IMPLEMENTATION OF THE EXO OLO TASK LEARNING MODEL INTEGRATED CASE METHOD TO IMPROVE STUDENTS' HIGH ORDER THINKING SKILLS (HOTS)

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ABSTRACT: This article was written to describe the results of the Application of the EXO OLO Task Learning Model integrated Case Method to improve students' higher-order thinking skills on the distribution of flora and fauna in Indonesia and the world. The research method used is quasi-experimental. The subjects of the study were students of class XI IIS 2 of As-Shofa Islamic High School Pekanbaru as an experimental class and class XI IIS 1 as a control class. Data were collected with observation sheets and learning outcomes tests. The hypothesis is proved by a t-test. The results showed: (1) the high-level thinking skills of experimental class students are higher than the control class in terms of critical thinking skills, problem solving, and transfer of knowledge. (2) the learning outcomes of the experimental class students were higher than the control class shown by the results of the t test with a significance value (2-tailed) of 0.200 >significance value of 0.05. Thus, it can be concluded that the EXO OLO Task integrated Case Method model can improve high-level thinking skills and student learning outcomes so that it can become an alternative learning for teachers.

*Keywords:*EXO OLO Task, Case Method, Hots

1. INTRODUCTION

21st century learning is characterized by the development of higher-order thinking skills which are characterized by: 1) analysis, 2) logical reasoning, 3) critical consideration and thinking, 4) problem solving and creative thinking (Nofrion, 2018). Currently, in accordance with the 2013 curriculum and the independent curriculum, learning in schools must refer to 21st century skills, namely: Critical thinking skills and problem solving (Critical Thinking), Communication Skills, Creativity and Innovation, Collaboration. . Marzano and Heflebower (2012). further in partnership 21st century learning it is explained that geography is one of the key subjects that students must learn.

In implementing the 2013 curriculum and the independent curriculum, teachers are free to choose learning models that are appropriate to 21st century learning. One of them is the EXO OLO Task Model. The model developed by nofrion (2019) is the leading learning model for LPTKs in 2021 which focuses on developing HOTS by using questions or problems as a basis for thinking. Related to the independent curriculum and the 2013 curriculum, the EXO OLO Task model is relevant if it is strengthened in its application in geography learning with the Case Method, the integration of the two can be carried out in each model syntax.

Table. 1 Syntax Model EXO OLO Task Integrated Case Method

No	Syntax Model EXO OLO Task	Case Method learning flow
1	Concept reinforcement	Pre-Existing Materials
2	EXO Task (Examination Oriented Task)	A simple problem or case as a thought trigger
3	OLO Task (Olimpiad Oriented Task)	More challenging problems or cases (C4 - C6)
4	reflection	Review and strengthen student understanding

Source: Result of data analysis, 2022

2. RESEARCH METHODS

The research method used in this study is an experimental method with a quasi-

experimental model (quasi experiment). the goal is to predict the state that can be achieved through actual experiments, but there is no control and/or manipulation of all relevant variables. In this study, the researcher wanted to analyze the application of the EXO OLO Task with the Case Method. While the approach used in this research is descriptive.

Descriptive which aims to describe the facts that exist and describe according to the phenomenon. The research subjects were students of class XI IIS 2 As-Shofa Islamic High School Pekanbaru as the experimental class and class XI IIS 1 as the control class. The data collection tools used were observation sheets for students' high-level thinking skills and learning achievement tests. The design of this study used the Pretest Posttest Control Group Design (Arikunto, 2002) with a design like the following table: Table 2 Quasi Experiment Design Pretest-Posttest Control Group Design Pretest Treatment Posttest Group Design.

Table 2. Pretest-Posttest Control Group Design Quasi-Experimental Design

Kelompok	Pre test	Treatment	Postest
Ekperiment group	01	X	02
Control group	02		O4

Source: Result of data analysis, 2022

Information :

O1 : Measurement of the initial ability of the experimental group
O2 : Measuring the final ability of the experimental group
X : Giving treatment
O3 : Measurement of the initial ability of the control group
O4 : Measuring the final ability of the control group

Variable, according to Arifin (2012) is a variable phenomenon or a factor which, if measured, will produce varying scores. In this study, it consists of two variables, namely the independent variable and the dependent variable. The independent variable (Variable X) in this study is the influence of the EXO OLO Task learning model with the Case method. While the Dependent Variable (Variable Y) in this study is students' high-level thinking skills in geography learning. Data collection techniques used in this study were in the form of achievement tests, observation of higher-order thinking skills, field notes, documentation, and research instruments. While the data analysis technique by analyzing high-level thinking skills and analysis of student learning outcomes.

3. RESULTS AND DISCUSSION

3.1 Result

This study began with a pre test involving 46 students. The results showed that the average score was only 44 for the experimental class and 42 for the control class.

This means that not a single student has been able to reach the KKM at 75. The following table shows the results of the pre-test for the experimental class and the control class

Tabel 3. Hasil preetest kelas ekperimen dan kelas kontrol

Experiment Class			Control Class		
COMPLETENESS	AMOUNT	PERCENTAGE	KETUNTASAN	JUMLAH	PERSENTASE
COMPLETE	0	0	COMPLETE	0	0
REMEDIATE	23	100 %	REMEDIATE	23	100 %
MINIMUM VALUE		52.5	MINIMUM VALUE		50
MAXIMUM VALUE		30	MAXIMUM VALUE		32.5
AVERAGE		44	AVERAGE		42

Source: Result of data analysis, 2022

Furthermore, the researchers conducted experiments by applying the EXO OLO Task model with the Case Method 4 meetings on the geographical distribution of flora and fauna in Indonesia and the world. The following is a graph of the results of higher-order thinking skills after learning to use the EXO OLO task model with the case method in the experimental class.
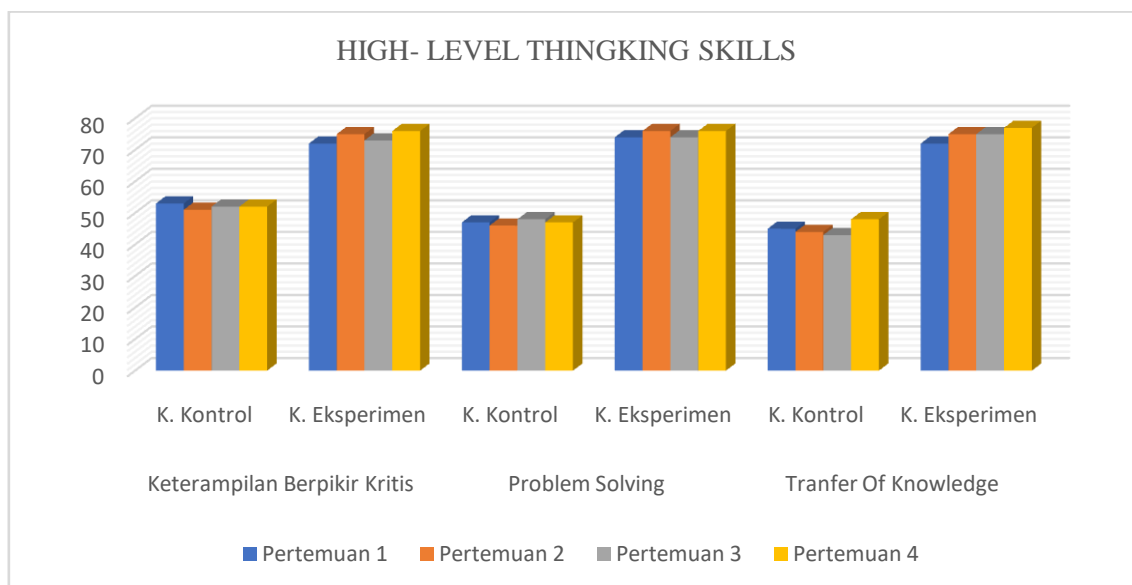

Fig 1. High-Level Thinking Skills Graph (HOTS)

Based on the Distribution Graph of Students' Higher Level Thinking Ability (Hots) obtained from the observation sheet during the application of the EXO OLO task learning model with the Case Method in the experimental class shows that indicators of critical thinking ability are seen from 4 aspects namely (able to express facts to solve problems, able to choosing opinions that are in accordance with reality, being able to give opinions from different perspectives, and being able to solve problems arising from a statement) from these four aspects the experimental class students got an average score of 74, according to the HOTS indicator table, the class's critical thinking skills the experiment is in the medium category.

Meanwhile, the critical thinking ability of the control class that did not apply the EXO OLO Task model with the Case Method with the same aspect received an average score of 52. Based on the HOTS indicator table, the control class is in the low category.Pada indikator problem solving yang diukur melalui 3 aspek yaitu (memiliki pengetahuan yang relevan dengan indikator pembelajaran, Siswa mampu menghubungkan materi pembelajaran dengan kasus, siswa mampu mengemukakan ide atau gagasan dan solusi terhadap kasus secara tepat). Kelas eksperimen mendapat nilai rata rata 75, , sesuai dengan tabel indikator HOTS maka keterampilan problem solving kelas eksperimen berada pada kategori

sedang. Sedangkan kelas kontrol dengan indikator yang sama mendapat nilai 47, berdasarkan tabel indikator HOTS maka kelas kontrol berada pada kategori rendah.

Furthermore, the Transfer of knowledge indicator is measured by three aspects, namely (Students can Formulate problems from certain events that contain conflict issues, Students can Test each action that has been formulated, Students can make decisions about which strategies can be carried out, and evaluate things that went wrong when solving a problem) based on these three aspects, the experimental class got an average score of 74.75, based on the HOTS indicator table, the experimental class was in the medium category. Meanwhile, the control class with the same indicators and aspects got an average score of 45. Based on the HOTS indicator table, the control class is in the low category.

Based on the facts described above, there are differences in the results between the HOTS students in the experimental class and the control class, where we can see that the students' high-order thinking skills using the EXO OLO Task model with the Case Method are higher than other methods. Where the experimental class got an average of 76. Based on the criteria for high-level thinking skills according to Ennis, the high-level thinking skills of students in the experimental class are in the medium category. Whereas in the control

class with the same criteria, the average result of students' high-level thinking skills was 48. Based on the high-level thinking skills criteria according to Ennis, the high-level thinking skills of students in the control class were in the low category.

Furthermore, the effect of applying the EXO OLO Task model with the Case Method is also proven in learning outcomes which are measured using 50 questions that have been tested for validity. The following are the learning outcomes of the experimental class and the control class.

Tabel 3. Hasil Nilai Postest Kelas Eksperimendan Kelas Kotrol

Kelas Eksperimen			Kelas Kontrol		
KETUNTASAN	JUMLAH	PERSENTASE	KETUNTASAN	JUMLAH	PERSENTASE
TUNTAS	18	78	TUNTAS	10	48
REMEDIAL	5	22	REMEDIAL	13	52
NILAI MINIMAL		45.5	NILAI MINIMAL		38
NILAI MAKSIMAL		98	NILAI MAKSIMAL		90.5
RATA – RATA		80.6	RATA – RATA		71

Source: Result of data analysis, 2022

Based on the results of the posttest scores for the experimental class and control class above, we can see that the experimental class scores are better than the control class. Where the experimental class got an average score of 80.6 while the control class got an average score of 71. This shows that the experimental class that uses the EXO OLO Task learning model with the Case Method has better learning outcomes.

The learning outcomes test has also passed the normality, homogeneity and reliability tests conducted with SPSS 25. Based on the normality test results table, a significant value of 0.200 is obtained for the experimental class and 0.176 for the control class. According to the rules, the value is 0.200 or 0.169 > 0.05, then the data is normally distributed. In addition, a homogeneity test was also carried out, which aims to determine whether or not the variance of the samples taken from the same population is uniform. Homogeneity test using the Levene test. From the calculation results obtained a significance value of 0.776. so it can be concluded that the sig value is 0.776 > 0.05, which means that the data distribution is homogeneous. Meanwhile, for the reliability test, a value of 0.984 was obtained with a very high coefficient which stated that the questions met the requirements to be said to be reliable. The following is a table of normality, homogeneity, and reliability test results

Tabel Uji Normalitas, dan Homogenitas, Reliabilitas

No	Indikator yang di uji	Hasil
1.	Normalitas	0, 200
2.	Homogenitas	0, 776
3.	Realiabilitas	0, 984

Source: SPSS calculation 25

To prove the hypothesis of this study, a different test was carried out using the t-test with a significance value (2-tailed) of 0.260. So that the significance value (2-tailed) is 0.260 > the significance value is 0.05. This means that there is a difference between the experimental class which is given special behavior gets higher scores than the control class which does not get special behavior. So it can be concluded that the application of the EXO OLO Task learning model with the Case Method can improve higher-level thinking skills (HOTS) in learning Geography on the distribution of flora and fauna, this learning model is proven to be able to increase the effectiveness of learning for students.

3.2 Discussion

Based on the research results, it is proven that learning using the EXO OLO Task model with the Case Method can improve high-level thinking skills (Hots) and student learning outcomes in geography subjects. Of the three high-level thinking criteria indicators studied, namely critical thinking, problem solving, and transfer of knowledge. Students in the experimental class got better grades than the control class. The learning outcomes in the experimental class were also better than the

control class. According to (Djumandiono, 2019) learning with the cased method can stimulate students to be active, creative and innovative and increase interest, motivation towards lessons and can ultimately improve the quality of learning. This opinion is directly proportional to research conducted by (Tanur, 2020) which says that the Case Method is a complete learning method, in this model students can master concepts, improve their thinking, communication and research skills. The Case Method method is able to improve student learning outcomes**.**

Meanwhile, according to (Puri S, 2020) the Case Method teaches students how discussion and participation can encourage intellectual exchange and empower students to make critical decisions. (Mauffette Leenders, 1981) notes that the use of the case method in science should encourage students to critically assess the history of science that they hear from the media, have a good attitude towards science, understand the processes and boundaries of science, and be able to ask questions more critically in open debates. The theoretical foundation of Case Method Learning is collaborationivism. Case-based learning is rooted in social constructivism (social constructivism) which holds that students construct knowledge by building reasoning from all the knowledge they already have and from all that they acquire as a result of interacting with fellow individuals (Saputra, 2019).

Meanwhile, according to (Roy Campos, 2022), the Case Method helps executives develop their problem-solving skills by exposing them to real-life situations where they have to look for similarities and differences with respect to their professional context. This study seeks to explain how the analogy generated by the Case Method supports the authentic learning of experienced executives in special executive programs (CEPs). Meanwhile, according to (Barry Levin, 1995), the case method is proven to help teachers to create collaborative learning by bringing empirical events into learning, so as to improve students' high-order thinking skills. This opinion is in line with research conducted by (Rogers, 2010) that the case method can improve the ability of prospective teachers to

analyze authentic situations critically, resulting in several theoretical interpretations.

Likewise with the EXO OLO Task model, based on research conducted (Nofrion, 2018) that students who study with the EXO OLO Task model have higher learning outcomes than students who study with other/conventional learning models. Likewise with the quality of learning activities shown by students during learning. In addition, the EXO OLO Task learning model also creates a spirit of mutual care, sharing and collaboration among students. This shows that the EXO OLO Task learning model is proven valid and effective for improving students' higher-order thinking skills.

4. CLOSING

Based on the findings and discussion of the research results, the following conclusions can be drawn. First, the application of the EXO OLO Task Learning Model integrated with the Case Method is able to improve students' high-level thinking skills (Hots) compared to other learning models and methods seen from the aspect of critical thinking skills. problem solving, and transfer of knowledge. Where students in the experimental class who apply the EXO OLO Task Learning Model integrated with the Case Method get high scores compared to the control class who use conventional learning models. These findings indicate that the EXO OLO Task learning model with the Case Method is proven valid and effective in improving students' higher-order thinking skills. Second, the learning outcomes of the experimental class using the EXO OLO Task Learning Model integrated with the Case Method were higher than the control class using other models. This is indicated by the obtained significance value (2-tailed) of 0.200 > the significance value of 0.05. The experimental class that was given special behavior scored higher than the control class that did not get special behavior.

Thus it can be concluded that the application of the EXO OLO Task model integrated with the case method is proven to be able to improve higher-order thinking skills and student learning outcomes, so that it can be an alternative learning for teachers

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