# Influence of Simulation Games Technique on Content Mastery Service to Understanding Student Learning Styles

**Puput Puspita**✉ **Dini Rakhmawati**

Universitas PGRI Semarang, Indonesia

| Info Articles | Abstract |
|---|---|
| | This study aims to determine the effect of simulation games techniques through content mastery services to the understanding of student learning styles. The type of this research is quantitative research with quasi exsperimental design design using nonequivalent control group design. Samples taken were 62 students of class XI IPS 1 and IPA 5 by using cluster random sampling technique. Based on the results of calculations using t test obtained t count> ttable at 5% significance level with db 60 that is 2.537> 1.671. It can be concluded that simulation games technique through content mastery service can improve understanding of student learning style of class XI SMA Negeri 1 Gubug. |

## How to Cite

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✉ Address correspondence:
Jalan Sidodadi Timur Nomor 24 - Dr. Cipto, Karangtempel, Semarang
Timur Kota Semarang, Jawa Tengah 50232
E-mail: puputpuspita068@gmail.com

**INTRODUCTION**

School as an intermediary media to educate the nation's life in accordance with the mandate of the opening of the 1945 Constitution has a considerable role in realizing the goals of education. Through these learning opportunities, the growth and development of students will be directed and given support that has been packaged in the school curriculum that is implemented in the form of learning process. Learning is a process by which a person undertakes to gain a whole new behavioral change, as a result of his own experience in interaction with his environment (Slameto, 2010: 2).

Learning is also a must for every human being, be it packed formally and non formally. Therefore, students are expected to follow the process of teaching and learning activities well, so that later can obtain satisfactory results. However, the success of student learning can be influenced by many factors that originate within and outside the student self primarily related to learning styles. In this case everyone has and develops his own learning style / style, because it is influenced by the basic temperament and habit and develops with time and experience. The pattern also needs to be adjusted to the characteristics of the field of study that entered someone (Susilo, 2009: 98). All of the above factors are very influential on the process of achieving one's success / achievement through teaching and learning activities not only at school but also at home.

Given these factors will allow a person to adapt himself to the style of learning that they love and how to make it easier for someone in their learning process. For example, most students are not able to manage the time to study, there are still many students who often copy the friend's PR, plus students will learn if there is a repetition, and no motivation that is formed in students or spirit in students so that students make it lazy to Learning, from all these factors can affect student learning outcomes. In addition, the results of these students' learning determine how much achievement they will achieve according to their own learning styles. Because each student has a different learning style - according to aspects of development and age of students. The more mature age and stage of development a person can be said enough, it will be more diverse and also developed learning styles that students have.Menurut hasil penelitian yang dilakukan oleh Bire, dkk (2014:170) dalam Jurnal Kependidikan Vol. 44 No. 2 pada bulan November menunjukkan bahwa gaya belajar visual, gaya belajar auditorial, dan gaya belajar kinestetik memiliki hubungan positif dengan prestasi belajar. Koefisien gaya belajar visual sebesar 0,080; gaya belajar auditorial sebesar 0,043; dan gaya belajar kinestetik 0,079. Artinya, semakin meningkat penggunaan gaya belajar visual, gaya belajar auditorial, dan gaya belajar kinestetik maka semakin meningkat prestasi belajar siswa.

Based on the Checklist Results Problems that have been disseminated and analyzed when the researchers conducted the internship 3 at SMA Negeri 1 Gubug class XI in August 2016/2017 academic year, indicating that there are still many students who have problems in learning. This is evidenced by 40.5% of students experiencing irregularities in time in learning, 34.5% of students often copy friend PR, and 31.8% of students learn if there is a repeat course.

In response to that, the researchers tried to provide content mastery services with simulation games techniques to find out how far the students' understanding of their learning styles. According to Nasution (2006: 94) learning style is a consistent way done by a student in capturing stimulus or information, how to remember, think and solve problems. So that learning style can be interpreted as a preferred way in doing activities thinking, processing and understand an information. Learning styles are the ones that tend to be chosen by someone to receive information from the environment and process the information (Susilo, 2009: 94).

Thus, it would be appropriate to provide counseling and guidance services in developing an understanding of learning styles through content mastery services. Because through these services can allow for students to know the differences in individual learning styles that can support their success in achieving. Because learning styles have several types and each student will likely have different types of learning styles. In addition, by using content mastery services then it can provide facilities for all students

in knowing the extent of their understanding of different learning styles. According to Prayitno (in Tohirin 2015: 152) content mastery service is a service of assistance to individuals (students) both alone and in groups to master a certain ability or competence through learning activities.

The technique used in this content mastery service is simulation games. This technique is a person's behavior to behave like a person intended with the intention that the person can learn more about how that person feels and does something. So the student practiced to play a role like everyone else (Roestiyah, 2008: 22). According to Majid (2014: 206) simulation games are playing a role, the students compete to achieve certain goals through the game by complying with the rules specified. Using this technique, students are able to portray and practice their own learning styles in the classroom in a classical way. In addition, so that they can know their different learning styles with other students, and they can have an understanding and be able to develop their learning styles more creatively, become unique and can have a positive impact on their learning spirit in following learning activities and can optimize their learning achievement more Well from before.

This is supported also based on the results of research conducted by Riza et al (2014: 35) in Guidance and Counseling Journal Vol 3 No. 1 that emotional maturity of fourth grade students of SD Negeri 01 Sijambe before getting content mastery service by playing technique is in criteria While the percentage is 59.96%. While the emotional maturity condition of students after being given content mastery services with the technique of playing (games) are at high criteria with a percentage of 78.08%. So the emotional maturity of fourth grade students of SD Negeri 01 Sijambe before and after getting content mastery service with game technique (games) has increased by 18.12%. In accordance with the results of this study, it can be understood that the emotional maturity of fourth grade students of SD Negeri 01 Sijambe Pekalongan Regency can be improved through content mastery services with the technique of playing (games).

## METHODS

In this quantitative research, researchers used quasi exsperimental design method. Quasi exsperimental method is research that seeks to find the influence of certain variables against other variables in strictly controlled conditions. Quasi exsperimental method is used to determine the effectiveness of simulation games techniques to improve understanding of learning styles of students between before and after getting simulation games techniques. The quasi exsperimental design used is nonequivalent control group design

## RESULTS AND DISCUSSION

### Normality Test

To test the normality of sample distribution used Lilliefors test. Based on the calculation of Lilliefors test that has been tested, obtained the result $L_0 > L_{tabel}$ maka $H_a$ received, meaning the sample comes from the normal distribution. The sample normality test is in the following table:

**Table 1**.Normality Test

| Class | Lo | Ltabel | Conclusion |
|---|---|---|---|
| Experimental | 0,8029 | 0,1591 | Normally Distributed |
| Control | 0,8138 | 0,1591 | Normally Distributed |

**Homogeneity Test**

Homogeneity test in this study aims to determine whether both the value of the results of pre test and post test has the same variant or not. To test the homogeneity of the sample used F test. Based on the results of the F test, the following results are obtained:

**Table 2**. Homogeneity Test

| Sampel | $F_{hitung}$ | $F = \dfrac{S_b^2}{S_k^2}$ | $F_{tabel}$ | Conclusion |
|---|---|---|---|---|
| Experimental | 85,114 | 1,614 | 1,84 | Homogen |
| Control | 52,718 | | 1,84 | Homogen |

Because $F_{hitung} < F_{tabel}$ in the pretest which is 1,614< 1,84 so $H_o$ was accepted, so, it can be concluded that the samples come from the same population or homogenous.

**Hypothesis Test**

Data analysis which have been used in this research use t-test. J.P Guillford (in Sukarno, 2015: 65) explains the t-test formula that can be used for N equals:

$$t = \dfrac{\bar{x}_1 - \bar{x}_2}{\sqrt{\dfrac{\Sigma x_1^2 + \Sigma x_2^2}{N_1(N_2-1)}}}$$

Explanation :

$\bar{x}_1$      : Average $X_1$

$\bar{x}_2$      : Average $X_2$

$N_1$      : Sum $N_1$

$N_2$      : Sum $N_2$

$$t = \dfrac{\bar{x}_1 - \bar{x}_2}{\sqrt{\dfrac{\Sigma x_1^2 + \Sigma x_2^2}{N_1(N_2-1)}}}$$

$$t = \dfrac{89,77 - 84,41}{\sqrt{\dfrac{2553,41 + 1581,548}{31(31-1)}}}$$

$$t = \dfrac{5,350}{\sqrt{\dfrac{4134,958}{930}}}$$

$$t = \dfrac{5,350}{\sqrt{4,446}} = \dfrac{5,350}{2,108} \quad t = 2,537$$

With db=N-2=60 in significant level of 5% for $t_{table}$ (60=0,05) = 1,671 so $t_{count} > t_{table}$, 2,537 > 1,671.

So it can be concluded that the decision test hypothesis, tcount> ttable, then HO rejected and Ha accepted. So the hypothesis states that simulation games techniques through content mastery services can improve understanding of student learning styles.

Based on the results of descriptive analysis that has been done from the pre-test data in the experimental group at a significant level of 5% obtained the score 2429 with an average of 78.35 while the post-test results in the experimental group obtained a score of 2783 with an average of 89.77. Can be identified that the learning style in the experimental group students after the technique given simulation

games through content mastery service is high with an average increase of 11.42. The result of descriptive analysis that has been done from the control group pre-test data has a score of 2444 with an average of 78.83 while from the post-test results the control group has a score of 2617 with an average of 84.41. It can be identified that learning styles in control group students with non-technical content mastery services only increased by 5.58.

Judging from the calculation of t-test formula to prove the research hypothesis, obtained the result of Thitung of 2,537 then consulted with Ttabel at significant level with N = 60 that is equal to 1,671, then Thitung> Ttable is 2,537> 1,671. On the basis of these calculations, the working hypothesis (Ha) accepted that stated simulation games techniques through content mastery services can improve understanding of learning styles in students of class XI SMA Negeri 1 Gubug.

Giving treatment or treatment done six times, after given treatment given post-test students. Furthermore, what is done after the post-test is the analysis of pretest-posttest data through the analysis phase using the t-test formula. Implementation of simulation games sometimes do not run properly as desired, there are still students who feel embarrassed when appearing or not confident when argued. However, the students are still given the opportunity to learn to perform.

Based on the results of UCA from each meeting that at the first meeting almost some of the students have enough understanding and able to master the material presented by researchers. But some are still unable to understand the material presented. There are some students who have started to listen well, pay attention and show enthusiasm both in simulating games related to the material. In addition to the actions of some of the students also began to have views to apply the material delivered. Furthermore, at the second meeting seen the development because the material presented continuously. At the third and fourth meetings most of the students have begun to show their enthusiastic attitude by asking questions, as well as answering questions asked by researchers. Then able to show their responsibility attitude when they are wrong in simulating the game. Then the fifth and sixth meetings on kinesthetic learning style materials and strategies facilitate kinesthetic learning style, the average student has confidence to argue, master and understand the material presented and can pay attention and listen well and able to be applied through simulation game. So it can be concluded that there is improvement and good development of all students in showing their active attitude, student enthusiasm, and in terms of understanding and how they are in implementing the material delivered through simulation game techniques.

As for several efforts made to improve understanding of learning styles in students. In this research, the researcher uses the simulation games technique through content mastery service, this technique is used to know the extent of the students learning style understanding through simulation game which is practiced by all students. In addition to facilitate students in understanding their individual learning styles, also can know the benefits of the learning style itself.

Treatment was performed six times in the experimental group by providing content mastery services with simulation games techniques. With topics of discussion about visual learning styles, strategies to simplify visual learning, auditorial learning styles, ease strategies for auditorial learning styles, kinenstetik learning styles, and strategies to simplify kinesthetic learning styles.

According to the results of research conducted by Hartati (2015: 232) in Formation Journal Number ISSN 2088: 351X shows that the results of learning mathematics in students who have different learning styles indicate the difference of mathematics learning outcomes between groups of students who have visual learning style (B1) With groups of students who have auditorial learning styles (B2) and groups of students who have kinesthetic learning styles (B3). This difference can be seen from the difference in the average score of mathematics learning outcomes obtained by each group. The mean score of the learning outcomes of the group of students with kinesthetic learning style ($\mu B_3 = 66.80$) was higher than the mean score of students' learning achievement with visual learning style ($\mu B_1 = 65,45$) and auditorial ($\mu B_2 = 65 , 25$). This difference is also reinforced by ANAVA result showing F-count value of 2,494 with sig probability 0,047 (sig <0,05) at significance level $\alpha = 5\%$. These results reinforce the assumption that different learning styles will result in different mathematical learning outcomes.

This is supported also based on the results of research conducted by Wirahenting (2014: 12) in Journal of Action Research Class Vol 16 No. 2 that the implementation of content mastery services with simulation methods can improve student self-confidence. Initial condition, from the observation of less confident students when speaking in front of the class before being given content mastery service with the method of "simulation" there are 11 students (73%) with low category, 4 students (27%), and no students Have high confidence. In the 1st cycle, confidence boosts in front of the class after being given content mastery service with simulation method, which is confident to be 5 students (33%) and 5 students (33%) low. While in cycle II to 13 students (87%) high, 2 students (13%) are, and no students with low confidence.

Furthermore, based on the results of research conducted by Salmiati and Amiruddin in February (2017: 15) in the journal counseling Andi Matappa Vol 1 No. 1 shows that the application of simulation games as group guidance techniques to improve the ability of how to solve conflicts in students in SMP Negeri 3 Bungoro Kelurahan Bori Appaka Bungoro Subdistrict can be summarized as follows: (1) description of ability to resolve conflict of student of SMP Negeri 3 Bungoro before being given practice of simulation implementation. Based on the percentage of frequency distribution of pretest questionnaire results from 30 students studied known to 11 people (37%) in the medium category, 15 people (50%) less good category, and 4 people (13%) category is not very good while good and very good category Neither of the respondents are categorized. This shows that prior to given / practice of simulation game implementation generally in less good category. (2) description of the ability to resolve conflicts of students of SMP Negeri 1 Bungoro after being given the practice of simulation implementation. This is evidenced by the results of the analysis and t-test with the comparison of thitung (2.502)> ttable (2.045) so it can be interpreted that there has been a positive change and significant ability to improve student conflict resolution through simulation game activities as group guidance techniques.

## CONSLUSION

Based on calculation result of research of t-test formula obtained by result of Thitung equal to 2,537 then consulted with Ttabel at significant level with N = 60 that is equal to = 1,671 then Thitung> Ttable is 2,537> 1,671. On the basis of these calculations, the working hypothesis (Ha) accepted as expressed by content mastery services through simulation games techniques can improve understanding of learning styles of students of class XI SMA Negeri 1 Gubug.

Thus the working hypothesis (Ha) is received at a significant level of 5%. Hence the working hypothesis (Ha) which reads "simulation games technique through content mastery service can improve understanding of student learning style of class XI SMA Negeri 1 Gubug"

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