Problem-Solving Ability in Learning Islamic Education Philosophy Course through IDEAL Stages

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	ABSTRACT
	Islamic education philosophy course cultivates students' critical thinking skill when they are able to solve problems in learning well. Due to the complexity of the course, students often face some difficulties. The aim of this study is to describe problem-solving ability in learning Islamic Education Philosophy course through IDEAL stages (Identify, Define, Examine, Act, and Look). This study used a quantitative method with a descriptive approach. The data were analysed descriptively using manual mathematic calculation. The results of this study revealed that the IDEAL stages were effectively used for solving problems encountered in learning Islamic Education Philosophy course. From the skill test, 8 students got a score of 100 on the A scale with a percentage of 22% who were able to answer correctly and completely in each IDEAL stage. Besides, there were also 10 students who got a score of 97 on A scale with a percentage of 28% who almost carried out all stages correctly and completely. In addition, there were 7 students who got a score of 94 on the B scale with a percentage of 18% which means incomplete in several stages and there were 14 students who got a score of 91 on the B scale with a percentage of 40% which was still weak in several IDEAL stages.

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A. INTRODUCTION

Philosophy seen from academic discipline is defined as a study of the basic nature of knowledge and reality, which its form and existence are studied with reference to certain philosophical systems of thought (John Morgan, 2021). As a thinking process to find answers to various questions, philosophy requires various devices in its activities, including problem-solving that arises to get knowledge or answers from reality. However, if philosophy is viewed from a way of life, then knowledge and reality take the form of self-awareness and the desire to be like whom in this world. Therefore, there is a necessity to have good knowledge, structure, form, and narration of life that will be lived well Hobbs (2018), even though there is no absolute truth in philosophy (Gregory, J. Haynes, 2017). Thus, philosophy will guide a person to a perspective of

seeing his life based on intellectual abilities, physical optimization, as well as emotional and moral order that he chooses.

The ability to acquire knowledge, think critically, understand structures, produce narrations and forms, as well as sharpen intellectuals are part of the learning process in the Islamic Education Philosophy course at Islamic universities, which is certainly based on the epistemological source of law in Islam namely Qur'an and Hadith as initial references. As Sufyan stated that Qur'an as a source of basic material in Islamic law provides a large portion of the use of human reason. Therefore, humans with their intellect can think, do reasoning, and appreciate all of Allah's creations (Sufyan, Q.A., Hartono, 2023).

Islamic Education Philosophy course often provides students with some questions about various views that require critical thinking and carrying out philosophical activities through discussion which will contribute to the learning experience (Doddington, 2014). In the end it can also help to find answers to these philosophical questions. However, due to the complexity of philosophical activities, difficulties are often found in solving problems in the philosophy course. If it is associated with learning skills that must be possessed by students, especially in the goals of 21st-century education, the activity of philosophy is to cultivate critical thinking skills that can be obtained when students are able to solve problems in learning. Therefore, learning process is directed to the basis of the complexity of the problem in order to create skills in various aspects that become the demands of 21st-century education (Chalkiadaki, 2018). The demands of 21st-century education, skills must be integrated into the learning process for all students (Lai & Viering, 2012). When problem-solving in learning is applied to philosophy courses, students actually acquire two skills at once, namely critical thinking and problem-solving skills.

It is necessary to pay attention to the implementation of the learning stages used to grow and develop problem-solving abilities in the learning, so the abilities that become the learning objectives can actually be achieved. One of the problem solving stages that can be used in learning is an IDEAL method (Identify, Define, Examine, Act, and Look) formulated by (Abazof, 2022). Through the IDEAL method, the stages in problem-solving are formulated into several processes, and already have indicators of what students should do in the learning process. The use of the IDEAL method in solving problems in the form of questions for philosophy course is expected to be able to develop students' ability to solve problems given in the learning activity.

B. METHODS

This study used a quantitative method because started from data collection, data interpretation, to research results all used numbers (Arikunto, 2013). Meanwhile, the approach used was descriptive analysis which only provides a real description of a variable tested, instead of testing a hypothesis Arikunto (2013), making comparisons, or looking for relationships with other variables (Sugiyono, 2012). Therefore, the purpose of descriptive method is to find a detail explanation and description about the object of the research systematically Creswell (2012) and describe the current status of phenomenon that exists at the time of study (Ary, Donald, 2010). From the definition above, research that uses a descriptive approach is carried out by seeking information about the phenomenon that will be studied, providing an explanation of the objectives to be obtained, planning, collecting data, and reporting the results of data analysis. Therefore, in this study, researchers looked for an overview of problem-solving activities in learning Islamic Education Philosophy using the IDEAL stages.

The population in this study were 39 students of the second semester in English Tadris Study Program of Tarbiyah Faculty IAIN Curup, who took the Islamic Education Philosophy course in

second semester. They are then divided into 20 students from II A Class and 19 students from II B Class. Total sampling was used as a sampling technique, meaning that all populations are sampled. The instruments used in this study were observation sheets on the results of problem-solving, which then would be categorized by their percentage and the data would be analysed using manual mathematic calculation, then the results were described descriptively. The stages in this research are shown in the Figure 1.
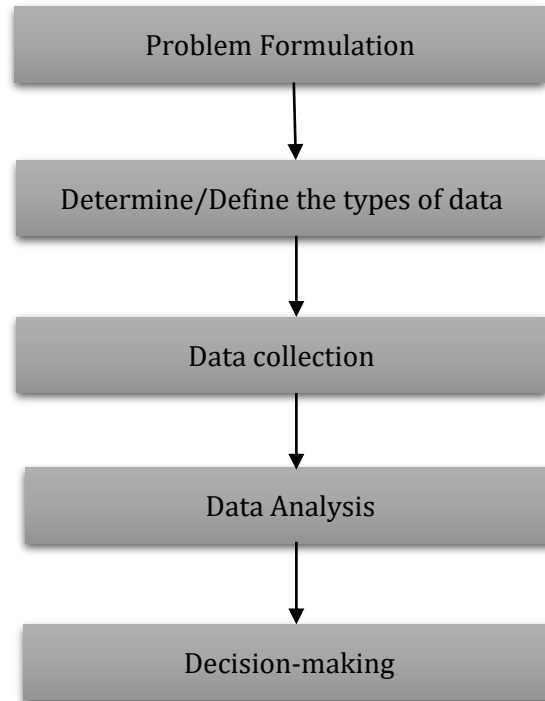
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┌─────────────────────────────────┐
│      Problem Formulation         │
└─────────────────────────────────┘
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┌─────────────────────────────────┐
│   Determine/Define the types of data │
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│         Data collection          │
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┌─────────────────────────────────┐
│          Data Analysis           │
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│         Decision-making          │
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Figure 1. Research Stages

Based on Figure 1 above, there were 5 stages that the researcher used to conduct the research as a whole. First, the researchers started by formulating problems related to problem-solving skill. Second, the researchers determined the types of data that would be used whether in the form of words or numbers. Third, the researchers collected the data and categorized them based on their percentage. After that, the researchers analyzed the data gathered by using simple mathematic calculation and finally the researchers decided and concluded the result.

C. RESULT AND DISCUSSION

Problem solving is defined as a psychological process carried out by a person in order to be able to solve various problems encountered (Dörner & Funke, 2017). In learning, problem solving skills begin with the role of educators as facilitators in learning, and continue by involving students to be able to create clear understanding, relate and strengthen concepts, analyze information, explore, and provide direction in solving problems (Seibert, 2021). Problem solving skills are defined as the ability to think deeply in order to connect one problem to another to find answers to some problems (Riandi, 2016). In order to think at high level, students should have sufficient knowledge in solving the challenges that will be faced (Amanda et al, 2022). Since thinking skill is a cognitive activity, it is necessary to understand that problems are divided into two parts, general and special problems Dörner & Funke (2017), so that cognitively students are

able to understand the learning problems faced are belong to general or special problems, because the thinking concept of both would be different.

In solving a problem, learning must be designed to carry out the process of implementing knowledge and experience felt by students (Rizky Ananda Setiyawan & Palupi Sri Wijayanti, 2020). Hence, problem-solving is very dependent on high-level cognitive activities Alchihabi et al. (2021), whether carried out by individuals or groups Hagemann & Kluge (2017) in order to get solutions to problems given by educators. Solving problems does not merely focus on environmental problems, but this skill is also needed when students go for a job, so that they are able to solve problems accurately, precisely, and quickly (Fang et al, 2016; Martyn et al, 2014).

In learning Islamic Education Philosophy, problems can be given in the form of questions that become the center of philosophy learning, which later will take thinking process, discussing, the experience results, exercises and practice as ways to find answers or solutions (Espinel, 2021). This learning strategy can encourage students to formulate critical questions and discuss the answers (Khalid et al., 2020). So problem solving in the learning process competently aimed to prepare students to be able to solve problems in their lives.

The relationship between philosophy and education is multidimensional, because education is a system consisting of a series of theoretical and practical activities that require values, while philosophy shows how to obtain these qualities and values. The relationship between these two raises the perspective of educational philosophy that can determine the framework and direction of the teaching and learning process (Şahan, 2020). In connection to education, learning philosophy is very important, because it is related to the process of seeking truth and experience based on actual science, because in the future another different form of truth will emerge (Hägg & Kurczewska, 2020). By learning philosophy, students will be able to find other forms of truth in their lives.

In philosophy learning activities, students are required to be able to think critically so that their curiosity about the science to be studied will arise (Furaida & Suryo, 2021). Accordingly, philosophy plays a role in what will be thought, believed, or judged, discovering and reflecting experience deeply, in which the students' difficulty in studying philosophy lies (Sayani, 2015). Therefore, the role of educators becomes important in learning philosophy, because when it does not adopt philosophical concepts, it will result in misperceptions and ineffectiveness of learning practices (Hickey, 2014).

The issue-solving skills approach promotes problem solving to overcome anxieties, according to research findings Foster (2023), a lot of news about how difficult teaching is domain-general approaches to problem-solving and possess the capacity to make strong problem solving available to all students. Likewise, according to Veltman et al. (2021) research, that advances our knowledge of how to use wicked problem-solving as a teaching tool in higher professional education (HPE). The inquiry that motivated it was: How can HPE courses that aim to educate students for dealing with problems with wicked inclinations link problem features, problem-solving methodologies, and outcomes? Nine distinct manifestations of wickedness were found, and it was determined that students should be prepared to deal with these manifestations. These manifestations included the fragmented and changing patterns of problems; the transdisciplinary, adaptive, and participatory nature of the problem-solving process; and the integral, provisional, and mutually-shared nature of outcomes.

Distinct from the findings of the investigation Xun Ge et al. (2016), Encouraging self-regulation is one aim of problem-solving skills. Despite a great deal of research, it is unclear how self-regulation and unstructured problem solving are related. This study offers a conceptual

framework that illustrates the iterative processes between the stages of problem-solving (i.e., problem representation and solution creation) and self-regulation (i.e., planning, execution, and reflection) in order to make the linkages between them more clear. Three ill-structured problem-solving examples from three distinct domains information issue solving, historical inquiry, and science inquiry help to further show the dynamics of the interrelationships. By presenting a fresh perspective on self-regulation in unstructured problem solving and guidance for creating efficient tools and scaffolding techniques to evaluate PBL, the suggested framework advances both research and practice.

Similarly, Jihyun Si et al. (2018) study intends to investigate how medical problem-based learning (PBL) argumentation with the concept map technique affects individual clinical reasoning. Students' success solving problems and the arguments they develop throughout the individual clinical reasoning process are used to evaluate each student's individual clinical reasoning ability. An argument structure that is employed is the Toulmin argument model. The study also looked into potential distinctions between second-year medical students and first-year research students. In the study, ninety-five medical students completed two PBL modules. They are required to work in groups during PBL to develop concept maps based on their justifications for the cases they are discussing. Prior to and following every PBL, they had to compose individual clinical. One of the stages that can be used in developing problem-solving skills is the IDEAL method: Identify, Define, Examine, Act and Look (Abazof, 2022), which can be seen in the Table 1.

Table 1. IDEAL Method in Problem-Solving Ability

No.	Processes	Indicators
1.	Identify	1. Situation mapping 2. Develop steps and procedures in problem-solving
2.	Define	1. Divide the elements of the problems 2. Define the elements in order to be easy to analyze 3. Starting from determining the easiest stages to solve the problems up to the most difficult one.
3.	Examine	1. Examine the steps or procedures of problem solving in order to get the effective way. 2. Predict the risks and challenges that will be faced. 3. Strive for creative solutions.
4.	Act	1. Carry out the problem-solving stages that have been prepared. 2. Take notes of advantages and disadvantages of problem-solving stages. 3. Execute the alternatives solutions that have been compiled if the first one does not solve the problem.
5.	Look	1. Evaluate the stages that have been carried out. 2. Make a summary for efficient problem solving if later find similar problems.

Table 1 above is the indicators of IDEAL stages that the researchers used in boosting students' problem-solving skill. In order to find out the students' problem-solving ability in learning Islamic education philosophy course, questions were given at the 8th meeting which became the mid-semester assessment. The question sheets given to students are shown in the Table 2.

Table 2. Questions to Asses Problem-Solving Ability in Learning

Mid-Term Test Questions		
Formulate the implementation of educational philosophy structures (ontology, epistemology and axiology) based on one of the educational philosophy genre in Islam that you choose. Then explain the implementation of this genre in Islamic education. (Provide your answers based on stages mentioned on the table below!)		
No.	**Stages**	**Indicators**
1.	Identify	- Give definition about the structure of philosophy - Mention the genres existed in Islamic education
2.	Define	- Provide examples for each definition - Explain the genres existed in Islamic education - Create mind mapping in answering the mid-term test questions.
3.	Examine	- Give reasons for the effectiveness of choosing the genre - Create as creative as possible the alternatives solutions in order to strengthen the genre chosen.
4.	Act	- Describe your answers. - Take notes of advantages and disadvantages of the genre you choose.
5.	Look	- Review whether your answers have been in accordance with the mind mapping you made before or not. - Write a statement if you have reviewed all your answers.

The instruction and question provided on the Table 2 above are used by the researchers to know students problem-solving skill. The students are guided to answer the question by following each indicators of IDEAL stages. The next step was to measure the students' ability to solve problems given in the form of questions by looking at their answers. Measurements were made based on the results of student answers, by giving score according to the objective assessment. The following are the assessment guidelines used in this study, as shown in Table 3.

Table 3. Assessment Guidelines of Problem Solving Ability in Learning

No.	Stages	Assessment Indicators	Score
1.	Identify	Students do not write things that they know	0
		Students write the things they know, but still incorrect Students write the things they know, but still incomplete	10 17
		Students write the things they know completely and correctly	20
2.	Define	Students do not write the examples, explanation and mind-mapping	0
		Students write the examples, explanation, and mind mapping, but still incorrect	10
		Students write the examples, explanation, and mind mapping, but still incomplete.	17
		Students write the examples, explanation and mind mapping completely and correctly.	20
3.	Examine	Students do not give reasons and arrange the effectiveness	0
		Students give reasons and arrange the effectiveness, but still incorrect.	10
		Students give reasons and arrange the effectiveness, but still incomplete.	17
		Students give reasons and arrange the effectiveness completely and correctly.	20

4.	Act	Students do not take notes of advantages and disadvantages of the implementation of the Islamic Education Philosophy genre chosen.	0
		Students take notes of advantages and disadvantages of the implementation of the Islamic Education Philosophy genre chosen, but still incorrect.	10
		Students take notes of advantages and disadvantages of the implementation of the Islamic Education Philosophy genre chosen, but still incomplete.	17
		Students take notes of advantages and disadvantages of the implementation of the Islamic Education Philosophy genre chosen completely and correctly.	20
5.	Look	Students do not write a statement of reviewing the answers.	0
		Students write a statement of reviewing the answers completely and correctly.	20
Maximum Score			100

Table 3 above showed the assessment rubric for assessing students answer. If students were able to answer the question precisely and correctly by following all IDEAL stages, the maximum score is 100 with maximum score for each stage is 20. After gathering the results of each stage, they would be sum up so that the total score and its scale obtained by students can be seen from the following Table 4.

Table 4. Assesment Scale of Problem Solving Ability in Learning

Score	Scale
100 – 95	A
94 – 85	B
84 – 75	C
74 – 65	D
64 – 0	E

After assessing the students' answer, data obtained from the mid-semester test conducted by 39 students of class II A and II B in the English Tadris study program is presented in Figure 2.
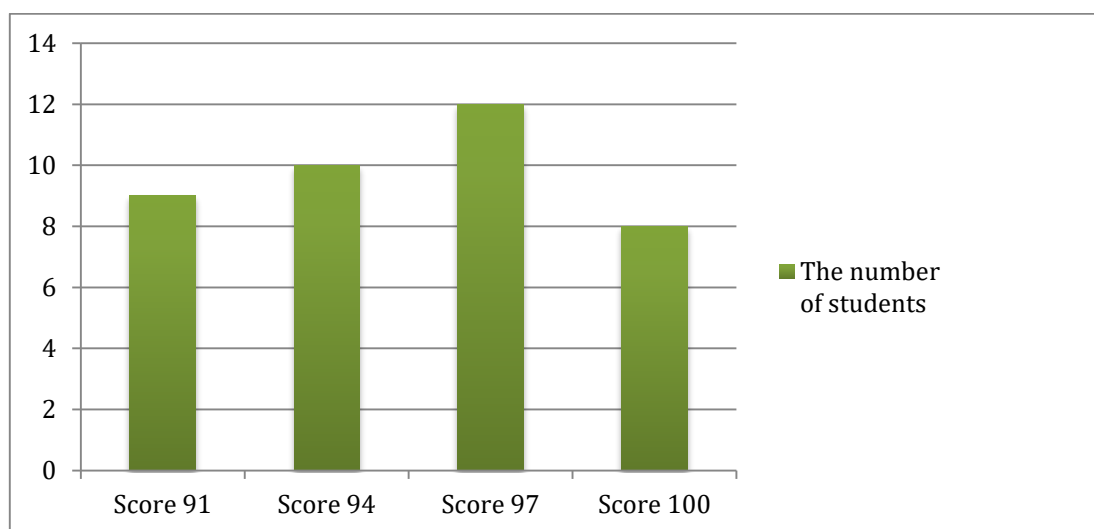

Figure 2. Total Score of Assessment Result on Problem-Solving Skill in Learning

Figure 2 above presents the overall assessment result possessed by the students seen from each IDEAL stage. From the results above, it can be seen that the highest score obtained by students was 100, while the lowest score was 91. These results lead to the assumption that students are able to master the material being tested until the midterm test. Students who got a score of 100 carried out all IDEAL stages perfectly and answer questions completely and correctly. On the other hand, students who got a score of 97 carried out stages 1, 2, 3 and 5 completely and correctly, only in step 4 the questions were answered correctly but incompletely. In addition, students who got a score of 94 carried out stages 1, 2 and 5 correctly and completely, but in stages 3 and 4 they answered correctly but incompletely. Meanwhile, students who got a score of 91 on the problem-solving ability test carried out stages 1 and 5 correctly and completely, however steps 2, 3 and 4 were correct but incomplete. From Figure 2 above, the researchers made group of student's test scores on problem-solving ability in Islamic education philosophy course using IDEAL stages based on their achievements as shown in Table 5.

Table 5. The Total of Students Viewed From Their Score and Scale

Score	Scale	Total Students
100	A	8 Students
97	A	12 Students
94	B	10 Students
91	B	9 Students

If the results from Table 5 above are put into percentages to get a description of the score, scale and number of students, it can be concluded as followed: there are 8 students who got a score of 100 with A scale on a percentage of 20% of the total population. Meanwhile, 12 students got a score of 97 with A scale on a percentage of 30% of the total population. Besides, 10 students who got a score of 94 with B scale on a percentage of 27%. Finally, 9 students who got a score of 91 with B scale on a percentage of 23%. Figure 3 below showed the overall percentage of the problem-solving ability result in learning Islamic education philosophy course:
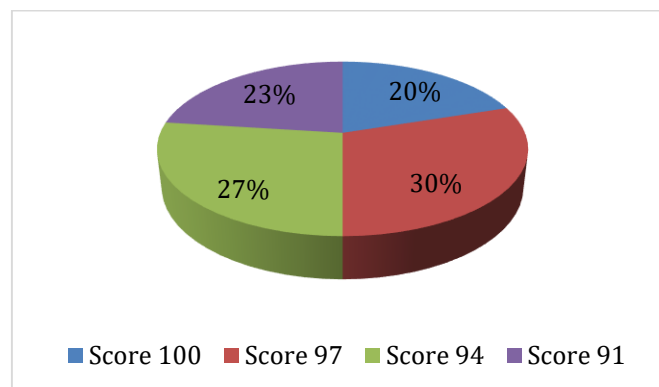

Figure 3. Overall Percentage Results of Implementing IDEAL Stages

To sharpen the research results, interviews were conducted randomly in each class representing each grade achievement. 1 student who got a score of 100 and 1 student who got a score of 97 were taken randomly from class II A. Meanwhile, in class II B, 1 student who got a score of 94 and 1 student who got a score of 91 were also taken randomly. Interview questions delivered to all interviewees were the same, namely how they responded to the results obtained, and how

they were treated in carrying out each IDEAL stage to answer the question of problem solving ability in learning Islamic education philosophy subject.

The researchers found that the student who got a score of 100 answered interview questions by thinking deeply and carefully before answering. He also did not rush to answer, did a mind mapping first and answered based on the indicators of each existing question. Besides, student who got a score of 97, found it difficult to answer interview questions, the difficulty relies on answering the advantages and disadvantages of the chosen genre, so that he only answered simply. Then the student who got a score of 94 had a little difficulty answering the 3rd and 4th indicators of the question, in the form of compiling effective and creative solutions for the selected genre of Islamic education philosophy. Lastly, student who got score of 91 answered interview questions with a statement that it was difficult for him if he had to make mind mapping first, create effective solutions and answer questions completely.

D. CONCLUSION AND SUGGESTIONS

The results of the research on problem-solving ability in learning Islamic education philosophy course using the IDEAL step carried out on 39 students obtained satisfactory scores ranging from 100 to 91 on a scale from A to B. The results showed that there were 8 students scored 100 with A scale which contributed 20% of the total population. Furthermore, there were 12 students who got a score of 97 with A scale which contributed 30% of the total population. In addition, there were 10 students who got a score of 94 with B scale covering 27% of the total population. Finally, there were 9 students who got a score of 91 with B scale covering 23% of the total population.

The interviews results of randomly selected students from both classes showed that the students who got a score of 100 did the IDEAL stages correctly and completely because they follow the indicator instructions at each stage. Moreover, students who got a score of 97, still had difficulty in determining the advantages and disadvantages of the chosen philosophy genre, so they only answered modestly. Then the students who got a score of 94 had difficulty in answering the 3rd and 4th indicators, which assigned them to compile the effective and creative solutions for the selected Islamic education philosophy genre. Besides that, students who got a score of 91 had difficulty in making mind mapping, formulating effective solutions, and answering questions completely. Finally, it can be concluded that the students who were tested using the IDEAL stages and were given instructions in the form of indicators at each stage were able to solve problems well even though there were still found that some students did not complete and pass at certain stages. Lastly, the researchers suggest that future scholars can implement IDEAL stages on another field of study and different level of students, or may investigate the effectiveness of IDEAL stages compared to the other newest strategies.

REFERENCES

A, H. (2018). Philosophy and the good life. *Journal of Philosophy in Schools*, *Vol. 5 No.*

Abazof, R. (2022). *How to Improve Your Problem-Solving Skills*. 10 May. https://www.topuniversities.com/blog/how-improve-your-problem-solving-skills

Alchihabi, A., Ekmekci, O., Kivilcim, B. B., Newman, S. D., & Yarman Vural, F. T. (2021). Analyzing Complex Problem Solving by Dynamic Brain Networks. *Frontiers in Neuroinformatics*, *15*(December), 1–23. https://doi.org/10.3389/fninf.2021.670052

Amanda, F. F., Sumitro, S. B., Lestari, S. R., & Ibrohim. (2022). The Correlation of Critical Thinking and Concept Mastery to Problem-Solving Skills: The Role of Complexity Science-Problem Based Learning Model. *Pedagogika*, *146*(2), 80–94. https://doi.org/10.15823/p.2022.146.4

Arikunto, S. (2013). *Prosedur Penelitian Suatu Pendekatan Praktis*. Rineka Cipta.

Ary, Donald., et al. (2010). *Introduction to Research in Education: Eight Edition*. Wadsworth Cengage Learning.

Chalkiadaki, A. (2018). 21st Century Skilss Journal. *International Journal of Instruction*, *11*(3), 1–16.

Creswell, J. W. (2012). *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research Fourth Edition*. Pearson Education, Inc.

Doddington, C. (2014). Philosophy, art or pedagogy? How should children experience education? *Educational Philosophy and Theory*, *Vol. 46 (1*.

Dörner, D., & Funke, J. (2017). Complex problem solving: What it is and what it is not. *Frontiers in Psychology*, *8*(JUL), 1–11. https://doi.org/10.3389/fpsyg.2017.01153

Foster, C. (2023). Problem solving in the mathematics curriculum: From domain-general strategies to domain-specific tactics. *Curriculum Journal*, *May*, 594–612. https://doi.org/10.1002/curj.213

Furaida, L., & Suryo, E. (2021). Implementasi Teori Belajar Sibernetika Pada Pembelajaran Filsafat Ilmu. *Jurnal EPISTEMA*, *2*(1).

Ge, X., Law, V., & Huang, K. (2016). Detangling the interrelationships between self-regulation and ill-structured problem solving in problem-based learning. *Interdisciplinary Journal of Problem-Based Learning*, *10*(2). https://doi.org/10.7771/1541-5015.1622

Gregory, J. Haynes, K. M. (2017). *The Routledge international handbook of Philosophy for Children*. Routledge Taylor and Francis Group.

Hagemann, V., & Kluge, A. (2017). Complex problem solving in teams: The impact of collective orientation on team process demands. *Frontiers in Psychology*, *8*(SEP), 1–17. https://doi.org/10.3389/fpsyg.2017.01730

Hickey, G. (2014). The Importance of Learning Philosophies on Technology Selection in Education. *Journal of Learning Design*, *7*(3), 16–22. https://doi.org/10.5204/jld.v7i3.184

John Morgan, W. (2021). What is a philosophy of education? *RUDN Journal of Philosophy*, *25*(4), 565–573. https://doi.org/10.22363/2313-2302-2021-25-4-565-573

Khalid, M., Saad, S., Abdul Hamid, S. R., Ridhuan Abdullah, M., Ibrahim, H., & Shahrill, M. (2020). Enhancing creativity and problem solving skills through creative problem solving in teaching mathematics. *Creativity Studies*, *13*(2), 270–291. https://doi.org/10.3846/cs.2020.11027

Lai, E. R., & Viering, M. (2012). Assessing 21st century skills: integrating research findings. *Annual Meeting of the National Council on Measurement in Education, Vancouver, BC, Canada*, *April*, 66.

Riandi, N. D. (2016). Analisis Kemampuan Bepikir Kompleks Siswa Melalui Pembelajaran Bernbasis Masalah Berbantuan Mind Mapping. *Edusains*, *Vol. 8 No.*, 1–23. https://doi.org/http://dx.doi.org/10.15408/es.v8i1.1805

Rizky Ananda Setiyawan, & Palupi Sri Wijayanti. (2020). Analisis Kualitas Instrumen Untuk Mengukur Kemampuan Pemecahan Masalah Siswa Selama Pembelajaran Daring Di Masa Pandemi. *Jurnal Lebesgue : Jurnal Ilmiah Pendidikan Matematika, Matematika Dan Statistika*, *1*(2), 130–139. https://doi.org/10.46306/lb.v1i2.26

Şahan, H. H. (2020). The Relationship of Prospective Teachers' Educational Philosophy and Life-long Learning Tendencies to their Teaching-learning Process Competencies. *Pegem Egitim ve Ogretim Dergisi*, *10*(4), 1325–1367. https://doi.org/10.14527/pegegog.2020.040

Sayani, A. H. (2015). My Philosophy of Teaching and Learning. *OALib*, *02*(12), 1–4. https://doi.org/10.4236/oalib.1102109

Seibert, S. A. (2021). Problem-based learning: A strategy to foster generation Z's critical thinking and perseverance. *Teaching and Learning in Nursing*, *16*(1), 85–88. https://doi.org/10.1016/j.teln.2020.09.002

Si, J., Kong, H. H., & Lee, S. H. (2018). Developing clinical reasoning skills through argumentation with the concept map method in medical problem-based learning. *Interdisciplinary Journal of Problem-Based Learning*, *13*(1), 1–11. https://doi.org/10.7771/1541-5015.1776

Sufyan, Q.A., Hartono, S. . (2023). Reason as A Source of Islamic Law: Epistemological Approach.

Islamuna: Jurnal Studi Islam., *10(1)*, *19*-. https://doi.org/10.19105/islamuna.v10i1.7835

Sugiyono. (2012). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Alfabeta.

Veltman, M. E., van Keulen, J., & Voogt, J. M. (2021). Using problems with wicked tendencies as vehicles for learning in higher professional education: Towards coherent curriculum design. *Curriculum Journal*, *32*(3), 559–583. https://doi.org/10.1002/curj.100