

Research article

The Effectiveness of the EXO OLO Task Learning Model in Improving High Level Thinking Skills in Class XI Social Students of SMAN 1 Papar

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Abstract: This study examines the effectiveness of the EXO OLO Task learning model in enhancing higher order thinking skills (HOTS) among 11th-grade Social Science students studying Price Index and Inflation material at SMAN 1 Papar, Kab. Kediri. Using a quasi-experimental design, Class XI-Soc 1 served as the experimental group and Class XI-Soc 2 as the control group. The result, measured using the N-Gain Score, reveals that students exposed to the EXO OLO Task model showed an average improvement in HOTS of 63,1%, categorizing the model as quite effective. In contrast, students taught using the Discovery Learning model achieved only an 8,8% increase, classifying it as ineffective. An independent sample T-test further demonstrated a statistically significant difference in HOTS between the two groups ($p = 0.000 < 0.05$), supporting the conclusion that the EXO OLO Task model significantly enhances students' thinking skills. Limitation of this study is limited to one school and a specific subject, potentially affecting the generalizability of the findings. Further research across different subjects and student populations is recommended to validate the result.

Keywords: EXO OLO Task learning model, Higher-Order Thinking Skills, 21st Century Learning

INTRODUCTION

The development of the times fast demands every aspect of life to keep going, thrive, and survive in the face of various challenges that arise along with the changes. Compulsion of this is the end grows awareness of each individual to develop ability more in his life. State that education is the foundation, main role in improvement of ability for somebody. This education is also possible to help somebody to explore abilities possessed so that can be developed towards more good.

System in the 21st century has more demands of participants to educate for their own various several key skills like skills, direction, ability to do innovation, as well as skills in life and career (Dani, 2021). Characteristics of appropriate learning in the 21st century with Minister of Education Regulation Number 103 of 2015 covers skill in using reason critically, ability in process level creativity as well as collaboration. (Sari & Handini, 2023) that in the application of education in the 21st century prioritizes skills other like skills to think level high.

Skills to think level high is one skill that must be for all participants to educate. Skills to think defined as one of the mental processes that occur in individuals when they try to understand various things that happened to them for integrated become experience new. According to (Rizqiyah et al., 2023) ability to think level high is ability to do manipulation of information as

well as various ideas for use produce information new.

Basic from think level tall is taxonomy Not yet. Thinking This based on reality that a number of type learning requires more cognitive processes tall compared to with others. Bloom's own taxonomy is basically only own One dimensions until appear taxonomy that has been revised cover dimensions cognitive and knowledge. Dimensions cognitive in question in study This consists from remember, understand, apply, analyze, evaluate and create. According to Dani & Fajriati (2022), disclose that there is four indicator main in instrument study think level tall namely the process of finding and solving problem must based on real information, retrieval decision best No always need skills collection information, skills think critical involve search information in a way accurate until capable solve problems, as well skills creative involves the process of generating ideas or idea new for solve problem.

In this global era participant educate own convenience sufficient access Spacious, fast and easy for obtain information from all over corner. However no all information from social media is circumstances actually and can accepted. No also rarely found Lots information false or known with hoax news. Therefore that, moment This participant educate more sued For own ability in acquire, select, manage and follow up various information use take advantage of it in more life dynamic, full challenging and competitive. Situation this is also increasing demand everyone for own ability think creative, logical and systematic who can developed through activity learning skills - focused economy think level high (HOTS) (Takalar & Kurniawan, 2015). Ability think level tall This must in accordance with demands existing skills in 21st century learning which includes ability think critical, communication with kind, creative, and collaborative. Skills think level tall This assessed very important for owned in life participant educate Where with ability This student can solve problem with OK, improve ability in the process of learning, improving readiness career and abilities adapt it.

Based on results observation Handayani & Syukur (2021) state that when student given question from the teacher, way think student tend. The same with various examples that have been given by the teacher. But at the moment student given little matter different with example so student will feel difficulty. Condition this is the end make educator only demand student for accept something considered important as well as memorize. That way of thinking make development student A little slow and just can finish classified questions in more levels low or LOTS.

Condition This aligned with results observation beginning researcher do when follow implementation Assistance Teach student class X at SMAN 1 Papar year where are the 2022/2023 lessons ability think level height you have classified students low. matter This proven in the results assignment question description based on assessed HOTS Still Enough Far from criteria minimum completeness has been achieved agreed at school the. Where participant educate class X at the time That Not yet can do analysis, evaluation and work in word processing when answer question based on HOTS given by AM students. Research conducted by Vinasari et al. (2022) also states that implementation HOTS own assessment Still Not yet maximum Because lack literacy, socialization and training for educators as well as lack enthusiastic student in face learning that is oriented towards *higher thinking skills*. Part big learning model used at SMAN 1 Papar Still centered to teachers (*teacher centered*) such as expository, lecture, TCL and others. This matter chosen by the educator. Because part big participant educate more interested for listen material than requested for look for material myself, and no there are few participants still learn not yet brave for disclose his opinion in front of class. However

in accordance with statement by (Puspaningtyas, 2019) which states that learning model the not enough effective for increase ability think level tall student because of that model Still teacher -centered whereas HOTS variables require a learning model that focuses on students.

One of possible solution done for increase ability think level tall participant educate is with choose the appropriate learning model and of course HOTS based. Rizqiyah et al., (2023) success in the learning process alone can seen from assignment material student through the model used by the teacher or power educator local. Model selection by power aligned educators with very teaching material required in support understanding student. Learning economy own realm its coverage more to phenomena life everyday, so expected there are more learning models interesting for interesting interest participant educate. A good and appropriate learning model is a capable model make student follow share participate in the learning process so that capable grow characteristic positive and responsible students obtained from exists giving task through discussion in learning (Astuti et al., 2017). According to Fariha (2020) EXO-OLO Task (*Examination Oriented and Olympiad Oriented Task*) learning model can increase ability think level tall student through the syntax.

This EXO OLO Task learning model has developed based activity Study as well as collaboration from results workmanship two type question namely EXO Task and OLO Task. Syntax from the learning model This consists from strengthening concept, package EXO Task questions (C1-C3), C4-C6 questions (OLO Task) as well reflection on the learning process in a way the whole thing at the end learning. Strengthening draft in the learning model this done for can know level knowledge and abilities initial possession student related material index prices and inflation. In strengthening draft This student will given assignment in a way individual for reading, searching as well as elaborate material previously with material index prices and inflation. This model assessed Enough interesting Because own technique use of keywords for stimulate student find out something related material to be taught. Step furthermore is giving assignment questions type C1-C3 respectively pair. Step furthermore with giving assignment questions type C4-C6 respectively group. During student do a number of question in accordance with the stage is only the teacher on duty For encourage and facilitate students so that dialogue and collaboration can occur between students (Nofrion et al, 2018)

According to a number of study previous learning model based task EXO and OLO types have potential in increase ability think critical student. However, still there is gap in study related its effectiveness in various ways context. Gaps between researcher This arise caused by differences characteristics students, material diverse learning as well as implementation from the learning model it on each researcher. On research This researcher interested want to take material Index Prices and Inflation Because material This involve concepts sufficient economy complex and relevant with life daily. Besides that material Index Prices and Inflation will too discuss related economic data analysis, evaluation policy economics, and usage perspective multidimensional that will be fishing participant educate For more develop method he thought.

Study this done for test effectiveness application of the EXO OLO Task learning model to ability think level tall student class XI on the eye lesson economy in context index prices and inflation at SMAN 1 Papar. Research result This expected can give contribution to development of effective learning models in increasing student HOTS.

LITERATURE REVIEW

EXO OLO Task Learning Model

(Nofrion et al., 2018) defines the EXO OLO Task learning model as a learning model that focuses on organization activity learning for participants educate in a way more effective and gradual. According to researchers on this model are also trying For develop cooperation and improvement teacher competence regarding mastery material as well as management class. The Exo Olo Task Learning Model is a model developed through the arrangement of learning activities and collaboration triggered by two types of EXO TASK and OLO TASK questions. This model has a syntax in the form of concept reinforcement, C1-C3 question packages (Exo Task), C4-C6 question packages (Olo Task) and reflection of the learning process.

Ability Higher Level Thinking

Ability think level tall or *Higher Order Thinking Skills (HOTS)* is a thinking process in a way complex in elaborate material, make conclusion, build representation, doing analysis, as well effort or build connection with involve the most basic mental activity (Yoki Ariyana et al, 2018). According to (Marzano and Kendall, 2007) the level that is classified as HOTS is at level 4 in the processing level dimension, this is because level 4 is the highest level in the cognitive system that uses all the knowledge possessed by students to complete their tasks in everyday life. In Marzano's taxonomy there are four general categories of knowledge utilization tasks that have been identified: (1) Decision Making, (2) Problem Solving, (3) Experimentation, and (4) Investigating.

METHOD

This research uses an approach quantitative with the type of quasi-experimental research or quasi-research. This research applies impure experimental design Because researchers cannot control full to research subject. The design of this research is a non-equivalent control group design research. This research involves two variables, namely the independent variable is the EXO OLO Task learning model and variables bound that is think level tall. This quasi-experimental research design involves two classes: the experimental class and the class control. The sample for this research is female students class XI- Social 1 to XI-Social 5 at SMAN 1 Papar with elections sample In this research, purposive sampling was used with criteria between experimental class and class dick own relative ability The same. Meanwhile, data collection uses instruments in the form of a HOTS-based pretest and posttest. The experimental class will given treatment of the EXO OLO Task learning model, meanwhile class control will use the learning model commonly used in the school, namely discovery learning. Hypothesis drawing in this research will be an independent sample t-test namely a statistical method used to compare the averages of two unrelated or independent samples using SPSS Version 25 for windows software was carried out and supported by the calculation of gain scores in the experimental and class classes control.

RESULTS AND DISCUSSION

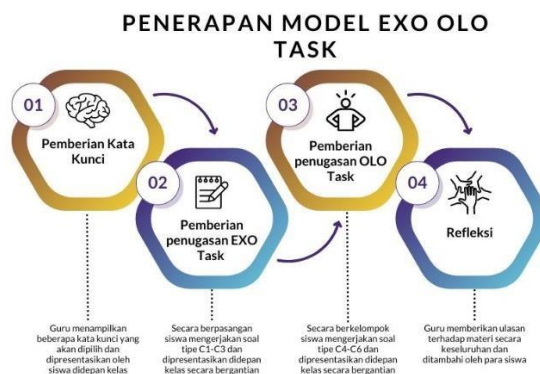
The implementation of the EXO OLO Task learning model begins with the teacher providing keywords through a power point display. Next, several students were given

opportunity to explain one of the points they master. Furthermore educator will give assignment in the form of several questions type CI-C3 (EXO Task) being carried out in a way group and will displayed in front of class in a way alternate. During There is also a presentation session session questions and answers so that students can understand more related material discussed.

Next meeting educator will give assignment to students group with members maximum 4 people per group form OLO Task tasks (C4-C6). where are the types? this matter is necessary reason, prudence and thinking high criticality to complete it. Hence the craftsmanship this matter is done in a way group with members per group are 4 students. Furthermore every group will given opportunity to make a presentation in front class in a way sort based on level difficulty question. In this presentation it was also opened session discussions and questions and answers to further sharpen your thinking power level high class XI students Social 1. Stages final from application of the EXO OLO Task learning model is reflection where the teacher will give conclusion from all over material to be discussed. Apart from that the teacher will welcome to several students to convey conclusion from material that has been discussed. More concisely learning steps during applying the EXO OLO Task learning model can be seen in the picture as follows:

Figure 1.

Syntax Implementation of the EXO OLO Task Model at SMAN 1 Papar



By overall implementation of the EXO OLO Task learning model used in this research was able show sufficient percentage tall amounting to 79% where every existing syntax in this learning model is capable went well and in accordance with the research plan. Starting from keyword giving, giving task EXO based and final giver task OLO based.

Viewed from implementation the learning syntax of this EXO OLO Task model is known that from the first meeting until lastly in Class XI-Social 1 as the experimental class went well and throughout the syntax of this learning model can be fulfilled and implemented quite well. The implementation of the EXO OLO Task learning model is in line with research conducted by (Saputra & Rahmat, 2023) which shows that this model is proven effective in mathematics learning in Class VII of SMPN Candung. The research also reveals that through this model, students are able interpret or create appropriate analytical models, evaluate correctly, and create correct conclusion from network about EXO and OLO.

Success implementation of this learning model of course influenced by several factors. Factor supporter from the implementation of learning in this research includes:

student enthusiasm follow every The stages contained in this learning model, most students feel interested in apply learning models that they have just learned about as well as exists management good class by the teacher. This is in accordance with previous research conducted by (Budiman, 2023) obtain results that use of based learning models EXO OLO assignments can encourage students to be more active involved in the learning process. This model also emphasizes giving exercise a comprehensive matter LOTS, MOTS, and HOTS levels, so that students feel challenged to be more active both physically individual, pair nor group.

Comparison of Experimental Class and Control Class Values

Approach in the experimental class uses the EXO OLO Task learning model. Meanwhile in class control using the Discovery Learning learning model to improve skills think level tall. Stages in application of the EXO OLO Task learning model of course different by stage application of the Discovery Learning learning model. This is of course happen difference between pre-test and post-test results for experimental and class classes control. Difference results can be seen in the following table:

Table 1.
Descriptive Statistics

Description	Measurement Value Ability Higher Level Thinking			
	Experimental Class (n=36)		Control Class (n=34)	
	Pre-test	Post-test	Pre-test	Post-test
Average	40.28	78.01	38.09	48.09
Average Increase	63.13%		8.8%	
Number of Samples	36	36	34	34
Standard Deviation	13,467	11,564	15,552	12,554
Maximum Value	65	100	65	75
Minimum Value	10	50	5	25

Source: Processed Data Researcher (2024)

Table 1 shows exists difference between influence application of the EXO OLO Task and Discovery Learning learning models in increase skills think level student height. If done comparison between average abilities think level students in the experimental class and class control show that experimental class students with the EXO OLO Task learning model experienced visible improvement in differences sufficient pretest and posttest scores different in a way significantly than the class posttest scores control using discovery learning. So it can be stated that through the application of the EXO OLO Task learning model in This class is superior for upgrading ability think level student's height if compared to the application of the Discovery Learning learning model.

This matter in accordance with existing research conducted by (Rizqiyah et al., 2023) Where application of learning models based giving question in a way gradually capable increase liveliness students inside class especially for present results discussion his group from a number of about that already given. Naturally matter This in a way automatic will can increase interest Study student through implementation of the EXO OLO Task model. Besides that according to research that has been conducted by Nofrion (2018) and Anwar et al (2019) stated that this EXO OLO Task learning model capable give influence to results Study student.

Effectiveness of the EXO OLO Task Deep Learning Model Increase Skills Students' Higher Level Thinking

Before testing the hypothesis, the researcher has confirmed the prerequisite tests form normality and homogeneity fulfilled. From the normality test *Shapiro-Wilk* was conducted to find out whether the data has normal distribution and is suitable for conducting a hypothesis test. Researcher obtain results that mark significance *pre-test* experimental class is $0.225 > 0.05$. As for value significance the *post-test* amounting to $0.348 > 0.05$. Then it also became known that mark significance *pre-test* class control amounting to $0.82 > 0.05$. As for value significance the *post-test* amounting to $0.189 > 0.05$.

Apart from the normality test the researcher also carried out a homogeneity test to see whether the data was deep One type or not. From the Homogeneity test *Levene* which has been carried out by researchers obtain results that the average value significance *pre-test* and *post-test* in the experimental class and class control is as big as that mark significance amounting to $0.266 > 0.05$.

Based on the results of the normality and homogeneity tests above can be stated that never mind normally distributed and homogeneous because overall has been more than 0.05. This is in accordance with the statement from (Arikunto, 1999) which states that the data can be said normal or homogeneous distribution if own sig value > 0.05 . So that the pre-requisite tests in this research have been fulfilled or H_a is accepted and can be continued to carry out hypothesis testing.

Effectiveness testing in research can be done by application a learning model in the form of giving second treatment class, that is experimental class and class control that has relative initial ability The same. Experimental and classroom classes control in this study was provided application of different learning models. The experimental class uses the EXO OLO Task learning model, meanwhile class control given treatment *discovery learning* which is often used in these schools. After being given different treatment, student learning outcomes in both class will be analyzed indicates that there is difference in improvement ability think level students' height between experimental class and class control using the *independent sample t-test* which can be seen in the following table:

Table 2.
Independent Sample T-Test Results

		Independent Samples Test						
		t-test for Equality of Means						
		t	df	Sig. (2- tailed)	Mean Differen ce	Std. Error Differen ce	95% Confidence Interval of the Difference	
						Low	Upper	
Learning outcome	Equal variances assumed	10,588	68	0,000	30,523	2,883	24,770	36,275
	Equal variances not	10,563	66,698	0,000	30,523	2,890	24,755	36,291

Independent Samples Test						
t-test for Equality of Means						
t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
					Lower	Upper
assumed						

Source: Processed Data Researcher (2024)

Based on the *independent sample t-test* data above known that sig. (2-tailed) of $0.000 < 0.05$ at level significance is 95%, so the hypothesis is selected is reject H_0 and accept H_a . With results the so it can be stated that There is difference significant between average abilities think level students' height through the results of the pre-test and post-test in the experimental class and class control. This can also be seen from the table above that there is exists improvement ability think level height of the given student treatment with the EXO OLO Task learning model improved further compared to assigned students treatment with the Discovery Learning learning model on the material Price Index and Inflation. Differences the is 24,770 to 36,275. Next hypothesis test uses the N-Gain Score where this N-Gain Score will be used to see the effectiveness of the learning model in each class in research. The N-Gain Score results in this research can be seen in the following table:

Table 3.
Gain Score Results

N-Gain Test			
Group Statistics			
N Gain (%)	Class	N	Mean
	Experiment	36	63.1387
	Control	34	8,897

Source: Processed Data Researcher (2024)

Table 4.
Categories Interpretation of the N-Gain Score Improvement Test

Score (g)	Category	score (%)	Category
Score < 0.3	Improvement enough	Not <40%	No Effective
0.3 ≤ score < 0.7	Improvement Currently	40 – 55%	Not Effective enough
Score ≤ 0.7	Height Increase	56 – 75%	Enough Effective
		>76%	Effective

Source: (Wuttiprom et al., 2017 adapted from Hake, 1998; Arikunto S. 1999)

Based on the N Gain results table above, it shows that Gain Score (%) for the experimental class with the application of the EXO OLO Task learning model was 63.1387% which included into the category Enough effective in increase skills think level high class XI students at SMAN 1 Expose to the material Price Index and Inflation.

Whereas Gain Score (%) value for class control by applying the *Discovery Learning* learning model get mark amounting to 8.897% included in ineffective category in increase skills think level high class XI students at SMAN 1 Expose to the material Price Index and Inflation. N-Gain Score calculation above show that the application of the EXO OLO Task learning model has more effective influence to improvement ability think level class XI students, especially in the material Price Index and Inflation compared to the *discovery learning model* commonly used in research schools.

There are several factors that cause the learning- based model EXO OLO's tasks are more effective used in increase skills think level tall learners. Several factors are referred to such as: factors First related to characteristics ability think level high levels that require extensive learning or training gradually starting from C1-C6. As explained by Sanjaya (2006), factors second is The enthusiasm of students who apply the EXO OLO Task learning model is higher If compared with students in classes that apply the discovery learning model. This is because students are still have a high sense of curiosity towards this learning model because it has never been taught beforehand which made them more enthusiastic.

The results of this research are in line with research conducted by (Rizqiyah et al., 2023) Where application of a learning- based model giving question in a way gradually capable increase student activity inside class especially for presenting results discussion his group from several questions that have been given. Naturally this impact automatic will be able to increase students' interest in learning through the syntax of the EXO OLO Task model. Apart from that, according to research conducted by Nofrion (2018) and Anwar et al (2019), the EXO OLO Task learning model is proven capable give influence positive to student learning outcomes. Where by implementing this model students are able have enthusiasm in look for good answer pairs in the EXO and EXO categories grouped for the OLO category. This is because previously given keywords or bridges related material discussed. This is also supported by the opinion (Susanti et all, 2019) that this learning model is sufficient influence Student learning activities become more active.

Besides seen from the *independent sample t-test* and N-Gain Score, differences effectiveness the application of this learning model can also be seen from results evaluation during the research which was identified through levels achievement of aspects of thinking level high on both research classes;

Table 4.
Levels Achievement of HOTS Aspects

HOTS aspect	Experiment	Control
Problem Taking	95%	88%
Investigation	72%	23%
Solution to problem	87%	34%
Experiment	75%	62%

The table describe that experimental class XI Soc 1 has fulfilled fourth indicator think level high with an average achievement of thinking aspects level tall amounted to 82.25%, while the average achievement of the thinking aspect level high in class control only reached 52.25%. These results show that through the application of the EXO OLO Task learning model most of the students in the experimental class were able control all aspects of ability think level tall.

Retrieval decision (*Decision Making*) is one emphasizing indicators that ability to

create decision in a way appropriate based on analysis available information. In this research it was proven that experimental class shows improvement ability taking quite a decision significant If compared to mastery indicator taking class decisions control. In accordance with research by (Brookhart, 2010) which states that active and collaborative learning methods capable increase students' abilities in taking decision in a way complex.

Indicator deep investigation ability think level This student's height refers to the student's ability in design and conduct investigations as well as solving certain problems. In the XI-Soc 1 experimental class it was shown fulfillment this indicator when the teacher gives assignment in a way grouped by type question investigation students immediately responded share task to complete task the. Support from research conducted by Hmelo - Silver (2004) shows that approach inquiry can improve skills student investigation. In the context of this research, the application of the EXO OLO Task learning model has helped students in develop skills investigation through direct experience and existing reflections in final structure of the learning model.

Problem solving is one of them focus main from application of this model. Where students are invited facing real problems and searching effective solutions through assignments studies case in a way group. In accordance with Jonassen's (2000) theory, problem -based learning is proven as sufficient method effective in increase ability student problem solving. In this research, the EXO OLO Task learning model is capable assist students in identifying problems, formulating them solutions and evaluate the solution they proposed.

Experiment become indicator final from skills think level tall. Internal students experimental class was given opportunity to design as well as carrying out experiments through assignments in a way independent nor in groups, so they can deepen their understanding is related draft scientific and improving skills think level tall. Kolodner et al. (2003) emphasize that direct experience through proven experiments effective in increase understanding students' concepts as well strengthen skills think level tall learners. This is indicative that learning model succeed increase implementation indicator skills think level student height.

CONCLUSION

The EXO OLO Task learning model is proven Enough effective to improvement skills think level high level of class XI Social students at SMAN 1 Papar, especially in the material price index and inflation on the eye lesson Economy. This can be seen through the initial and final tests obtained by students in the *independent sample t-test* of $0.000 < 0.05$. So it can be concluded that there is significant difference between ability think level high level of students in the experimental class and class control. This EXO OLO Task learning model can be said to be more effective in improvement ability think level student height. That matter proven from the gain value test with percentage the experimental class's gain score was higher than the class control that is amounting to $63,138 > 8,897$. So this EXO OLO Task learning model is included in category Enough effective. The effectiveness of the EXO OLO Task learning model is also visible from questionnaire student activity with an average percentage the experimental class was 79% categorized high and in class control of 45% in the medium category. So the EXO OLO Task model is capable make students more active during the teaching and learning process taking place.

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