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Implementation Of Arias Model Method To The Improvement Of Subject Concept Master Learning With Team Games Tournament Setting In Taman Dewasa Junior High School Yogyakarta

Implementación Del Método Modelo Arias Para La Mejora Del Concepto Método Aprendizaje Principal Con El Entorno De Equipo Juegos En Taman Dewasa Junior High School Yogyakarta

Salamah¹,
Taufik Hidayat¹,
Joko Sutopo²

¹ Faculty of Education Universitas PGRI Yogyakarta, Indonesia

² Faculty of Information Technology and Electrical Universitas Teknologi Yogyakarta, Indonesia
Correspondence author email: salamah@upy.ac.id

ABSTRACT/ This research aims to improve the mastery of concepts and critical thinking skills of science lessons by using the Assurance, Release, Interest, Assessment, Satisfaction (ARIAS) models. Using the Teams Games Tournament (TGT) arrangement with 26 students as research objects in Social Studies lessons. Data collection techniques used in this study are documentation, observation, and test techniques. The data analysis technique used is quantitative descriptive. The conclusion of this study is the application of the ARIAS learning model with the TGT setting can improve critical thinking skills in social studies in critical thinking skills of pre-research students reaching 59% in learning, then in the first cycle increased to 71% and increased in the second cycle was 83%. The mastery of concept learning in social studies has increased. The increase can be seen from the evaluation of the Higher Order of Thinking Skill (HOTS) since the pre-study of 12% to 58% in the first cycle and increased to 92% in the second cycle. Keywords: ARIAS, TGT, Critical Thinking, Concept Learning, Mastery **RESUMEN /** Esta investigación tiene como objetivo mejorar el dominio de los conceptos y las habilidades de pensamiento crítico de las lecciones de ciencias mediante el uso de los modelos de Garantía, Liberación, Interés, Evaluación, Satisfacción (ARIAS). Usando el arreglo del Torneo de Juegos de Equipos (TGT) con 26 estudiantes como objetos de investigación en lecciones de Estudios Sociales Las técnicas de recolección de datos utilizadas en este estudio son técnicas de documentación, observación y prueba. La técnica de análisis de datos utilizada es cuantitativa descriptiva. La conclusión de este estudio es que la aplicación del modelo de aprendizaje ARIAS con la configuración TGT puede mejorar las habilidades de pensamiento crítico en los estudios sociales en las habilidades de pensamiento crítico de los estudiantes de pre-investigación que alcanzan el 59% en el aprendizaje, luego en el primer ciclo aumentó al 71% y aumentado en el segundo ciclo fue del 83%. El dominio del concepto de aprendizaje en estudios sociales ha aumentado. El aumento puede verse en la evaluación de la Habilidad del Orden Superior de Pensamiento (HOTS) desde el pre-estudio del 12% al 58% en el primer ciclo y aumentó al 92% en el segundo ciclo. Palabras clave: ARIAS, TGT, pensamiento crítico, aprendizaje conceptual, dominio

1. INTRODUCTION

The objective of education is to create high-quality generations that in turn can be competitive in education realm. Nationally, education is used to develop the ability to create dignified national character and civilization and develop student's potential to be good human beings, have noble character, knowledgeable, competent, creative, and independent, and also become democratic and responsible citizens. It is a conscious and planned attempt of realizing learning process

and learning circumstance for the students to develop actively their self-potency necessary to themselves and society (Isnardiantini et al., 2018). To achieve the objective of education, a systematic, planned, and directed education system is organized through formal education such as school.

Improving the quality of education can't be separated from the basic reference made by the government so that it can be used by every level of education, the main reference is arranged in the curriculum that implemented

in every level of education. Curriculum is made to happen standardization of education in Indonesia so that the resulting competence is not much different from abroad (Setiani et al., 2019). The lessons taught in school are contextual in that it educates students to have a broad and factual mindset. Direct learning experience is extended so that students can easily remember and understand the learning materials provided.

Curriculum in Indonesia can't be separated from the national education objectives as stated in Law Number 20 of 2003 about National Education System in Article 3, The National Education functions to develop the capability, character, and civilization of the nation for enhancing its intellectual capacity, and is aimed at developing learner's potentials so that they become persons imbued with human values who are faithful and pious to one and only God; who possess morals and noble character; who are healthy, knowledgeable, competent, creative, independent; and as citizens, are democratic and responsible. The curriculum created can't be separated from the initial goal of education itself so that there is a correlation that must be built either from the center until the implementer of the policy.

Social Science Learning given in various levels of education is expected to educate students into a society that understands the rights and obligations and has social skills. Social Sciences also form students have a character to Indonesia which means is able to practice and overcome the social symptoms that begin to deviate and choose which is good and not good for students. Ideal goals of education need to be supported by various school policies and the role of teachers and also students are able to realize an interesting situation in the learning process. The role of teachers to motivate students in learning Social Sciences is also an important thing and needs to be improved remembering learning objectives Social Science is to develop social skills and to support learning outcomes (Ramdiah et al., 2019).

Implementation of Social Sciences learning in this study takes place in the first junior high school in Indonesia in various aspects of obstacles, both in terms of students and methods applied by teachers. In addition to the learning aspects of students who are in junior high schools, especially private schools are students who are academically less than

public schools, the character of students who tend to be noisier and more fun when engaged in a more interactive learning directly. Teacher education with limited background of competence causes teachers to have less time to prepare instructional media as well as the demands of fulfilling many administration, this resulted in teachers often using conventional methods. Ongoing lessons often use lecture methods so that students are less interested in learning and uncritical mindset will also begin to form, students are more interested in learning that involves students directly with field experience so that students can master the learning and actively involved considering the students in class more tends to play a lot. Class condition is quite broad but not conducive can be seen from the fan that can't rotate in various directions make the class condition becomes uncomfortable. But all that can be overcome by sharing learning innovations such as by involving students into learning activities. The destruction of the projector also becomes an obstacle in the learning and the ability of students to absorb the learning delivered by the teacher. Less than maximal Social Science learning can also be seen from the results of learning obtained by students, in the middle of the semester re-students VII class 3 only get the average result of 6.5 even though minimum value obtained by students should be 7.5. The low score obtained by the students indicates that there must be improved both in terms of model of learning and learning media in accordance with existing materials and in accordance with the characteristics of students. This is expected to provide an improvement by improving the model and media used during learning so that the ability to think critically can increase, the ability to think critically (Fatimah, 2015)

Critical thinking is a cognitive activity, associated with using the mind. Learning to think in critically analytical and evaluative means means through mental processes such as attention, categorization, selection, and judgment. The opinion explains that critical thinking is a cognitive activity, related to the use of the mind. Learning to think critically with critical analytical and evaluative way means using mental processes such as attention, categorization, selection, and assessment (Sihobing et al., 2019). Critical thinking skills, students will be able to analyze the idea or ideas towards more specific,

classify and distinguish sharply, select, identify, assess and develop towards a more perfect. In addition students are also able to develop themselves in making decisions and solve problems (Anwar et al., 2019). Someone will be able to think critically can ask appropriate questions, gather information needed, able to creatively and efficiently disseminate information to come to conclusions and decisions trustworthy and accountable (Setiani, et al., 2019).

Less than ideal conditions in Social Science lesson and less than maximal learning in Grade VII-3, Taman Dewasa Junior High School, Yogyakarta, make the foundation of thinking how important classroom action research to minimize weaknesses in learning. Increased emphasis on the aspects of thinking and also mastery of concept criteria owned by each student using the model of learning. The model used in this research is ARIAS models with the TGT setting. The ARIAS learning model has been widely proven as a model and effective learning settings in learning in class (Anwar, et al., 2019).

Strengths in the ARIAS learning model are found in its five components, namely Assurance, Release, Interest, Assessment and Satisfaction (Nengah, et al., 2018). (a) Assurance (confidence) is a condition where students have a confident attitude and have a positive attitude about themselves that has the ability to manage well. With an attitude of confidence will be able to encourage them to achieve the best in order to succeed. (b) Relevance is something has a direction goals, clear goals, benefits and will be relevant to life encourage individuals to achieve certain goals, with goals that obviously they will know what abilities they will have and what experiences will be gained; (c) Interest is an atmosphere is needed to create students enthusiastic about the problem so they want to solve the problem. Interest fosters a sense of wanting to try one thing and try to find a way to the problem; (d) Assessment is a tool for know whether what has been taught is understood by students, to monitor student progress as individuals as well as groups, to record what students have achieved, and to assist students in learning, (e) Satisfaction, enthusiasm and student's thinking ability become reinforcement for students to achieve success, success can provide pride and satisfaction for students, it is very important and necessary in learning activities.

The teams Games Tournament Model (TGT): model is a model that uses a quiz or tournament at the end of the learning represented by each group. According to Slavin Teams Games Tournament model is one of the learning models that use academic tournaments. Quizzes, as well as an individual progress scoring system where students compete as representatives of their team with other members whose previous academic performance is on a par with them. Teams Games Tournament learning steps consist of 8 steps (Tampubolon, 2013), is:

1. Educators form groups of 4-5 people,
2. Each group deepens the material together prepared for the game,
3. The game consists of designed and numbered questions to test the knowledge gained by students from the presentation of the material in class and group work,
4. Learners choose numbered cards and try to answer questions that match the number. Learners who answer correctly will get a score
5. Scores of learners are collected for weekly tournaments (usually done at the end of the week or on each unit after the teacher has made a class presentation and the group has worked on the activity sheet),
6. The first tournament, teachers divide learners into several tournament tables. Each high-achieving student is grouped on, table 1, the next three students on table 2, and so on,
7. Then the teacher announces the winning group. Each team will get a certificate or reward if the average score meets the criteria specified,
8. Team gets the nickname "Super Team" if the average score of 45 or more. Great team if the average score of 40-45, and Good Team if the average score of 30-40.

Social Science Learning which becomes Object in research by using ARIAS learning model with TGT setting can be said to be complete in cycle if in Critical Thinking student having good criteria reach 75% while for Mastery of concept use class average so that there is pre cycling action by doing tests and can be said to be complete if the average class from pre cycle until after the cycle has increased. The success rate in this study is determined from the above criteria so that if in cycle one does

not experience increase it will be done with the second cycle and so on.

1.2 RESEARCH METHODS

This research was conducted at Taman Dewasa Junior High School, Jetis, Yogyakarta Indonesia. Implementation of this research from July to October 2017 with two cycles (8 hours of lessons), where each cycle consists of two meetings and each meeting 2 hours lesson. The subject of this research is the remaining grade VII Students 3 (VII-3) in Taman Dewasa Junior High School, which amounted to 26 students. The research method used in this research is quantitative descriptive method. The research procedure includes Plan (Planing), Action (Action), Observation (Observation), and Reflection (Reflection). The process of collecting data is done by documentation, observation and test.

2.2 RESEARCH RESULT AND DISCUSSION

3.1 Pre-Research

Mastery The concept of students is one of the focus of research background by the low value of students this is because the mastery of the concept is an expertise in the field of Knowledge who have a higher level of understanding and demanded in the curriculum 2013. Indications of weak Mastery The concept of students can be seen from the results evaluation of students as follows:

Table 1: Learning Evaluation Results (Mastery Concepts) of Grade VII Students 3 (VII-3)

Taman Dewasa Junior High School Yogyakarta Year 2017/2018 Pre Research

Describe	Result
Average Student Evaluation Results	63,54
Number of completed Students	3 students
Percentage of Student's Completion	12%

Source: *Class VII-3 Teaching Evaluation Document in Social Studies Learning*

Based on the table 1, documentation evaluation of Social Science learning which representing from Mastery of Concept can be analyzed that mean of student learning result still at number 63,54 while completeness criterion minimum of Social Science equal to 75. Completeness obtained by student of class VII- 3 only 3 students or just reach achievement target of 12% (Complete evaluation data contained in appendix). This

condition is considered less than the maximum in learning Social Sciences.

Another factor to be the focus of research design is the lack of critical thinking skills of students at the time of the learning took place. Critical thinking (CT) was described to include behaviors such as seeking the truth, open mindedness, analytical propensity, systematic tendencies, inquisitiveness, and cognitive maturity. Critical thinking is a purposeful and self-regulatory judgment, which results in interpretation, analysis, evaluation, and inference as well as the explanation of the evidential, conceptual, methodological, contextual consideration upon which judgment is based (Bolhassan and Taha, 2017).

Critical thinking ability in question is the ability to support the learning process. In the learning of many students who do not listen to teachers in conveying learning, so less learning materials maximally discussion by students. Students seen many who talked with friends beside him.

Students can't be made as the subject matter that makes learning not interactive to support conceptual satisfaction and critical thinking. There are several aspects that must be understood such as the competence of teachers in teaching as well as the condition of the classroom as well as existing facilities. Models and media also become one of the factors that make students can have an understanding of the learning that takes place. Based on the results of the first stage observations provide input for collaborators and researchers to select the appropriate model in accordance with the characteristics of the learning process and students to class VII-3. The design of learning models between researchers and collaborators resulted in an agreement to use ARIAS model with TGT settings. The design of the model is given that ARIAS has stages such as Assurance, Relevance, Interest, Assessment, and Satisfaction, used to strengthen the existing learning stages to increase the mastery of concepts and student's critical thinking as well as the means to activate students and improve students' level of understanding of learning. This is a concern for the researchers considering that the absence of communicative learning to provoke student's critical thinking in social studies classes is considered a less important subject and is presented with an unattractive model.

Team game tournament (TGT) is an effective technique of cooperative learning, thus, in groups are created that cooperative function in the class room for a period of time (Ritonga, 2017). TGT (Times Games Tournament) becomes a research character, in an effort to get closer to learning with pleasant conditions. Times Games Tournament put more emphasis on the fun learning process so that the material taught will be easily entered and understood by the students. This TGT setting can't be separated from developing the

students' thinking so that students are invited to find process can be said that TGT also leads to direct learning with the advancement of competition. Learning is directed not to full mastery of the material, but how to analyze the condition of society related to learning materials.

Based on the criteria of achievement of the classroom action research with the help of collaborators observing the student activity level by using the activity instruments to generate data:

Table 2: Observation Results of Critical Thinking of Grade VII-3 Taman Dewasa Junior High School Yogyakarta year 2017/2018 on Pre Research

No	Instruments	Number of Students	Persentase
1	Concentration of students in paying attention to video	14	54%
2	Answer the questions asked by the teacher	15	58%
3	Listen to the teacher's explanation carefully	15	58%
4	Understand the material presented by the teacher	16	62%
5	Conducting question and answer to students on the material taught so that students can understand the material more deeply	14	54%
6	Deepening student knowledge in detail	14	54%
7	Giving an opinion on the problems given by the teacher	15	58%
8	Resolve problems in groups	14	54%
9	Provide responses to the social reality that teachers present in learning	16	62%
10	Giving opinion in solving existing problems in social interaction of school scope	16	62%
11	Ask the teacher for information	16	62%
12	Relating material to existing events in everyday life	15	58%
13	Solve the questions seriously	15	58%
14	Provide answers in each question with confidence	16	62%
15	The spirit in solving problems through games tournament activities	16	62%
16	Attract and deepen the conclusion at the end of the learning activity	17	65%
Percentage Level of Achievement			59%

Source: Preliminary observations of collaborators

Based on table 2, data can be analyzed that from 16 points about Critical Thinking there are no students who have value up to 75% this gives the reason that class VII-3 requires a

method and model to improve students critical thinking skills. Based on table 3 observational instrument data on Critical Thinking can be tabulated the level of Critical Thinking students based on the following criteria:

Table 3: Critical Thinking Criteria of Grade VII-3 Taman Dewasa Junior High School, Yogyakarta year 2016/2017 on Pre Research

NO	Category	Pre Research	
		Number students	Persentase
1	Less	16	61%
2	Enough	7	27%
3	Good	2	8%
4	Very Good	1	4%

Source: Results of tabulation of research instruments for Critical Thinking research

Tabulation of data obtained from the observation of collaborators in the study obtained data that students who are not lacking in critical thinking skills as many as 16 students (61%), category There are enough 7 students (27%), Good criteria 2 students (8%), and very good amounted to 1 student (4%). Based on table 3, these data it can be seen that there are 3 students (12%) who have been on good and very good criteria. This condition is not sufficient in achieving the standardization of critical thinking ability by 75%.

3.2 Cycle I

Table 4: Results Mastery of Class VII Concept of Students 3 Taman Dewasa Junior High School Yogyakarta Year 2017/2018 On Cycle I

Description	Hasil
Average Student Evaluation Results	74,77
Number of completed Students	15
Percentage of Student's Completion	58%

Source: Documentation of Class VII Teaching Evaluation 3 in Social Science Learning

Based on table 4, the results of mastering the concept of learning in the first cycle obtained the results of the average evaluation of students 74.77. The minimum criteria for learning Social Science is 75. The number of students who have completed (or more than 75) as many as 15 students or 58% of the classroom whole.

Based on the results of observations of collaborators in cycle I in table 4, it can be observed that the average level of student activity achievement that has reached the target percentage of more or equal to 75% is (1) provide answers in each question with confidence; and (2) to draw and deepen the conclusion at the end of the activity.

Less than optimal conditions are found in the instrument (1) the concentration of students in watching the video; (2) answer questions asked by the teacher; (3) listen carefully to the teacher's explanation; (4) understand the material presented by the teacher; (5) Conduct question and answer on the material taught at the time of learning; (6) conduct discovery activities with peers; (7) give an opinion on the problems given by the teacher; (8) resolve problems within the group; (9) provides a response to the social reality that teachers present in learning; (10) provides an opinion in solving existing problems in social interactions of the scope of the school; (11) requested information to the teacher; (12) linking matter with everyday life; (13) seriously delineate the matter; (14) The spirit in solving problems through games tournament activities.

The lack of maximum criteria of the instrument is because the percentage of students is less than 75%. The percentage value of 75% became a standardization agreement between researchers and collaborators for the perfection of research.

The Results of Student's Critical Thinking Ability Assessment Cycle I from Grade VII-3 Taman Dewasa Junior High School, Jetis, Yogyakarta 2017/ 2018

No.	Instrument	Number of Students	Percentage
1.	The ability to concentrate on study through video based learning.	17	65%
2.	The ability to answer teacher's question.	18	69%
3.	The ability to pay attention to the teacher's explanations.	19	73%
4.	The ability to understand the material presented by the teacher.	19	73%
5.	The ability to discuss about materials.	17	65%
6.	The ability to find discoveries together with friends.	18	69%
7.	The ability to finding solutions to problems presented by the teacher.	17	65%
8.	The ability to overcome problems associated with team works.	18	69%
9.	The ability to give opinions about the social reality presented by the teacher during the lesson.	19	73%
10.	The problem solving ability related to their social interaction in school.	18	69%
11.	The ability to asking about informations from the teacher.	19	73%
12.	The ability to actualize lessons materials in their daily life.	19	73%
13.	The ability to answer questions correctly.	18	69%
14.	The ability to answer questions with confidence.	20	77%
15.	The ability to solve problems through teams games tournament.	19	73%
16.	The ability to draw conclusions at the end the learning activity.	21	81%
Percentage of Achievement Levels			71%

Source: Data Critical Thinking Ability Assessment Cycle I

The results of these observational instruments can be used to classify students in the criteria of Critical Thinking, as shown in table 5 and table 6. Categorization of these criteria based

on the percentage of observations by using research instruments. Categorization of these criteria can be seen in the following table 6.

Table 6: Student's Critical Thinking Ability Criteria Cycle I from Grade VII-3 Taman Dewasa Junior High School, Jetis, Yogyakarta 2017/ 2018

No.	Criteria	Number of Students	Percentage
1.	Less	6	23%
2.	Enough	11	42%
3.	Good	6	23%
4.	Very Good	3	12%

Source: Data Critical Thinking Ability Assessment Cycle I

Based on the student’s critical thinking assessment results, there is a positive change in critical thinking using the ARIAS learning model with the TGT setting. TGT learning was more effective to promote student's critical thinking (Bolhassan and Taha, 2017). This result can be proven from research that there are only 6 students (23%) who are lacking, 11 students (42%) are quite good, 6 students (23%) are good and finally there are 3 students (12%) who are very capable of critical thinking, as shown in table 6.

Assessment data that has been categorized in the criteria of critical thinking shows that there are apparently some students who are intelligent, some of them are 6 students who think critically and 3 students who are very

critical thinking, so it can be said that there are 9 students who meet the criteria of critical thinking or 35%. This result is used as a standard of student’s ability, which can also be used in improving student’s critical thinking skills in the future.

3. Cycle II

The evaluation process in this research cannot be separated from the mastery of concepts, so that in every solution the problem must be known. The process of mastery evaluation of concepts given to students starts from social interaction and all activities in the school. From the results of research that refers to the mastery of concepts obtained the following results, as shown in table 7 :

Table 7: The Results of Concept Mastery Assessment Cycle II from Grade VII-3 Taman Dewasa Junior High School, Yogyakarta 2016/ 2017

No.	Description	Results
1.	Average Student Evaluation Results	84,15
2.	Number of Students	24 Students
3.	Percentage of Student’s Completion	92%

Source: Data Teaching Evaluation Assessment of Grade VII-3

Based on table 7 the results of the evaluation of learning in the second cycle shows that students from Grade VII-3 are able to master the concepts of social studies with an average value of 84.15. Meanwhile, the minimum value of mastery of the concept of social studies is 75. The number of students who have finished (or who have a value of more than 75) is 24 students or 92% of students of class VII-3 who complete social studies in Taman Dewasa Junior High School, Jetis, Yogyakarta. This is in accordance with Rahim and Atuna (2018) that Teams Games

Tournament (TGT) model does influence student’s learning outcomes.

In the implementation of the second cycle focused on observing the learning process. Cooperative learning can increase student’s interest and thinking power (Lestari, et.al, 2019). The instrument used by collaborators is the same instrument as the research first cycle. The same instrument is a comparative basis for changes in observations. Based on observations from collaborators (observations are listed in table 8), the following data are obtained as follows as shown in table 8 :

Table 8: The Results of Student’s Critical Thinking Ability Assessment Cycle II from Grade VII-3 Taman Dewasa Junior High School, Yogyakarta 2017/ 2018

No.	Instrument	Number of Students	Percentage
1.	The ability to concentrate on study through video based learning.	22	85%
2.	The ability to answer teacher’s question.	22	85%

3.	The ability to pay attention to the teacher's explanations.	22	85%
4.	The ability to understand the material presented by the teacher.	21	81%
5.	The ability to discuss about materials.	20	77%
6.	The ability to find discoveries together with friends.	22	85%
7.	The ability to finding solutions to problems presented by the teacher.	21	81%
8.	The ability to overcome problems associated with team works.	21	81%
9.	The ability to give opinions about the social reality presented by the teacher during the lesson.	21	81%
10.	The problem solving ability related to their social interaction in school.	22	85%
11.	The ability to asking about informations from the teacher.	22	85%
12.	The ability to actualize lessons materials in their daily life.	22	85%
13.	The ability to answer questions correctly.	22	85%
14.	The ability to answer questions with confidence.	21	81%
15.	The ability to solve problems through teams games tournament.	22	85%
16.	The ability to draw conclusions at the end the learning activity.	23	88%
Percentage of Achievement Levels			83%

Source: Data Critical Thinking Ability Assessment Cycle I

Collaborator observation on student's critical thinking skills can be further elaborated through the results of research in the second cycle, the average level of achievement of student's critical thinking abilities is 83%. The results of the study of the ability of students

who have reached the target or more than or equal to 75% can be seen from 16 assessment instruments that can be classified into the following criteria:

Table 9: Student's Critical Thinking Ability Criteria Cycle II from Grade VII-3 Taman Dewasa Junior High School, Yogyakarta 2017/ 2018

No.	Criteria	Number of Students	Percentage
1.	Less	0	0
2.	Enough	6	23%
3.	Good	8	31%
4.	Very Good	12	46%

Source: Data Critical Thinking Ability Assessment Cycle II

Based on table 9 students who can be categorized as critical thinking students are obtained from the initial observations of students who are rarely absent from class. There were 6 students (23%) at a sufficient

level, 8 students (31%) at a good level and 12 students (46%) at a very good attendance level. The best students in the classification are 8 students and 12 students, so the total is

20 students or 77% of the total students in the class.

Discussion

Based on the results of classroom action research using the ARIAS model with TGT setting, the ability to master the concepts of student learning has increased. TGT also is able to make the material easy to understand

and makes students focused more on the lesson being taught (Permatasari, et.al, 2018). To further clarify the increase in mastery of the concept of learning, it will be presented the results of mastery of the concept of pre-research, first cycle, and second cycle as follows, as shown in table 10

Table 10: The Results of Concept Mastery Assessment Cycle II from Grade VII-3 Taman Dewasa Junior High School, Yogyakarta 2017/ 2018

No.	Description	Results		
		Pre-Research	Cycle I	Cycle II
1.	Average Student Evaluation Results	63,54	74,77	84,15
2.	Number of Students	3 Students	15 Students	24 Students
3.	Percentage of Student's Completion	12%	58%	92%

Source: Data Teaching Evaluation Assessment of Grade VII-3

The implementation of the ARIAS based TGT model can improve the learning outcomes of Grade VII-3 students at Taman Dewasa Junior High School. Applying the Team Game Tournament (TGT) model can improve student learning outcomes (Tarusu, 2019). Improved learning outcomes can be seen from the pre-research evaluation, research cycle I and cycle II. Learning outcomes in the pre-study period amounted to 63.54, after the first cycle learning outcomes increased to 74.77 and in the second cycle continued to increase to 84.15. The implementaion of Teams Games Tournament learning strategy (TGT) produces higher learning outcomes compared with conventional one (Ritonga, 2017).

Students who have exceeded the minimum criteria also increased by 3 students (12%) in the pre-study period, then increased to 15 students (58%) in the first cycle, and increased again to 24 students (92%) in the second cycle. Meanwhile, the number of students who are able to think critically also increases in each cycle, as well as an increase in the concept of mastery of social studies learning that occurs because there is always a reflection of each cycle between the collabulator and the teacher. Increased critical thinking skills in general can be seen in the results of classroom action research pre-research, first cycle and second cycle as follows, as shown in table 11:

Table 11: Student's Critical Thinking Assessment Result from Grade VII-3 Taman Dewasa Junior High School, Yogyakarta 2017/ 2018

No.	Category	Pre-Research		Cycle I		Cycle II	
		Number of Student	Percentage	Number of Student	Percentage	Number of Student	Percentage
1.	Less	16	61%	6	23%	0	0%
2.	Enough	7	27%	11	42%	6	23%
3.	Good	2	8%	6	23%	8	31%
4.	Very Good	1	4%	3	12%	12	46%

Source: Data Critical Thinking Ability Assessment of Grade VII-3

In general the good and very good categories in the table above tend to increase. In the pre-study period, students included in the good category were only 2 students (8%), then increased to 6 students (23%) in the first cycle

and continued to increase to 8 students (31%) in the second cycle. The number of students in the excellent category also increased, from initially only 1 student (4%), to 3 students (12%) in the first cycle and continued to

increase again to 12 students (46%) in the second cycle.

Based on these results, it is known that there has been an increase in student's ability to think critically, which is a combination from good and very good categories. In the pre-study period there were only 3 students (12%) who were good at learning, then increased to 9 students (35%) in the first cycle, and increased again to 20 students (77%) in the second cycle. This increase is supported by the availability of adequate equipment and teachers who are competent in teaching and mastering classes.

4. CONCLUSION

Based on the results of research and discussion on the implementation of the Assurance, Relevance, Interest, Assessment and Satisfaction (ARIAS) models with the Teams Games Tournaments (TGT) setting in the learning of social science in class VII-3 students at Taman Dewasa Junior High School in Yogyakarta, it can be concluded that the application of the ARIAS model through the TGT setting has an impact positive on the ability to think critically and the mastery of the concept of learning by students.

By conducting classroom action research conducted in 3 stages, namely pre-research, cycle I and then cycle II, critical thinking skills and learning outcomes of social studies subjects students consistently experience improvement at each stage of research. Learning by using the ARIAS model with the TGT setting is an effective learning model by involving students directly in the learning process. The application of the ARIAS model with the TGT setting in class action provides encouragement to students to be able to develop self-confidence, interest in learning and critical thinking skills of students. The application of communicative games between teachers and students has a significant positive impact on the attendance of students in following lessons, so that student learning outcomes are better than before.

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