learning approach that emphasizes issue tackling through the utilize of genuine circumstances or cases as the center of learning.

2. METHODS

The sort of inquire about utilized by analysts is exploratory investigate. Exploratory inquire about could be a sort of inquire about that points to demonstrate the impact of a treatment (treatment) on the comes about of the treatment. In this consider the creators utilized a one- group pretest-posttest sort plan. In this consider, the inquire about test was course IV UPT SPF SD Inpres Layang III Kota understudies comprising of 21 understudies within the 2024/2025 odd semester school year. This research was conducted at UPT SPF SD Inpres Layang III within the 2024/2025 scholarly year. This school was chosen to progress students' literacy and numeracy aptitudes at the school. This inquire about was conducted for 2 weeks within the to begin with semester (odd), to be specific July to Admirable of the 2024/2025 scholarly year. Information collection utilized in this inquire about is Perception, Test and Documentation.

3. RESULTS AND DISCUSSION

Research Result

In this segment, the comes about of the information portrayal of each variable will be displayed which incorporates the rate of the issue fathoming learning demonstrate (X), on education (Y1) and numeracy (Y2), course IV understudies of UPT SPF SD Inpres Layang III..

A. Implementation of the problem-based learning (PBL) show based on diversions on proficiency and numeracy of lesson IV UPT SPF SD Inpres Layang III understudies.

The Issue Based Learning (PBL) learning demonstrate is one sort of learning show that's activated by issues, which encourages understudies to memorize and work agreeably in bunches to discover arrangements, think fundamentally and systematically able to decide and utilize suitable learning assets. In Issue Based Learning, it has 5 stages in a lesson, to be specific: (1) the stage of situating understudies to the issue, where the educator opens the lesson by proposing a issue that's significant and curiously to understudies with the point of making understudies think approximately the utilize of integrability in genuine life agreeing to the fabric taught by the analyst. (2) the stage of organizing understudies to memorize, where understudies are partitioned into a few bunches, the analyst gives directions regarding the errands that each gather must do, specifically fathoming the issues displayed within the diversion and each gather must examine what they know almost the put esteem of integrability, how this diversion can offer assistance them get it the concept. (3) the stage of directing person and gather examinations based on recreations, this stage the analyst applies a hand-off diversion where understudies are isolated into a few bunches, where each bunch is given the errand of understanding issues related to determining and utilizing the put esteem of integrability. In this amusement, understudies decide and utilize put esteem fittingly to realize the diversion. (4) the stage of creating and displaying work, in this stage understudies are given the opportunity to create ventures that outline their understanding of put esteem. Besides, they will make a introduction clarifying how to decide and utilize the put esteem of integers. At the introduction, understudies are able to display and clarify their work clearly and convincingly, as well as associated with classmates to urge input. (5) the stage of analyzing and assessing the problem-solving prepare, in this stage understudies are welcomed to reflect and analyze the steps taken amid the learning prepare, counting the hand-off amusement that has been executed. Understudies question what worked and didn't work in their problem-solving prepare and assess how they worked together in bunches, as well as how communication and collaboration can move forward their learning results.

The problem-based learning show combined with recreations is an approach that puts understudies at the center of the learning prepare by utilizing recreations as a learning medium. In this demonstrate, understudies are confronted with genuine issues important to their lives or learning materials which they at that point ought to fathom through basic considering, collaboration and investigation. The diversion in this show serves as a device that energizes learner inspiration and engagement. By utilizing diversions, understudies are effectively included in fathoming issues in a more fun and intelligently way, this makes a difference learners understand proficiency and numeracy concepts through reenactments or challenges within the amusement. This ponder appears that the application of problem-based learning (PBL) show based on diversions has an impact on making strides education and numeracy of review IV understudies, through the language structure or steps of problem-based learning. This approach not as it were makes learning intelligently and fun, but too increments students' learning inspiration. In this way, coordination diversions into the problem-based learning (PBL) demonstrate can be an successful procedure in making strides the quality of education and numeracy learning, and can be utilized as an imaginative and pertinent learning methodology to be connected in basic schools.

B. The Impact of Games-Based Issue Based Learning (PBL) Show on Education of Lesson IV UPT SPF SD Inpres Layang III Understudies

Based on the comes about of the information gotten, the utilize of a games-based problem-based learning (PBL) show utilizing pre-test and post-test information, for learning results in science subjects, the normal score within the pre-test 60.95 is within the “sufficianta” category whereas within the post-test 80.48 is within the “gooda” category, meaning that there's a noteworthy impact on students' education abilities by being able to empower understudies to think fundamentally so that they are able to draw conclusions from perusing envy. It can be seen that the normal esteem for the post-test comes about is more prominent than the normal esteem of the pre-test comes about..

**Table 1 Data Description of Pretest and Posttest
 Literacy Results**

	pretest_ Literacy	posttest_ Literacy
N Valid	21	21
Missing	0	0
Mean	60.95	80.48
Median	60.00	80.00
Mode	60	80
Std. Deviation	12.611	10.235
Variance	159.048	104.762
Range	40	40
Minimum	40	60
Maximum	80	100
Sum	1280	1690

Source: IBM SPSS Version 22

Based on Table 1, it can be seen that the cruel or normal esteem of students' pre-test learning results is 60.95 from the perfect score accomplished by understudies within the adequate category. The standard deviation is 12.611 which shows noteworthy comes about within the pre-test comes about on education. The fluctuation recorded at 159.048 measures how broadly the pre-test values spread. The run or run of values from the proficiency pre-test is 40 which is the contrast between the most extreme esteem of 80 and the least esteem of 40. The mode is 60 and the middle is 60. On average, the esteem of learning results some time recently treatment employing a games-based problem-based learning (PBL) demonstrate. Based on table 1, it can be seen that the cruel or normal esteem of students' post-test learning outcomes is 80.48 from the perfect score of 100 accomplished by understudies within the great category. The standard deviation is 10.235 which appears noteworthy comes about within the post-test comes about on proficiency. The recorded change of 104.762 measures how broadly the post-test values spread. The extend or run of values of the education post-test is 40 which is the contrast between the greatest esteem of 100 and the least esteem of 60. The mode is 80 and the middle is 80. On the normal esteem of learning results after treatment employing a games-based problem-based learning (PBL) demonstrate.

The typicality test is connected to check whether the inquire about information is regularly conveyed or not, utilizing Shapiro-Wilk since of the test. The esteem is said to be regularly conveyed on the off chance that the esteem is > 0.05 and is said to be unusual in case < 0.05 . From the comes about of the investigate conducted, the typicality test utilized the Shapiro-Wilk strategy since the test

utilized was less than 50 understudies. to test the information on the pre-test and post-test comes about on understudy proficiency appears the taking after:

Table 2 Normality Test of Literacy

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
pretest_ literacy	.184	21	.061	.916	21	.074
posttest_ literacy	.233	21	.004	.915	21	.070

Source: IBM SPSS Version 22

Based on table 2, the comes about of the ordinairiness test calculation utilizing SPSS form 22, the centrality esteem of the education pre-test is 0.074 and the centrality esteem of the education post-test is 0.070. In understanding with the choice making within the Shapiro-wilk test in the event that the centrality esteem ≥ 0.05 , it can be concluded that the pre-test and post-test scores on understudy proficiency are ordinarily conveyed.

The matched test t-test test was utilized to decide the impact of the games-based problem-based learning (PBL) show on the education of course IV UPT SPF SD Inpres Layang III understudies. The premise for making combined test t-test choices is as takes after::

- If the Sig value > 0.05 , then H_a is rejected and H_0 is accepted. Then the data has no effect of problem-based leaning (PBL) model based on games on literacy.
- If Sig value < 0.05 , then H_a is accepted and H_0 is rejected. Then there is an effect of the games-based problem-based leaning (PBL) model on literacy.

Table 3 Paired Sample T-Test

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Paired sample 1 pretest_literacy - posttest_literacy	-19.524	6.690	1.460	-22.569	-16.478	-13.373	20	.000

Source: IBM SPSS Version 22

Based on table 3, the calculation of the combined test t-test test appears the sig. (2-tailed) esteem of 0.000 in agreement with the matched test t-test choice making in the event that the sig esteem < 0.05 , it can be concluded that there's an impact of the problem-based learning (PBL) demonstrate based on diversions on the education of lesson IV UPT SPF SD Inpres Layang III understudies..

C. The Impact of Games-Based Issue Based Learning (PBL) Demonstrate on Numeration of Lesson IV Understudies UPT SPF SD Inpres Layang III

Based on information on learning results of review IV understudies is to utilize pre-test and post-test esteem information. The execution of pre-test exercises carried out some time recently being given treatment and the execution of pot-test exercises carried out by giving treatment with a games-based problem-based learning (PBL) demonstrate on the numeracy of Lesson IV understudies. For learning results in science subjects, the normal score gotten within the pre-test 65.24 is within the “sufficianta” category whereas within the post-test 79.52 is within the “good” category, meaning that there's a critical impact on students' numeracy aptitudes by being able to empower understudies to think fundamentally so that they are able to unravel issues, able to apply images and numbers related to arithmetic to unravel issues. It can be seen that the normal esteem for the post-test comes about is more prominent than the normal esteem of the pre-test comes about.

Tabel 4 Deskripsi Data Hasil Pretest dan Posttest Numeracy

		pretest_numeracy	posttest_numeracy
N	Valid	21	21
	Missing	0	0
Mean		65.24	79.52
Median		70.00	80.00
Mode		60 ^a	80
Std. Deviation		14.007	10.235
Variance		196.190	104.762
Range		50	40
Minimum		40	60
Maximum		90	100
Sum		1370	1670

Source: IBM SPSS Version 22

Based on Table 4, it can be seen that the cruel or normal esteem of students' pre-test learning results is 65.24 from the perfect score accomplished by understudies within the adequate category. The standard deviation is 14.007 which shows noteworthy comes about within the pre-test comes about on numeracy. The recorded change of 196.190 measures how broadly the pre-test values spread. The extend or extend of values from the numeracy pre-test is 50 which is the distinction between the most extreme esteem of 90 and the least esteem of 40. The mode is 60 and the middle is 70. On the average esteem of learning results some time recently treatment employing a games-based problem-based learning (PBL) show. based on Table 4, it can be seen that the cruel or normal esteem of students' post-test learning results is 79.52 out of an perfect score of 100 accomplished by students within the great category. Standard deviation 10.235 which appears critical comes about within the post-test comes about on numeracy. The recorded fluctuation of 104.762 measures how broadly the post-test values spread. The extend or run of values of the numeracy post-test is 40 which is the contrast between the most extreme esteem of 100 and the least esteem of 60. The mode is 80 and the middle is 80. On normal, the esteem of learning results after treatment employing a games-based problem-based learning (PBL) demonstrate. To test the information theory, to begin with test whether the pre-test and post-test information are typical, to be specific the information ordinairness test to analyze whether the leftover values on the pre-test and post-test are regularly disseminated or not..

The starting organize of investigation begins with the ordinairness test. The information typicality test is utilized to decide whether the information is regularly conveyed or not. Testing the ordinairness of pre-test and post-test scores on understudy numeracy employments Shapiro-Wilk since the test utilized is less than 50 understudies. In the event that the importance esteem ≥ 0.05 at that point the information is announced ordinarily dispersed, something else in case the centrality esteem ≤ 0.05

at that point the information is pronounced unusually conveyed. The taking after are the comes about of information handling utilizing the SPSS adaptation 22 test..

Table 5 Normality Test of Numeracy

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
pretest_numeracy	.157	21	.192	.939	21	.212
posttest_numeracy	.233	21	.004	.915	21	.070

Source: IBM SPSS Version 22

Based on table 5, the comes about of the typicality test calculation utilizing SPSS form 22, the pre-test importance esteem is 0.212 and the pot-test noteworthiness esteem is 0.070. In understanding with the choice making within the Shapiro-wilk test in the event that the noteworthiness esteem ≥ 0.05 , it can be concluded that the pre-test and post-test scores on understudy numeracy are regularly disseminated.

The matched test t-test test was utilized to decide the impact of the problem-based learning (PBL) demonstrate based on diversions on the numeracy of course IV UPT SPF SD Inpres Layang III understudies. The premise for making combined test t-test choices is as takesafter:

- If the Sig value > 0.05 , then H_a is rejected and H_0 is accepted. Then the data has no effect of problem-based leaning (PBL) model based on games on numeracy.
- If Sig value < 0.05 , then H_a is accepted and H_0 is rejected. Then the data there is an effect of problem-based leaning (PBL) model based on games on numeracy.

Tabel 6 Paired Sample T-Test

	Paired Differences					T	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Paired Sample 1: pretest_numeracy - posttest_numeracy	-14.286	15.675	3.421	-21.421	-7.150	-4.176	20	.000

Source: IBM SPSS Version 22

Based on table 6, the calculation of the combined test t-test test appears the sig. (2-tailed) esteem of 0.000 in agreement with the combined test t-test choice making in the event that the sig esteem < 0.05 , it can be concluded that there's an impact of the problem-based learning (PBL) show based on diversions on the numeracy of lesson IV UPT SPF SD Inpres Layang III understudies.

Discussion

Based on the comes about of the ponder after applying the games-based problem-based learning (PBL) show, it is known that there's a dismissal of H_0 and H_a , meaning that there's an impact of the games-based problem-based learning (PBL) show on understudy proficiency and numeracy in terms

of the learning prepare where understudies are more dynamic and more energized amid the learning prepare. The relationship between the investigate comes about and the hypothesis utilized, specifically agreeing to Arrend in Elfrida, states that the problem-based learning (PBL) show is planned essentially to help understudies in creating their considering, problem-solving, and mental abilities through different genuine circumstances or reenacted circumstances, and ended up free and autonomous learners. This implies that the problem-based learning (PBL) demonstrate could be a learning approach that looks for to apply issues that happen within the genuine world as a setting for understudies to hone how to think basically and pick up information and aptitudes in tackling issues..

The problem-based learning (PBL) demonstrate based on transfer recreations could be a learning approach that combines issue understanding with fun amusement exercises and effectively includes understudies. In this show, understudies are empowered to create proficiency abilities through various challenges that must be completed within the shape of recreations planned to progress the capacity to get it perusing, be able to get data and perusing substance, be able to pick up a parcel of modern information, be able to relate the substance of the perusing and be able to create conclusions from the perusing substance. In the mean time, numeracy is able to utilize different sorts of numbers or images related to science, be able to analyze data shown in different shapes, and translate the comes about of the examination to anticipate from making choices..

Based on the comes about gotten from the proficiency pre-test comes about, there was a critical increment in students education aptitudes. Within the proficiency pre-test, the normal score accomplished by understudies was 60.95 with “sufficianta” assessment criteria whereas within the post-test education normal score expanded to 80.48 with “good” evaluation criteria. This increment of 19.53 focuses demonstrates a positive impact and change in understudy learning results from the application of the games-based problem-based learning (PBL) show on understudy proficiency. Whereas within the numeracy pre-test, the normal esteem achieved by understudies was 65.24 with the evaluation criteria of “sufficianta” whereas within the education post-test the normal esteem expanded to 79.52 with the appraisal criteria of “good”. This increment of 14.28 focuses demonstrates a positive impact and enhancement in learning results from the application of the games-based problem-based learning (PBL) show to understudy numeracy. When seen from the least standard of completeness (KKM) for the proficiency post-test which has an normal esteem of 80.48 whereas the numeracy post-test has an normal esteem of 79.52 which appears that most understudies have come to or indeed surpassed the set standard of completeness.

In this way, it can be concluded that the games-based problem-based learning (PBL) show includes a noteworthy increment from pre-test to post-test towards progressing students education and numeracy aptitudes. The accomplishment of an normal score that surpasses the least standard of completeness (KKM) appears that the games-based problem-based learning (PBL) demonstrate is effective in making a difference move forward understudy learning results, particularly within the literacy and numeracy abilities of understudies in rudimentary schools, and is able to form learning more fun, cultivate inspiration, and dynamic association of understudies within the learning prepare.



Picture 1



Picture 2



Picture 3



Picture 4

4. CONCLUSIONS AND SUGGESTIONS

Conclusions

Based on the comes about of investigate conducted in course IV UPT SPF SD Inpres Layang III, analysts draw conclusions based on the comes about of information collection, to be specific:

1. The usage of learning with the utilize of a games-based problem-based learning (PBL) show in lesson IV UPT SPF D Inpres Layang III can be pronounced great. It can be seen from the learning handle that the utilize of problem-based learning (PBL) models can increment understudy learning inspiration, empower understudies to work collaboratively, and progress abilities in fathoming issues.
2. The games-based problem-based learning (PBL) show influences the education of lesson IV UPT SPF SD Inpres Layang III understudies. Judging from the normal esteem on the education pre-test, specifically 60.96 categorized as “Fair” and the proficiency post-test, specifically 80.48 categorized as “Good” which appears the victory of understudies in understanding the fabric but moreover shows the improvement of much superior proficiency abilities after taking an interest in learning and from the comes about of combined test t-test testing gotten a centrality esteem of $0.000 < 0.05$, it is known that there's a noteworthy impact on the education of understudies IV UPT SPF SD Inpres Layang III.
3. The problem-based learning (PBL) demonstrate based on diversions influences the numeracy of

lesson IV UPT SPF SD Inpres Layang III understudies. Judging from the normal esteem on the numeracy pre-test which is 65.24 categorized as “Fair” and the numeracy post-test which is 79.52 categorized as “Good” which appears the victory of understudies in understanding the fabric but moreover shows the advancement of numeracy abilities that are much way better after taking an interest in learning and from the comes about of combined test t-test testing gotten a importance esteem of $0.000 < 0.05$ it is known that there's a critical impact on the numeracy of understudies IV UPT SPF SD Inpres Layang III.

Suggestuons

Proposals from this consider are recommended as input for schools to coordinated problem-based learning (PBL) models into the educational modules so that understudies are commonplace with learning approaches that emphasize genuine issue tackling. And as an input for instructors to plan issues that are relevant and in understanding with students genuine lives and can prepare their basic considering aptitudes.

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