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Implementation of the Cooperative Learning Model Type Problem Posing in Subjects Islamic Religious Education Lessons and Morals Towards Learning Independence And Critical Thinking Skills of Students of Senior High School 4 Kerinci

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Abstract: This study is motivated by the low levels of critical thinking and self-directed learning among the eleventh-grade students of Senior High School 4 Kerinci. In the process of learning Islamic Education (PAI) and Counseling Guidance (BP), students tend to be passive, with a lack of self-directed learning and insufficient critical thinking. Moreover, the problems discussed during lessons often relate to everyday life issues. The purpose of this research is to determine the improvement in self-directed learning and critical thinking skills among the students of Senior High School 4 Kerinci. The research employs a quasi-experimental design. The study variables include one independent variable: the Cooperative Learning Model with Problem Posing Type, and two dependent variables: self-directed learning and critical thinking. Data were collected using questionnaires and test questions. The population for this study consists of the eleventh-grade students of Senior High School 4 Kerinci enrolled in the 2023/2024 academic year. Sampling was conducted using random sampling techniques, resulting in Class XI Natural Science 3 as the experimental group and Class XI Natural Science 4 as the control group. Hypothesis testing was carried out to determine the significant effects of the applied strategy. The hypothesis test results for self-directed learning showed an average score of 88.3 for the experimental group and 77.1 for the control group. With a t-value of 5.15 and a t-table value of 1.708, it can be concluded that self-directed learning with the Cooperative Learning Model with Problem Posing Type is more effective than conventional teaching methods. The hypothesis test results for critical thinking skills showed an average score of 89.4 for the experimental group and 68.6 for the control group. With a t-value of 3.216 and a t-table value of 1.708, it can be concluded that

critical thinking skills with the Cooperative Learning Model with Problem Posing Type are superior to those achieved through conventional teaching methods.
Keywords: Problem Posing, Self-Directed Learning, Critical Thinking Skills, Islamic Education, Counseling Guidance.

Abstrak: Penelitian ini dilatarbelakangi oleh rendahnya kemampuan berpikir kritis dan kemandirian belajar belajar peserta didik kelas XI Senior High School 4 Kerinci. Dalam proses pembelajaran PAI dan BP masih cenderung pasif, kurangnya kemandirian belajar peserta didik, peserta didik kurang kritis dalam proses pembelajaran, sementara masalah yang dikemukakan pada saat pembelajaran dimulai adalah masalah yang sering ditemui dalam kehidupan sehari-hari.Tujuan penelitian ini adalah untuk mengetahui peningkatan kemandirian belajar dan kemampuan berpikir kritis Peserta Didik Senior High School 4 Kerinci. Jenis penelitian yang dilakukan adalah quasi *exsperiment.* Variabel penelitian terdiri dari satu variabel bebas yaitu; Model pembelajaran *Cooperative Learning Type Problem Posing* dan dua variabel terikat yaitu, Kemandirian Belajar dan berpikir krtis yang digunakan adalah angket dan soal tes. Populasi dalam penelitian ini adalah peserta didik kelas XI IPA SMA Negeri 4 Kerinci yang terdaftar tahun ajaran 2023/2024. Pengambilan sampel menggunakan teknik *random sampling* yang diperoleh kelas XI IPA SMA Negeri 3 sebagai kelas eksperimen dan Kelas X IPA SMA Negeri 4 sebagai kelas kontrol.Uji hipotesis dilakukan untuk mengetahui efek yang signifikan dari strategi yang diterapkan. Dari hasil uji hipotesis kemandirian belajar peserta didik diperoleh nilai rata-rata 88,3 di kelas eksperimen dan kelas control 77,1. Uji hipotesis t_{hitung} 5,15 dan t_{tabel} 1,708, maka dapat disimpulkan bahwa kemandirian belajar dengan menggunakan model pembelajaran *Cooverative Learning Type Problem Posing* lebih baik darNatural Scienceda pembelajaran dengan model konvensional. Hasil uji hipotesis berpikir kritis peserta didik pada peserta didik diperoleh nilai rata-rata 89,4 di kelas eksperimen dan kelas control 68,6. Uji hipotesis t_{hitung} 3,216 dan t_{tabel} 1,708 dapat disimpulkan bahwa berpikir kritis peserta didik dengan menggunakan model pembelajaran Cooverative Learning Type Problem Posing lebih baik darNatural Scienceda pembelajaran dengan model konvensional.
Kata kunci: Problem Posing, Kemandirian Belajar, Kemampuan Berpikir Kritis, Pendidikan Agama Islam Dan BP.

Introduction

Learning is defined as the result of searching, cognition, and metacognition which influence understanding. This is what happens when someone is studying, and this condition also often occurs in everyday life, because learning is a natural process

for everyone[1]. According to Syaiful Sagala, learning is teaching students to use educational principles and learning theories which are the main determinants of educational success. Learning is a two-way communication process. Teaching is carried out by the teacher as an educator, while learning is carried out by the students[2]. Then Mulkan argued that learning is an activity to create student creativity. From this opinion, it is understood that learning is a series of activities that are carried out with the aim that people (educators, students) can carry out learning activities.[3].

The learning process has a very important role to study in order to improve student learning outcomes, because this activity is a process that must be truly mastered by an educator in the learning process which includes models, strategies, media and other learning tools that are closely related to learning. daily tasks as a profession which includes educating, teaching and training. Educating means continuing and building science and technology. Training means developing skills in students[4].

Regarding learning and how to convey it according to Islamic concepts, it is found in the Al-Quran, Surah An-Nahl verse 125.

ٱدۡعُ إِلَىٰ سَبِيلِ رَبِّكَ بِٱلۡحِكۡمَةِ وَٱلۡمَوۡعِظَةِ ٱلۡحَسَنَةِۖ وَجَٰدِلۡهُم بِٱلَّتِي هِيَ أَحۡسَنُۚ إِنَّ رَبَّكَ هُوَ أَعۡلَمُ بِمَن ضَلَّ عَن سَبِيلِهِۦ وَهُوَ أَعۡلَمُ بِٱلۡمُهۡتَدِينَ

Artinya : *"Command (humans) to the path of your Lord with wisdom and good lessons and refute them in a good way. Indeed, it is your Lord who knows better those who stray from His path and He knows better those who are guided." (Q.S. An-Nahl/ 16 : 125).*

According to Wahbah Azzuhaili in Tafsir Al-Munir, the verse above explains, O Muhammad, call humanity to the religion of Allah SWT. With strong and firm words, namely strong arguments that clarify the truth and eliminate doubts. Useful advice, lessons and ibrah and gentle words.

[1] Miftahul Huda, *Model-Model Pembelajaran Dan Pengajaran,* (Yogyakarta: Pustaka Belajar, 2017).
[2] Syaiful Sagala, *No Title Konsep Dan Makna Pembelajaran* (Bandung: Alfabexta, 2005).
[3] Nazarudin Rahman, *No Title Manajemen Pembelajaran (Implementasi Konsep, Karakteristik Dan Metodelogi Pendidikan Agama Islam Di Sekolah Umum* (Yogyakarta: Pustaka Felicha, 2013).
[4] Putu Ekayani, "Pentingnya Penggunaan Media Pembelajaran Untuk Meningkatkan Prestasi Belajar Siswa" 2, No.1 (2017): 10–11.

Albaidhawi said in Wahbah Azzuhaili, the first method, namely wisdom, is a method of preaching that is used for special people who are looking for the truth. Meanwhile, the second, namely mauizhah hasanah, is a method of da'wah used by ordinary people. Then debate those who are opposed in the best way and form of debate, such as in a gentle way, with polite words, preferring the easiest and most communicative form of rebuttal, the most appropriate and strong arguments and the most valid premises. popular and familiar to the ears. Such methods are more effective in reducing their turmoil and reducing their commotion.

In fact, your obligation, Muhammad, is only to convey and invite. The emergence of guidance and error, as well as providing recompense for guidance and error, is not within your power and authority, but Allah SWT knows who is going astray and who is being guided. He will reward them [5].

Based on the description above, it is understood that Allah SWT called on the Prophet Muhammad SAW to order humans to preach to spread Allah's religion through wisdom, namely the Al-Qur'an. The meaning is with smooth speech, which has been commanded in the Al-Qur'an. Then, by good teaching, what is meant is the lessons or advice contained in the Qur'an to reach the hearts of the targets of the da'wah. And the last thing is to argue in a good way if the target of the da'wah is not satisfied with our arguments with the verses of Allah or the propositions of the Koran to silence the arguments of the target of the da'wah.

The connection of this verse with learning is that learning in schools is a form of da'wah, where the main task of the preacher is to invite the right and prevent the wrong by using gentle, polite words, preferring the easiest form of rebuttal, and communicative, the most appropriate and strong propositions as well as the premises that are most popular and familiar to the ear, as well as learning, the main task of the teacher (educator) is to teach, educate, direct, train and initiate, to do this you must good models and methods that can arouse the hearts of the students being taught so that whatever they learn they can understand easily.

Educators should be able to choose and use learning models that can make students as learning subjects or make learning centered on the students themselves.

[5] Wahbah Azzuhaili, *Tafsir Al-Munir*, *Jilid 7* (Depok : Gema Insani Press, n.d.).

However, in reality there are still many educators who have not used it so what happens is a lack of independence and critical thinking of students in following the learning process because learning is too teacher-centered, it will be difficult to lead students towards achieving learning goals. Conditions like this generally occur in most conventional learning.

Increasing students' learning independence is very necessary considering whether or not a learning process is independent will have an impact on the success of a learning. Learning that is packaged well through various interesting models by educators will also have an impact on increasing students' learning independence, because at this time student learning independence is very necessary so that students are trained to face all problems independently.

Independent learning is a way of learning that gives greater freedom, responsibility and authority to students and plans, implements and evaluates their learning activities[6]. This is in line with the opinion of Brookfield which states that learning independence is self-awareness, self-driven, the ability to learn to achieve goals. Independence in learning will be realized if students/students actively control everything they do, evaluate and then plan the learning that they are going through and students/students are also active in the learning process[7].

Based on the opinion above, increasing students' learning independence is very necessary. Bearing in mind that students who are independent in the learning process will be trained and accustomed to conditioning themselves and their environment and will be able to solve a problem well so that they can form good character in each individual student. Meanwhile, based on the observations made by the author and described above, this is an indicator Since independence in learning is not yet fully visible, the process of learning Islamic religious education and character in class XI Senior High School 4 Kerinci can be said to be less independent in learning.

Apart from students' learning independence, students' critical thinking abilities must be improved so that learning is more effective and efficient and obtains satisfactory learning results. Mike Tumanggor defines critical thinking as wise and

[6] Nurhayati, *Psikologi Pendidikan Inovatif.* (Yogyakarta : Pustaka Pelajar, 2011).
[7] Ni Made. Budiarini, Sulastri dan Setuti, "Penerapan Layanan Informasi Belajar Untuk Meningkatkan Kemandirian Belajar Siswa Kelas VII SMP Negeri Sukasada Tahun Ajaran 2010/2011.)," 2011, 21.

reasonable decision making related to determining what a person should do in respond to scenarios that demonstrate elements of clarity, conclusions and fundamental interactions[8]. Thus, critical thinking skills involve an analysis process by considering various things to produce a rational decision or conclusion.

Facione's thoughts mention several indicators of critical thinking, namely: interpretation, analysis, evaluation and inference as well as presentation using evidence[9]. Based on these indicators, through analyzing and evaluating thinking activities as in Bloom's taxonomy concept, these activities are also included in the High Order Thinking Skills ability category. The skills in High Order Thinking Skills include critical thinking skills, creative thinking, problem solving and decision making. This description shows that critical thinking is part of high-level thinking and conversely, high-level thinking is also part of critical thinking. Someone who applies critical thinking activities indicates he is thinking at a high level and someone who applies high level thinking means he has carried out a critical thinking process[10].

Based on the opinion above, increasing critical thinking skills is very necessary for students. Considering that students who are independent and think critically in learning will train themselves and the environment and be able to solve problems well so as to form good character for individual students. However, the observations made by the author and the explanation above which are indicators of students' activeness and critical thinking abilities are not yet fully visible, so the process of learning Islamic religious education and character in class XI Senior High School 4 Kerinci can be said to lack independence and students' thinking abilities too. relatively low.

So the level of students' critical thinking abilities can be increased through supportive learning models. Learning that is packaged well through various interesting models by educators will also have an impact on increasing student activity and learning outcomes, because at this time student activity and learning outcomes are very necessary so that students are trained to face all problems effectively and efficiently. So

[8] Mike Tumanggor, *Berfikir Kritis, (Cara Jitu Menghadapi Tantangan Pembelajaran 21)* (Ponorogo: Gracias Logis Kreatif, 2021).
[9] (Lilis Nuryanti, 2018)
[10] Susriyati Mahanal, "Asesmen Keterampilan Berpikir Tingkat Tinggi," *Jurnal Penelitian Dan Pengkajian Ilmu Pendidikan* 03 (2018): 52.

in this research the author wants to test one of the learning models, namely, the Cooperative Learning Type Problem Posing learning model.

Cooperative Learning is a form of group learning that has recently received attention and is recommended for use. Several research results prove that the use of cooperative learning can improve students' learning process thereby increasing social relationship abilities, fostering an attitude of accepting one's own and other people's shortcomings and can increase self-esteem, learn to think, solve problems, and integrate knowledge with skills.

The Problem Posing learning model is a learning model that requires students to compose their own questions or break down one problem into simpler questions and requires students' mental and physical activity[11]. According to Syaifuddin Nurdin, "Learning using the problem posing assignment model essentially asks students to ask questions or problems. The problems raised can be based on broad topics, problems that have already been worked on, or specific information provided by educators." It is hoped that learning using the Problem Posing model can increase students' independence, cooperation and high-level learning abilities so that active learning will be created, students will not feel bored and will be more responsive. This will have an influence on the learning outcomes obtained[12].

In order to make Islamic Religious Education learning more enjoyable and attractive to students, new innovations must be made in Islamic Religious Education learning, namely by utilizing learning models because there are still many students who lack independence and have low critical thinking skills in particNatural Scienceting in learning activities, which has an impact on results. learning and self-actualization"[13]. Therefore, the learning model is created so that students are more active, independent and enthusiastic about particNatural Scienceting in learning and can build students' knowledge. Islamic religious education and character, however, the use and selection of models must also be in accordance with the material to be taught, so that learning can be maximized and improve student learning outcomes.

[11] Siti Ayu and Ridhofatul Husna, "Pengaruh Model Pembelajaran Problem Posing Terhadap Kemampuan Berpikir Kritis Siswa Kelas XI OTKP Di SMK Negeri 2 Tuban" 2, no. 1 (2022): 40–50.
[12] Aris Shoimin, *Model Pembelajaran Inovatif Dalam Kurikulum 2013,* (Yogyakarta: Ar-Ruzz Media, 2014).
[13] Dirjen Bimbingan Departemen Agama, "Kegiatan Pembelajaran Aqidah," 2003, 3.

Based on interviews with Islamic Religious Education subject teachers in August 2023 in class So learning becomes less meaningful and students do not get direct experience in learning. Some students are less interested and less motivated in particNatural Scienceting in learning. When the teacher delivers material, many students tell stories and play by themselves with their classmates or seem to pay attention but do not understand what the teacher means. And cooperation between students still needs to be improved. Many students are unable to work together well with fellow students, so that students' independent learning and even higher level thinking becomes less effective. This can be seen that the score is still below the KKM, where the minimum KKM score is 79, while many students' scores are still below the specified KKM. This can be seen by students answering questions on the PAI material, namely on the Zakat material in Table 1.

Table 1.

Average Score for Class XI Senior High School 4 Kerinci on Zakat Material

No	Class	Test Scores
		Average Score for Class XI SMAN 4 Kerinci on Zakat Material
1	XI Natural Science 1	61.4
2	XI Natural Science 2	60.1
3	XI Natural Science 3	60.9
4	XI Natural Science 4	60.6
5	XI Social Science 1	57.5
6	XI Social Science 2	56.8
7	XI Social Science 3	58.8
8	XI Social Science 4	58.9

Source: Religion teacher at SMAN 4 Kerinci

Furthermore, interviews conducted with Islamic Religious Education teachers at Senior High School 4 Kerinci said that class zakat. Apart from that, teachers have limitations in using technology-based learning media in presenting lesson material. Therefore, the Cooperative Type Problem Posing learning model is a solution to make it

easier for teachers and students to convey material, and students are able to easily understand the lesson material presented by the teacher..

Then related to this, Agus Suprijono believes that "it is necessary to strive for a form of learning that is capable of activating students and presenting material on Islamic Religious Education and Character that is more interesting. Efforts to produce independent learning and critical thinking cannot be separated from various factors that influence students so that they can improve their learning outcomes. In order to increase the achievement of student learning outcomes for the better, one thing teachers must do is create a learning atmosphere that is creative and enjoyable, but still refers to the learning objectives[14].

Thus, the Cooperative Learning Type Problem Posing learning model is really needed by teachers so that students can receive information or messages well, because through this learning model teachers can help students get information, ideas, skills, ways of thinking and expressing ideas. The learning model also functions as a guide for learning designers and teachers in designing teaching and learning activities[15]. Based on the description above, a teacher's action is needed to find a solution and implement a learning model that can increase students' learning independence and critical thinking abilities in learning Islamic religious education and students' character. Therefore, experimental quantitative research will be carried out entitled "Application of the Cooperative Learning Type Problem Posing Learning Model in the Subjects of Islamic Religious Education and Character on the Critical Thinking Ability of Class XI Students of Senior High School 4 Kerinci".

Research Methods

In accordance with the problem studied and the research objectives stated, this type of research is quasi-experimental research (Quasi Experimental). The Quasy Experiment type of research was chosen because this research aims to apply an action in the form of a model with human subjects to increase the efficiency and effectiveness

[14] Agus Suprijono, *Cooperative Learning, Teori Dan Aplikasi PAIKEM* (jakarta: Yogyakarta: Pustaka Pelajar, 2009).
[15] Agus Suprijono.

of an activity so that the results are more optimal. Meanwhile, the research design used was Randomized Control Group Only Design (Lufri & Ardi, 2018). This design determines the effect of treatment by simply comparing the post-test average between the experimental group and the control group. This research was carried out in class XI of Senior High School 4 Kerinci, studying Islamic religious education and character. The research was carried out in the even semester of the 2023/2024 academic year.

Islamic education

Education is an effort by adults to work together with children in order to mature their physical and spiritual development. According to Ki Hajar Delwantara quoted by Abdin Nata, education is an effort carried out with a complete conscience, expressing safety and welfare[16].

From the above understanding, we can conclude that education is a conscious effort to develop humans both physically and spiritually through education and training.[17] Islamic religious education is an effort to develop knowledge systematically so that students can consciously (and without coercion) sincerely apply Islamic values in the areas of their lives that they are currently facing or will face. self alone. Furthermore, this recognition includes the values of worship and devotion to God, humanistic values, religious values, nationalism, values of the spirit of self-development (ijtihad), as well as self-development and development. daily life of Southeastern society. The values of peace in colonial life are put into practice[18]. So Islamic Religious Education is a conscious effort by educators to prepare students to accept, understand and practice Islamic teachings through teaching, education or training activities that are determined to achieve the goals that have been determined.

Studying PAI and BP places students in positions where they need to learn, increases their desire to learn, makes them motivated and interested in learning more about the Islamic religion, and helps them learn how to practice religion through learning and learning about Islam. It aims to do both. This is known as knowledge that leads to several significant and relatively constant changes in the cognitive, emotional

[16] Abuddin Nata, *Filsafat Pendidikan Islam* (Jakarta: Logos Wacana, 1997).
[17] Ramayulis, *Ilmu Pendidikan Islam* (Jakarta: Kalam Mulia, 2015).
[18] A. Rafiqi Amin, *Pengembangan Pendidikan Agama Islam*, (Yogyakarta: Lkis Pelangi Aksara, 2015).

and psychological behavior of the cell. The main focus of PAI and BP is the development of Insan Kamil or the perfect human being [19].

Cooperative Learning Type Problem Posing

Cooperative means working together, while Learning means learning, so according to Buchari Alma "cooperative learning is learning through joint activities. Cooperative learning really touches the nature of humans as social creatures who interact to help each other towards getting better and together." Fitriani believes that "cooperative learning is a mutual cooperation learning system that provides students with the opportunity to work together with other students in structured tasks." Meanwhile, Sugianto argues in Fitriani that cooperative learning focuses on the use of small groups so that students can work together to maximize learning conditions to achieve learning goals[20].

Nurdyansyah and Eni F. Fahyuni argue that "cooperative learning is a learning model in which students learn and work in small groups collaboratively whose members consist of four to five students with a heterogeneous group structure. This is implemented to train students to accept differences and work with friends from different backgrounds"[21].

Based on the description presented above, it can be concluded that cooperative learning is a learning model that is student-centered by prioritizing cooperation between students to achieve learning goals.

Aris Shoimin explained that "problem posing is a term first developed by educational experts from Brazil. In problem posing, students are not only asked to create a problem or ask a question but to find a solution. The solutions to the questions they create can be done alone, asked for help from friends, or done as a group. By working cooperatively and making work easier because we think about it together.

[19] Suparta, *Pengantar Teori Dan Aplikasi Pengembangan Kurikulum PAI* (Jakarta: PT Raja Grafindo Persada, 2016).
[20] Ida Fitriani, "Model Pembelajaran Kooperatif Dan Implikasinya Pada Pemahaman Belajar Siswa Di SD/Mi," *Pendidikan Dan Pembelajaran Dasar* Vol.3, No. (2016): h 4-4.
[21] Eni Fahriyatul Fahyuni Nurdyansyah, *Inovasi Model Pembelajaran, Sesuai Kurikulum 2013*, 2016.

"Apart from that, by working in groups, a question or problem can be solved in many ways and with many solutions." [22].

According to Ghanny, problem posing "is a term in English that comes from two words, namely problem, which means problem, problem, and posing from to pase, which means to propose, to form. "According to Silver, problem posing has three meanings, namely: first, problem posing is the formulation of a simple problem or reformulation of an existing problem with several changes to make it simpler and more understandable in order to solve a complex problem (problem posing as one of the problem solving steps)"[23]. It is understood that problem posing is a learning model that expects students to compose their own questions or break down one problem into simpler questions. Learning using the problem posing model is expected to increase students' motivation to learn so that active learning will be created, students will not get bored and will be more responsive. That way it will influence the learning outcomes and will be better.

According to Thabrani and Mustofa in Miftahul Huda stated that "the steps of the problem posing learning model are 1) The teacher explains the learning material to the students 2) The teacher divides the students into groups 3) The students are asked to summarize the lesson material then form 1 or 2 challenging questions. 4) All tasks forming questions are collected and then delegated to other groups. 5) Each student in their group conducts an internal discussion to answer questions they receive from other groups. 6) Questions that have been written on the answer sheet are returned to the original group and then submitted to the teacher. 7) Each group presents the summary results and questions that have been created"[24].

Critical Thinking Ability

According to Sharon M. Kaye, the word "critical" is defined as the attitude of people who criticize the government or political system[25]. Society generally views these people as critical thinkers. Therefore, someone who is critical can be defined as a group of people who dare to argue, whether it is an argument to clarify an agreement or a

[22] Shoimin, *Model Pembelajaran Inovatif Dalam Kurikulum 2013,*.
[23] 2016 Ghanny, "Meningkatkan Kemampuan Pemahaman Matematis Siswa Melalui Problem Posing," *Urnal Penelitian Pendidikan* vol.1, No. (2016): 48.
[24] Huda, *Model-Model Pembelajaran Dan Pengajaran,*.
[25] Mohammad Ali & Mohammad Asrori, *Op.Cit, h. 118p Di Era Digital* (Yogyakarta: PT Kanisus, 2019).

contradictory argument. According to the Big Indonesian Dictionary, the word "critical" means "not quick to believe", "always trying to find mistakes or errors", "sharp in analysis."[26]. Mike Tumanggor defines critical thinking as wise and reasonable decision making related to determining what a person should do in response to a scenario that shows elements of clarity, conclusions and fundamental interactions[27]. Thus, critical thinking involves an analysis process by considering various things so as to produce a rational decision or conclusion.

Facione views that using evidence, concepts, methodology, criteria or considerations as a basis for decision making or as self-regulation in reaching decisions leads to interpretation, analysis, evaluation and inference[28]. Critical thinking also requires the ability to present the results of our thoughts to other people so that those people can understand the direction of our thinking. Basically, critical thinking skills can be possessed by all individuals, but it depends on whether this ability is honed or not. From the descriptions above, it can be seen that critical thinking is a human thinking skill deeply or sharply in the process of analyzing, solving problems, concluding, interpreting and considering so that a final decision or result can be obtained.

Critical thinking is related to Bloom's taxonomy theory which discusses the concept of thinking with levels of thinking which are divided into two. First, lower order thinking skills (LOTS) which contain levels of knowledge, understanding and application. Second, high-level thinking skills or High Order Thinking Skills (HOTS) which contain levels of analyzing, evaluating and creating[29]. In the last three levels in Bloom's taxonomy, in his thinking, Ennis states that all three are classified as critical thinking skills[30]. As in the definition of critical thinking, finding the results of thinking is done by starting with the process of analyzing the problem.

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[26] Kamus Besar Bahasa Indonesia (KBBI), "Arti Kata Kritis-2 - Kamus Besar Bahasa Indonesia (KBBI) Online," (accessed December 3, 2022, https://kbbi.web.id/kritis-2., 2022).
[27] Tumanggor, *Berfikir Kritis, (Cara Jitu Menghadapi Tantangan Pembelajaran 21)*.
[28] dkk. Ely Syafitri, ""Aksiologi Kemampuan Berpikir Kritis," *Journal of Science AndSocial* Research 4 (2021): 322.
[29] Yayuk Susilowati, "Interseksi Berpikir Kritis Dengan High Order Thinking Skill (HOTS) Berdasarkan Taksonomi Bloom," *Jurnal Silogisme* 5, no 2 (D (2020): h. 66.
[30] Rahayu and Imas Cintamulya, ""Analisis Kemapuan Berpikir Kritis Siswa SMP Berbasis Gaya Kognitif Melalui Pembelajaran TPS (Think Pairs Share) Dengan Media Poster, BIOEDUKASI," *Jurnal Pendidikan Biologi* 12, no. 1 (2019): 10.

This description shows that critical thinking is part of high-level thinking and conversely, high-level thinking is also part of critical thinking. Someone who applies critical thinking activities indicates that he is thinking at a high level and someone who applies high level thinking means that he has carried out a critical thinking process[31].

Every human being is equipped with the ability to think from birth. However, this ability has different levels for each individual. This condition occurs because the abilities possessed are not developed properly. Like a skill, the more you practice it, the more visible it becomes. Therefore, here are several indicators that someone is said to have critical thinking abilities according to Facione: 1) Interpretation is the ability to understand and state the meaning of various types of situations, information, events, judgments or various criteria. This skill will guide students to use their reasoning on various things and at the same time be able to make connections to find matches and connections. 2) Analysis is the ability to identify the meaning and relationships between existing statements, questions, concepts and descriptions that are in the problem so as to express beliefs, information or opinions. 3) Evaluation is an ability that refers to the relationship between facts and concepts in assessing someone's opinion from a statement or conclusion in accordance with the question in the problem. 4) Inference is the ability to identify various elements needed to draw conclusions that are in accordance with the data or facts that occur. 5) Explanation is the ability to state one's reasoning in accordance with the reasons expressed based on evidence, concepts or criteria from existing data. 6) Self-regulation is the ability to have awareness to check one's cognitive abilities through analysis and evaluation skills to confirm the results of previous reasoning[32].

Students' Learning Independence

Independence shows confidence in one's ability to solve problems without special help from others and a reluctance to be controlled by others[33]. Independence is usually characterized by the ability to determine one's own destiny, be creative and take

[31] Susriyati Mahanal, ""Asesmen Keterampilan Berpikir Tingkat Tinggi," *Urnal Penelitian Dan Pengkajian Ilmu Pendidikan* e-Saintika (2019): 52.
[32] (Lilis Nuryanti, 2018)
[33] (Nurhayati, 2011: 131)

initiative, regulate one's behavior, be responsible, be able to restrain oneself, make one's own decisions, and be able to solve problems without any influence from others[34].

According to Desmita, independence is the ability to control and regulate one's own thoughts, feelings and actions freely and to make one's own efforts to overcome feelings of shame and doubt[35]. Independence in learning is a learning activity that is driven by one's own will, one's own choice and one's own responsibility for learning[36].

Independent learning is an active learning activity, which is driven by the motive to master a competency that is built with the knowledge and competencies that you already have. Determining competency as a learning goal, and how to achieve it, including determining learning time, learning place, learning rhythm, learning tempo, learning method, learning resources and evaluation of learning outcomes carried out by the learner himself[37].

According to Sumarno, independent learning is a process of careful design and self-monitoring of cognitive processes and is effective in completing academic tasks[38]. Enung Fatimah stated that learning independence can be developed through continuous training and carried out from an early age, this training can take the form of giving tasks without assistance and of course these tasks are adapted to the child's age and abilities[39].

Based on the understanding of several experts, it can be concluded that learning independence is a self-directed behavioral activity that can take its own initiative to be responsible and confident in learning without any help from other parties based on its own motivation to master a material so that it is able to measure its own abilities and be able to solving problem.

Indicators of Learning Independence

According to Mudjiman, indicators of learning independence consist of: discipline in learning, responsibility in learning, self-confidence, active in learning[40]. 1)

[34] Desmita, *Psikologi Perkembangan Peserta Didik* (Bandung, Pt Remaja Rosdakarya Offset, 2012).
[35] Desmita.
[36] Umar Tirtahardja & La Sulo, *Pengantar Pendidikan*, (Jakarta: PT Rineka Cipta, 2005).
[37] Sulo.
[38] Zubaidah Amir & Risnawati, *Psikologi Pembelajaran Matematika*, (Yogyakarta: CV. Aswaja Pressindo, 2015).
[39] Enung Fatimah, *Psikoklogi Perkembangan Peserta Didik* (Bandung: CV Pustaka Setia, 2010).
[40] Haris Mudjiman, *Manajemen Pelatihan Berbasis Belajar Mandiri*, (Yogyakarta: Yogyakarta :Pustaka Pelajar, 2009).

Discipline, namely obedience and obedience, namely obedience to rules or other rules of life, 2) Responsibility, namely having a high commitment to their duties or work, 3) Self-confidence, namely students who believe in themselves will think positively in carrying out their learning tasks, on the other hand, those who do not believe in themselves will think negatively.

Research Results and Discussion

Learning Independence

In this study, the hypothesis test used was a comparison test of two independent samples (independent sample t-test). Before carrying out the hypothesis test, an analysis requirements test was first carried out on the post-test data on learning independence and critical thinking of students in the control class and experimental class with the following results.

Normality Test

The normality test is carried out with the aim of seeing whether the data is normally distributed or not. Normality testing uses the Kolmogrov Smirnov test. Based on the normality test of data on learning independence and learning independence for experimental and control class students in Appendix 17, the results obtained are as shown in Table 2.

I. Tabel 2.

Normality Test Results

No	Data	Sig	A	explanation
1	Classroom Learning Independence Posttest Experiment	0,279	0,05	Normal
2	Classroom Learning Independence Posttest Control	0,106	0,05	Normal

Based on table 2, the results of the normality test analysis show that the significance value of the learning independence data for experimental class students is 0.276, the significance value of the learning independence data for control class students

is 0.106. It can be concluded that the learning independence data for experimental class and control class students is normally distributed because the sig value > α.

Homogeneity Test

The homogeneity test aims to see whether the two groups of data have homogeneous variances or not. Homogeneity testing uses a two-variant homogeneity test method. Based on the homogeneity test of data on independent learning and critical thinking of experimental and control class students, results were obtained as in Table 3.

II. Tabel 3.

Results of the Homogeneity Test for Learning Independence

No	Data	JumlahPeserta Didik	Sig	α	Ket
1	Classroom Learning Independence Posttest Experiment	25	0,321	0,05	Homogen
2	Classroom Learning Independence Posttest Control	25			

Based on Table 3, it can be seen that the significance value (Sig) of the experimental and control class learning activity data is 0.887 and the significance (Sig) of the experimental and control class learning independence data is 0.321 and the alpha (α) value is 0.05. It can be concluded that the data on independent learning and critical thinking between experimental class and control class students have the same or homogeneous variance because Sig > α.

Hypothesis Testing

Hypothesis testing is used to answer predetermined research hypotheses. The hypothesis test used in this research is the independent sample t-test. Hypothesis testing is carried out by comparing the tcount value with ttable or significance (Sig.) with alpha (α) of 0.05. The null hypothesis is accepted if the tcount < ttable or Sig > α. Meanwhile, the alternative hypothesis is accepted if tcount > ttable or Sig < α. Based on the results of the inferential analysis in appendix 17, the results shown in table 4 are obtained.

Table 4. Results of Learning Independence Hypothesis Testing

Class	N	Mean	SD	T count	T tabel	Sig. (2-tailed)	Ket
Experiment	25	88,3	8.68773	5,15	1,708	0.00	H1 is accepted
Control	25	77,1	6.47225				

From the results of the hypothesis test in Table. 4. Testing the hypothesis of student learning independence obtained an average score of 88.3 in the experimental class and 77.1 in the control class. Hypothesis test tcount 5.15 and ttable 1.708 and significance of 0.00 <0.05 means there is a significant influence on student learning independence between the experimental class and the control class. This shows that H0 is rejected and H1 is accepted, so it can be concluded that independent learning using the Cooperative Learning Type Problem Posing learning model is better than learning using the conventional model for class XI students at SMAN 4 Kerinci. This shows that there is an increase in student learning independence after implementing the Cooperative Learning Problem Posing model in PAI learning, similar to what was stated by Yanto & Retnawati (2018) that learning independence is a situation where students take the initiative or have their own desire to learn, determine learning goals, and can correct and evaluate the learning process through learning outcomes. This was also stated by (Purwanti & Ahmad, 2016) through the results of research conducted that the use of the problem posing learning model had a significant influence on students' learning independence[41].

Independent learning is an active learning activity, which is driven by the motive to master a competency that is built with the knowledge and competencies that you already have. Determining competency as a learning goal, and how to achieve it, including determining learning time, learning place, learning rhythm, learning tempo,

[41] Syamsuryani Eka Putri Atjo Meksi , Nurhaedah, "Pengaruh Penerapan Model Pembelajaran Problem Posingterhadap Kemandirian Belajar Siswa Pada Pembelajaran Tema," n.d., 1–15.

learning method, learning resources and evaluation of learning outcomes carried out by the learner himself[42].

The most important thing in the independent learning process is increasing students' abilities and skills in the learning process without the help of other people, so that in the end students do not depend on teachers/educators, mentors, friends or other people in learning. According to Knowles, independent learning does not mean studying alone, and in independent learning particNatural Sciencents can ask questions, discuss or ask for explanations from other people[43].

According to Djamarah, the Cooperative Learning Type Problem Posing Learning Model is an example of a learning model designed to get class particNatural Sciencetion as a whole and individually. This model gives students the opportunity to act as educators for their friends. Learning process activities, the problem posing model is a technique for giving assignments to students to formulate, create questions, or ask questions. The application of the problem posing model in learning activities can be done individually or in groups at school. In the Cooperative Learning Type Problem Posing Learning Model, it is hoped that it will be able to support learning activities in increasing students' learning independence so that students become enthusiastic in particNatural Scienceting in the learning process and can train them to solve problems independently in order to achieve learning goals.

In a learning process that emphasizes independence, learning does not mean being independent from other parties. In certain cases, it is even possible for students to ask for help from educators or other parties who are deemed able to help, but they do not have to depend on them. Independent learning can make students successful. He shows strong evidence of student progress. Independent learning can be successful because it is natural for students to act independently, make their own decisions, and make connections between new ideas and their own situations.

Based on the results of the research and theoretical studies above, it can be seen that there are many factors that influence students' learning independence. Whether it comes from within or from outside the student, such as the application of methods,

[42] Rusma, *Model-Model Pembelajaran Mengembangkan Profeionalisme Guru* (Jakarta: Rajawali Pers, 2011).
[43] (Sutikno, 2016)

models, techniques or strategies applied by the teacher. Where every factor that influences students' learning independence has a determining contribution to students' independence during the learning process of Islamic Religious Education and Character.

Research Results and Discussion of Critical Thinking Ability

Data analysis in this research was carried out by testing the hypothesis using the T-test. Before testing the hypothesis, a prerequisite test is first carried out, namely the normality and homogeneity test. Analysis of prerequisite tests for students' critical thinking. The results of the prerequisite tests can be seen as follows:

Table 5. Critical Thinking Normality and Homogeneity Test Results

Paramater	Kelas		Information
	Experiment	Control	
Normality	0,71	0,15	Normal
Homogenity	0,25		Homogen

Data Normality

Based on Table 5, the results of the normality test for critical thinking data in the experimental class were obtained with a significance value of 0.71 and the control class had a significance value of 0.15 which was greater than α 0.05, so it can be concluded that both classes had a normal distribution.

Homogeneity Test

Based on Table 5, the results of the homogeneity test of critical thinking data of students in the two research sample classes were obtained with a significance value of 0.25 which is greater than α 0.05. Therefore, it can be concluded that both classes have homogeneous variations.

Hypothesis Testing

To determine the effect of the Cooperative Learning Type Problem Posing learning model on students' critical thinking in learning Islamic religious education and character in Class.

Table.6 Results of Students' Critical Thinking Hypothesis Testing

Class	N	Mean	SD	T Test	T Tabel	Sig. (2-tailed)	Inform
Exsperiment	25	89,4	6, 36	3,216	1,708	0.00	H_1 is Accepted
Control	25	68,6	9.31				

Source: Processed Spss 23

Hypothesis test results in Table. 4.8 Testing the hypothesis of student learning independence obtained an average score of 89.4 in the experimental class and 68.6 in the control class. Test the hypothesis tcount 3.216 and ttable 1.708 and a significance of 0.00 <0.05, meaning there is a significant influence on students' critical thinking between the experimental class and the control class, so it can be concluded that students' critical thinking using the Cooverative Learning Type Problem Posing learning model is better rather than learning with the conventional model for class XI students at SMAN 4 Kerinci. According to (Bir et al., 2021) the Cooperative Learning Type Problem Posing learning model is able to improve scientific process skills, life skills and engineering and design skills and students are able to solve various kinds of problems and make new discoveries and innovations. Apart from that, by applying this model students are able to develop 21st century skills, namely critical thinking, communication, collaboration and creativity and innovation[44]. This result was previously expected because in its implementation problem posing learning provides opportunities for students to pose problems and be able to solve these problems in their study groups, so that students can and are used to being able to think critically and can convey it in communication in Islamic education learning.

In the problem posing learning model, after understanding the concepts in the related material, students are given examples of routine and non-routine questions. Routine questions contain the application of concepts that have been mastered, while non-routine questions contain the application of concepts that have been mastered and concepts other than the material concepts that have been discussed. In this way, students get more opportunities to face various problems in learning Islamic religious education

[44] M. Seage, S. J., & Türegün, "The Effects of Blended Learning on STEM Achievement of Elementary School Students.," *International Journal of Research in Education and Science, 6(1),* https://do (2020): 133–140.

so that students get used to using the knowledge they have to develop new knowledge. This is in line with what was stated by Silver (1994), stating that problem posing can help students to solve their problems. Apart from that, in problem posing learning, the learning orientation is investigation and discovery which is basically problem solving[45].

Facing the developments of the 21st century, a teacher has professionalism in carrying out the teaching and learning process. A teacher's professionalism in learning can be seen in his mastery of the technology used for the learning process. In the learning process, a teacher must aim at learning materials that encourage students to think critically. Students' critical thinking abilities can be identified by creating questions based on critical thinking.

In implementing learning, teachers use a learning approach that leads to students' critical thinking abilities. One of the approaches used is the Cooperative Learning Type Problem Posing learning model.

To determine critical thinking skills in learning Islamic Religious Education, specifically Islamic economic principles, the researcher gave 6 questions that had been validated by experts, consisting of analyzing questions, evaluating questions and creating questions. From this test, students are generally able to solve questions with HOTS nuances. So, the Cooperative Learning Type Problem Posing model is effective for improving students' critical thinking abilities. This ability is very useful for students in solving scientific phenomena.

Furthermore, learning using the cooperative learning type problem posing model is able to make students more active, critical and creative, independent in learning Islamic religious education and good character. Currently, teachers only act as facilitators in learning, meaning that learning is no longer centered on the teacher but on the students (student center). Because the use of conventional approaches is not effective, it makes students bored of learning. Because teacher-centered learning will make students less creative and independent[46]. Therefore, the Cooperative Learning

[45] Asterius Juano and Pardjono Pardjono, "Pengaruh Pembelajaran Problem Posing Terhadap Kemampuan Berpikir Kritis Dan Komunikasi Matematis Siswa Kelas V Sd," *Jurnal Prima Edukasia* 4, no. 1 (2016): 46, https://doi.org/10.21831/jpe.v4i1.7801.
[46] S. Lufri, L., Sudirman, S., & Rahmi, "Mengembangkan Skill Mengajar (Teaching Skill) Mahasiswa Calon Guru Menggunakan Multy Strategies.," *Ta'dib, 15(1). Https://Doi.Org/10.31958/Jt.V15i1.214*, 2016.

Type Problem Posing model is one solution in increasing students' critical thinking, creativity and independence in learning.

Conclusion

Based on the results of research data analysis, it can be concluded that the learning independence of students who learn using the Cooperative Learning Type Problem Posing learning model is better than learning using the conventional model with an average score of 88.3 in the experimental class and 77.1 in the control class. Hypothesis test tcount 5.15 and ttable 1.708 and significance of 0.00 <0.05 means there is a significant influence on student learning independence between the experimental class and the control class.

The critical thinking of students who learn using the cooperative learning type problem posing learning model is better than learning using the conventional model with an average score of 89.4 in the experimental class and 68.6 in the control class. Hypothesis test tcount 3.216 and ttable 1.708 and significance of 0.00 <0.05 means there is a significant influence on students' critical thinking between the experimental class and the control class.

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