The Relationship of Image Media and Audiovisual Learning Styles to Learning Outcomes of Class X IPS Students

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Abstract. This study aims to determine the relationship between Image Media and the results of learning geography class X Social Sciences at SMAN Tambun South, To determine the relationship between Audiovisual learning style and the results of learning geography, To find out the relationship between Picture Media and Audiovisual1 Learning Style on the results of learning. As for what is used in this research, it is descriptive correlation research. Correlation or correlational research is research conducted by researchers to determine the level of relationship between two or more variables without making changes, additions, or manipulation of existing data. The population in this study was class X IPS at SMAN Tambun Selatan. The sample in this study was 285 people. Based on the correlation table above, the r-count value for the Image Media variable (X1) is 0.285, while the table value for N = 285 is 0.115. So 0.285 > 0.115, then H0 is rejected, and Ha is accepted. Picture Media (X1) is significantly related to Learning Outcomes (Y). Based on the coefficients table above, the count value for the Audiovisual Learning Style variable (X2) is 0.160, while the table value for N = 285 is 0.1. So 0.160 > 0.115, then H0 is rejected, and Ha is accepted, it can be concluded that partially the Audiovisual Learning Style variable (X2) is related to Learning Outcomes (Y). The analysis results in the table above, namely the ANOVA test, obtained an F-count value of 14.847 while the F-table (α= 0.05) for N = 285 was 2.63. So F-count > from F-table (α=0.05) or 14.847 > 2.63 with a significant level of 0.000 because 0.000 <0.05, it can be said that Picture Media (X1) and Audiovisual Learning Styles (X2) together have a positive effect on Learning Outcomes (Y). R-value of 0.309. This shows that 30.9% of Picture Media (X1) and Audiovisual Learning Style (X2) simultaneously affect Learning Outcomes (Y), while the remaining 69.1% is influenced by other factors not examined in this study.

Keywords: Picture Media, Audiovisual Learning Style, and Learning Outcomes

1   Introduction

The teacher is the generator of the world. They are generating all sources of hidden abilities in every individual. In the hands of teachers, the nation's next generation will become caliphs (leaders) on earth. Teachers must have a noble personality so they can set a good example. Not only can they be admired and imitated, but teachers must also be intelligent figures and never run out of brilliant thoughts.

Providing the best service in every learning activity is a teacher's responsibility, including in the assessments carried out by the teacher. The results of related research conclude that the pedagogical competence of teachers at Al-Muttaqin Sungai Duren Kindergarten in carrying out early childhood learning assessments differs from assessment principles. This happens because of their lack of understanding of the pedagogical competencies teachers must master and their lack of knowledge about assessing early childhood learning (Mundia et al., 2020). The teacher's need for understanding of teacher competence assesses children's constraints.

The learning process teachers provide is not just teaching, defined as transferring knowledge *to* students. However, teachers must also be able to educate (*transfer of values*) students according to the norms that apply in society, train (*transfer of skills*) all the potential that students have, and guide (*transfer of experiences*) students based on the experience of the teacher. As Khasanah states in her book, an important message conveyed pleasantly is education in the subconscious, which will stick to the most profound memories and be carried away in dreams, even when asleep (Khasanah, 2020).

The teacher's big task will only be realized appropriately if the teacher understands that before going into the field (teaching students), the teacher must have a frame of mind and concept of a teaching and learning process. A teacher's frame of mind and understanding of learning concepts will create an educational learning atmosphere. Linking learning experiences with student motivation is a reasonable strategy for encouraging pupils to learn. Teachers are very interested in this problem as people who teach students. As educators or future educators, we should constantly strive to be able to boost students' enthusiasm to learn, particularly those who struggle with it (Suprihatin, 2015).

We often see learning models like this mushrooming in the archipelago. However, not all teachers, especially teachers in secondary schools, present this boring learning model. There are quite a few secondary school teachers, both public and private, who understand the meaning of learning and have high ideals, so they dare to take up arms to create new movements in presenting learning based on existing models. The following research, for example, provides an education model for Package A equivalent to SD/MI for Civics subjects. After testing, learning using the SD/MI package A equivalency module for PPKn subjects influences the learning process (Hafni & Khasanah, 2019).

An intelligent teacher is required to be multi-talented so that he can produce students who are not only intellectually intelligent but also the nation's next generation who become human beings who can do (to do), become good *individuals* (*to be*), and can live in society (*to live together*). As a teacher, equip yourself with

knowledge and a multitude of abilities. Let us fix ourselves before fixing others. Preparing teaching materials and teaching media is very important, as the following research results produce interactive multimedia learning media in the form of IT Project Management learning media applications on Project Management Methodology material, which aims to facilitate the teaching and learning process between lecturers and students. The IT Project Management learning media in the Project Management Methodology material explains a project's initiation, planning, implementation, monitoring, closure, and documentation required to develop an IT project (Mustika et al., 2018).

Teaching methods are "Used by teachers in establishing relationships with students during teaching. "Methods are the methods or paths that must be taken to achieve a certain goal. In learning, methods are used to gain knowledge, skills, and skills. The methods used will become a habit." (Slameto, 2010).

Indeed, to achieve the goal, it must be maximized so that what you want to achieve has good value. Moreover, to educate students, a teacher must be intelligent and rational. The teacher acts as a motivator and is required to provide a broad stretch of road for students to learn independently. Even worse, such a heavy curriculum load is almost completely oriented towards the development of the cognitive domain alone, conveyed through a delivery system pattern. Meanwhile, the affective and psychomotor domains receive almost no attention for their best development, even though developing these two domains is critical in forming good morals and character (Qorib, 2020).

This broad stretch of road, including the achievements of the curriculum above, can be provided through appropriate teaching methods. The study's findings demonstrate that all students possess the same degree of learning independence and aptitude for solving mathematical puzzles, regardless of their preferred auditory, visual, or kinesthetic learning style. Furthermore, research has shown that pupils' capacity to solve mathematical problems increases with their degree of learning independence (Sundayana, 2018).

The problem is how we should choose these methods when teaching. This depends on our goals for teaching, what materials will be taught, which students we teach, and what facilities will be used. However, in a teaching event, there is one primary method used.

The teaching method is a prerequisite that can be used as a guide by the teacher so that the teacher gets an effective way of educating students. The teacher must also try to discriminate the usefulness of a method so that the teacher is far from poverty in mastering teaching methods. The study's results revealed a significant difference between the average pedagogic competency score of early childhood education teachers who took online training methods *and* the average pedagogic competency score of early childhood education teachers who took the online training method.

Face-to-face training, and there is an interaction effect between training methods and persistence on the pedagogic competency scores of early childhood education teachers (Ciptaningtyas et al., 2020).

Geography education is one of the subjects of the national education system, taught at all levels of education in Indonesia. This shows the importance of geography for students in everyday life. Geography is a science that supports life throughout life and encourages improving life. Under the progress of human thinking and the sharpening of the meaning of science, geography is also experiencing development in terms of theory, approach, and method. Because of the breadth of his research, people can find solutions to problems concerning their surroundings, with a focus on the ecological and spatial dimensions of human existence. Geography is the study of the planet, its features and processes, the geographical and causal relationships that exist between people and their surroundings, and how people interact with specific locations.

Geography is a subject that requires much variation in learning so that students can experience the material being taught well and achieve the expected competencies optimally. Geography learning still predominantly uses the lecture method based on observations and realities in the field. They were applying consistent methods, causing students to be less interested and to get bored with geography lessons. Research that invites educators to utilize e-learning in classroom learning is as follows: Geography material in e-learning needs to be added so that learning in one semester or one year of learning can be comprehensively assisted through e-learning (Widodo & Mukminan, 2018). Other research states that geography material in e-learning needs to be added so that learning in one semester or year can be comprehensively supported through e-learning.

While learning occurs, some students play on their cell phones, chat, get sleepy, and even sleep in class, and often pretend to go to the toilet to get out of class. Students are passive in teaching and learning activities. When the teacher asks all the students who know the answer to raise their hands, the students still need to participate more actively and respond better to the questions sometimes. The teacher is even forced to answer the students' questions. The lecture method requires teachers to play an active role in learning activities, while students only listen, take notes, and express opinions when given the opportunity by the teacher. The results of research related to methods state that creative application of the Mind Mapping method in the Cooperative Learning learning approach can improve students' cognitive mastery of the material. It can be suggested that Integrated Social Sciences teachers should try applying the Mind Mapping method in the Cooperative Learning learning approach as a variation of teaching methods in the classroom because it has been proven to increase students' mastery of the material (Ningsih, 2010).

Referring to the learning objectives of Geography listed in the Content Standards and Graduate Competency Standards, Geography learning is carried out so that students can achieve the following competencies: Students possess the essential skills of logical and critical thinking, curiosity, inquiry, problem-solving, and social life skills. They also have a commitment to and awareness of social and human values. Finally, students can communicate, cooperate, and compete in a pluralistic society on a local, national, and international scale. Even though it has very noble aims, the quality of Geography teaching often needs to be improved. Educators are expected to be able to utilize this e-learning as an alternative to improving learning outcomes and student learning independence (Widodo & Mukminan, 2018).

Teachers often find various classic problems related to the learning process in class, as well as low student achievement and a lack of motivation in Geography lessons at school. This happens because students generally think that geography is a complex subject. After all, there is much material that must be memorized. Nowadays, there is an impression that teaching is boring because the material is too broad and only memorizes facts.

Apart from that, teachers' learning methods are less attractive to students, and teachers often do not have explicit references and do not create active and creative learning conditions. Boredom also arises because subjects are not appropriate to the child's level of development and life context. In Geography learning activities, the activities are centered on the teacher. Students are placed more simply as objects and recipients of information who tend to be passive.

2   Method

Scientific techniques for gathering data for certain uses and goals are known as research procedures. Humans can use the outcomes of study. Research data can be utilized to comprehend, resolve, and predict issues.

The research method used was a survey method by collecting data through research instruments and distributing questionnaires to class X IPS students at SMAN Tambun Selatan, the results of which were then processed through the SPSS for Windows version 20 program to determine the relationship between Media Pictures and Audiovisual Learning Styles on the results of geography learning for class X IPS at SMAN Tambun Selatan. This method examines the effect of two independent variables and one dependent variable.

This study uses a quantitative approach pattern. As explained by Arikunto (20 l0:12), quantitative research uses many numbers, from data collection, interpretation of the data, and the appearance of the results. Quantitative research is research that is not concerned with data depth. What is important is that it can record as much as possible from a large population. According to Masyhuri & Zainudin (2010:13), a quantitative research approach is synonymous with deductive research, namely departing from general issues (theory) to specific matters, so this research must have a theoretical basis.

Based on the problems and research objectives, this study uses quantitative research with research objectives that explain the causal relationship between variables through hypothesis testing. According to Indrawan (20l6:5l), quantitative research is a form of scientific research that examines one problem from one phenomenon and looks at possible links or relationships between variables in the problem set. The data obtained in this study will be processed, analyzed, and further processed based on the theory obtained during lectures and literature review. The research method is designed through research procedures starting with operational variables, identifying the kind and source of data, data gathering techniques, and ending with a design of hypothesis testing and statistics. The population that became the object of this study were all students in class X IPS at SMAN Tambun Selatan, totaling approximately 60

people. In this study, the sample was 50 people who were part of the population in class X IPS at SMAN Tambun Selatan. The sampling method used in this study consisted of purposive sampling, namely the selection of samples deliberately, in this case, students in class X IPS at SMAN Tambun Selatan.

3   Results

3.1   Normality test

Table 1. SPSS Normality Test Calculation Results

One-Sample Kolmogorov-Smirnov Test

		Media Gambar	Gaya Belajar Audiovisual	Hasil Belajar
N		285	285	285
Normal Parameters^{a,b}	Mean	61.4140	62.8000	66.1368
	Std. Deviation	5.14889	5.30466	6.07571
Most Extreme Differences	Absolute	.135	.095	.142
	Positive	.074	.058	.080
	Negative	-.135	-.095	-.142
Test Statistic		.135	.095	.142
Asymp. Sig. (2-tailed)		1.135^c	.200^c	2.559^c

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

Based on Table 1 above, the significance value (2-tailed) of the Image Media variable (X_1) is 1.135, the Audiovisual Learning Style variable (X2) is 0.200, and the Learning Outcomes variable (Y) is 2.559. The data is considered normally distributed since all three of the measuring device's 2-tailed significance values are greater than 0.05. Meanwhile, the Kolmogorov-Smirnov value for the Image Media variable (X_1) is 0 . 135, the Audiovisual Learning Style variable (X2) is 0.096, while for the Learning Outcome variable (Y) is 0.142, meaning that the residual data is typically distributed.

The relationship between media images and audiovisual learning styles on the results of learning geography class X IPS at SMAN Tambun Selatan.

Table 2. Anova Test Result

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	850.723	1	850.723	24.993	.000[b]
	Residual	9632.940	283	34.039		
	Total	10483.663	284			

a. Dependent Variable: Hasil Belajar

b. Predictors: (Constant), Media Gambar

The calculated F value is 24.993, and the F table is 2.65, so F $_{calculated}$ > F $_{table}$ then H0 $_{is}$ rejected. Ha is accepted, the probability value (sig) < α (0.000 < 0.05), then H $_0$ is rejected. This shows that the direction coefficient regression of Y on X $_1$ is significant at the 0.05 level. A simple linear regression model can be used to predict the relationship between geography learning outcomes for class X IPS at SMAN Tambun Selatan, which is influenced by media image. Table 4.17 displays the t-test calculation, which shows that t $_{count}$ > t $_{table}$ (4.999 > 1.97). This indicates that the regression is significant, indicating that the alternative hypothesis—that is, that there is a significant influence between visual media on the results—has been verified and can be accepted.of class X IPS geography learning at SMAN Tambun Selatan or in other words, the higher the picture media, the higher the results of geography learning for class From the explanation above, it can be said that "There is a positive relationship between the Problem-Based Learning Model and Biology Learning Outcomes for Class XI MIPA," which has been tested and accepted. The great degree of link between X1 and Y is indicated by the correlation coefficient (r xy) = 0.730. In the meantime, the table above's coefficient of determination indicates that R square = 0.534, meaning that 53.4% of the Biology Learning Outcome variables are susceptible to impact by the variables in the Problem-Based Learning Model. for Class XI MIPA. And 27% from external factors.The relationship between audiovisual learning styles and the results of geography learning in class X IPS at SMAN Tambun Selatan.

Table 3. . Linear Regression X $_2$ and Y

Anova Untuk Regresi Liniear X₂ dan Y

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	267.388	1	267.388	7.407	.007[b]
	Residual	10216.275	283	36.100		
	Total	10483.663	284			

a. Dependent Variable: Hasil Belajar

b. Predictors: (Constant), Gaya Belajar Audiovisual

Calculated F > F table, then H 0 is rejected, and Ha is accepted, the probability value (sig) < α (0.007 < 0.05), then H 0 is rejected. This shows that the coefficient of the regression direction of Y on

The t-test calculations are shown in Table 4,

that is t count > t table (2.722 > 1.97). Since the alternative hypothesis has been investigated and found to be valid, the regression is significant., namely that there is a significant influence between audiovisual learning styles on geography learning outcomes for class X IPS at SMAN Tambun Selatan or in other words, the higher Media images, the higher the learning outcomes of geography class X IPS at SMAN Tambun Selatan. Using the justification provided, it can be stated that "There is a positive relationship between the audiovisual learning style and the geography learning outcomes for class X IPS at SMAN Tambun Selatan " has been tested and accepted.

The correlation coefficient's significant test resulted from Table 3. The R-value was 0.460, and the R square value = 0.211, which implies that 46% of the geography learning outcomes variable for class X IPS at SMAN Tambun Selatan can be influenced by the media image variables and audiovisual learning styles and 54% from external factors.

The relationship between media images and audiovisual learning styles on the results of learning geography class X IPS at SMAN Tambun Selatan.

Table 4. . Dependent Variable

ANOVAª

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	998.765	2	499.382	14.847	.000ᵇ
	Residual	9484.899	282	33.634		
	Total	10483.663	284			

a. Dependent Variable: Hasil Belajar

b. Predictors: (Constant), Gaya Belajar Audiovisual, Media Gambar

The calculated F value is 14.847, and the F table is 2.65, so $F_{calculated} > F_{table}$, then H_0 is rejected. Ha is accepted, the probability value (sig) < α (0.007 < 0.05), then H_0 is rejected. This shows that the coefficient The direction of the regression of Y on of the analysis in the table, the variable value for the coefficient of variable class X IPS at SMAN Tambun Selatan. Furthermore, the variable value for the coefficient of variable Social Sciences at SMAN Tambun Selatan.

The coefficient of determination from the table above shows the value of R square = 0.167, which implies that 40.9% of the geography learning outcomes variable for class X IPS at SMAN Tambun Selatan (Y) can be explained by media images (X1) and audiovisual learning styles (X2) so that it can be said that the relationship between image media and audiovisual learning styles on geography learning outcomes for class X IPS at SMAN Tambun Selatan by 40.9%. Then, to find out the partial correlation coefficient between variables X1 and Y with X2 being controlled and know the relationship of the partial correlation coefficient between variables X2 and Y with X1 being controlled.

4   Discussion

Based on the correlation table, the calculated r value for the image media variable (X 1) is 0 . 285, while the t table value for N = 285 is 0.115. So 0 . 285 > 0.115, then H 0 is rejected. Ha is accepted, it can be stated that Image Media (X 1) has a significant relationship to Learning Outcomes (Y) t count > t table (4.999 > 1.97) then the regression is significant, meaning the hypothesis the alternative has been tested for truth and can be accepted, that is, there is a significant influence between media images on the results of geography learning for class X IPS at SMAN Tambun Selatan or in other words, the higher the media image, the higher the learning outcomes for geography class X IPS at SMAN Tambun Selatan, the correlation coefficient X and Y is significant and significant. In contrast, in the first row, the correlation coefficient (r xy) = 0.730 indicates that the relationship between X1 and Y has a strong level of relationship that is equal to 73%. In learning activities, one of the media most used by teachers at school is image (visual) media with material whose absorption is through views or visions that can stimulate and motivate students in the learning process.

The correlation table above shows that the calculated r value for the audiovisual learning style variable (X 2) is 0 . 160, while the t table value for N = 285 is 0.115. So 0 . 160 > 0 .115, H0 is rejected, and Ha is accepted. Audiovisual learning style (X 2) is significantly related to learning outcomes (Y). t count > t table (2.722 > 1.97), then the regression is significant, meaning that the alternative hypothesis has been tested and can be accepted, namely that there is a significant influence between the audiovisual learning style on the results of class learning at SMAN Tambun Selatan or in other words the higher the Media picture, the higher the geography learning results for class X IPS at SMAN Tambun Selatan. The R-value is 0.460, and the R *square value* = 0.211, meaning that 46% of the variables are geography learning outcomes.

Multiple regression equation: the constant value = 38.140, the X1 coefficient value = 0.315, and the X2 coefficient value = 0.138. So the double linear regression equation is $y^ = 38.140 + 0.315X_1 + 0.138$ which means that media image has a positive influence on the geography learning outcomes for class (Y) can be explained by media images (X1) and audiovisual learning styles (X2), so it can be said that the relationship between image media and audiovisual learning styles on geography learning outcomes for class X IPS at SMAN Tambun Selatan amounting to 40.9%. The calculated F value is 14.847, and the F table is 2.65, so F calculated > F table, then H 0 is rejected. Ha is accepted, the probability value (sig) < α (0.007 < 0.05), then H 0 is rejected. This shows that the direction coefficient of The regression of Y on _.

Research related to and supporting the results of this study is that the use of varied media and learning motivation on learning outcomes has a significant influence on learning outcomes, namely 0.055%. The remaining 0.045% is influenced by other variables not examined in this study, namely learning facilities, students' understanding, and learning interests. The varied media studied here significantly strengthens the results of this study, where this study uses image media (Widiasih et al., 2018). In order to improve student learning behavior, teachers must assist adolescent students in increasing their drive for achievement, religion, and affiliation while maintaining an appropriate degree of power motivation (Atmoko et al., 2022).

The study's findings demonstrate that (1) groups receiving video media and groups receiving media images have different natural science learning outcomes, and (2) learning media interact with one another regardless of natural science learning outcomes in relation to the relationship between natural resource content and technology, environment, and technology (Oktavera, 2015). There are differences in student learning outcomes who use certain media; even group video media is more reliable than image media. Furthermore, this research can be continued concerning group videos in learning. Based on data analysis from other research results, it can be concluded that the application of e-learning assisted by Edmodo learning media affects student learning outcomes (Podungge et al., 2020). The various media used in learning above show an increase in learning outcomes by using learning media. In addition to this experience, there was a rise in drive and curiosity. Particularly for the natural science course, you should be more specific in stating your results and outlining how the academic poster will be used in the future (Ortiz, 2023). The produced product is an android-based performance instrument for soccer learning that adheres to the PJOK curriculum's assessment rubric. PJOK educators use it in practice as an evaluation tool for the PJOK football curriculum (Artanayasa et al., 2023).

5   Conclusion

The calculated r value for Image Media (X_1) is 0.285, while the t_{table} for N = 285 is 0.115. So 0.285 > 0.115, it is stated that Image Media ($X1$) is significantly related to Learning Outcomes (Y). This means that the alternative hypothesis has been tested and can be accepted. There is an influence between image media and the geography learning outcomes for class X IPS at SMAN Tambun Selatan; in other words, the higher the media image, the higher the learning outcomes. The correlation coefficient of X and Y is significant. In contrast, in the first row, the correlation coefficient (r_{xy}) = 0.730 indicates that the relationship between the use of image media in student storytelling helps students stimulate ideas for storytelling. This makes students' grades increase. Success is also achieved because of the relationship between members who support each other, help each other, and care.

In the correlation table above, the $_{calculated\ value}$ for the audiovisual learning style variable (X_2) is 0.160, while the t-table value for N = 285 is 0.115. So 0.160 > 0.115, H_0 is rejected, and Ha is accepted. The audiovisual learning style (X_2) is significantly related to learning outcomes (Y). t count > t table (2.722 > 1.97), then the regression is significant, meaning that the alternative hypothesis has been tested and can be accepted, namely that there is a significant influence between audiovisual learning styles on geography learning outcomes for class SMAN Tambun Selatan or in other words the higher the media picture, the higher the geography learning results for class X IPS at SMAN Tambun Selatan. The R-value is 0.460, and the R square value = 0.211, which means that 46% of the variables are geography learning outcomes. Hearing (audiovisual) is essential for students with an audiovisual learning style.

Multiple regression equation: the constant value = 38.140, the X1 coefficient value = 0.315, and the X2 coefficient value = 0.138. So, the multiple linear regression

equation is $y\hat{} = 38.140 + 0.315X\,1 + 0.138$, or Ho is rejected, which means that media images have a positive effect on the results of learning geography in class X IPS at SMAN Tambun Selatan. The value of R square = 0.167, which means that 40.9% of the geography learning outcomes variable for class X IPS at SMAN Tambun Selatan (Y) can be explained by media images (X1) and audiovisual learning styles (X2) so that it can be said that the relationship between image media and audiovisual learning styles on geography learning outcomes for class X IPS at SMAN Tambun Selatan equal to 40.9% The calculated F value is 14.847 and F table is 2.65 so F count > F table then H 0 is rejected. Ha is accepted obtained probability value (sig) < α (0.007 < 0.05), then H 0 is rejected. This shows that the coefficient of the Y regression direction on X 1 is significant at the 0.05 level; namely, the multiple linear regression model can be used to predict the relationship. The results of geography learning for class X IPS at SMAN Tambun Selatan are influenced by media images and audiovisual learning styles.

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