PEOPLE'S DEMOCRATIC REPUBLIC OF ALGERIA
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UNIVERSITY OF Laghouat
FACULTY OF LETTERS AND LANGUAGES
DEPARTMENT OF ENGLISH

The Impact of *Philosophy for Children* (P4C) on the Development of learners' Critical Thinking abilities among Primary School Pupils: a Case Study

A Dissertation Submitted in Partial Fulfillment of the Requirements for the English Master's Degree

Presented by:
Ms. Ghalem Khadidja

Supervised by:
Dr. Mhamedi Nadir

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Dedication

All gratitude and thankfulness go to Allah the one who has assisted me to begin and complete this humble work.

I dedicate this work for all who are dear to me.

A special feeling and gratitude to my loving parents who were alwayssipporting me along with my academic journey.

To my siblings for helping me overcomes the stress and standing to me till the end.

To my dearest friends Djihad and Zhour thank you for believing in me

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Finally, I would like to thank all of the teachers in our department for always guiding us and been there for us, I am so thankful and grateful for all of your efforts

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Abstract

Critical thinking is considered by many scholars and educators as an essential element to academic success. Critical thinking does not only help learners to develop strong thinking abilities, but also to be autonomous learners. To achieve this goal nemours strategies have been introduced to elevate learners' higher-order thinking skills, but the majority of them have not met the desired outcomes. As an alternative method, philosophy For Children emerged to solve this issue at an early age. This research paper aims at exploring the impact of philosophy for children on the development of critical thinking abilities for learners at an early stage of education. To answer the main research questions, a descriptive research approach was adopted; data collection methods that were used to analyze data gathered consisted of classroom observation, structured checklist, and audio records. Videos were also designed to ensure the full understanding of the main concepts discussed inside the classroom. This study included two groups; the first group consisted of 39 learners from EL ZAHHRA Middle school, and the second group contained 19 learners from the private school EL NOOR. The findings show that the use of the P4C approach was effective in helping learners to think in a more logical way and makes them perceive abstract concepts from different perspectives it also suggests that P4C can be used as an essential teaching strategy to overcome the limitations that the Algerian educational system offers. This research attempted to highlight a new teaching approach, which is philosophy for children, in teaching complex concepts and ideas that may be hard for them to understand in the traditional way. This approach was effective in helping learners use and develop their critical thinking abilities.

Key words: Critical Thinking, Philosophy For Children (p4c)

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General Introduction

Over the past few years, there has been a growing interest in developing individuals' critical thinking abilities. Especially with the rapid technological advancement, Critical thinking is being considered as an essential skill for navigating the obstacles of the modern word. In education, critical thinking is defined as the learner's ability to engage in meaningful discussions, participate in asking questions, evaluate evidence, to make informed judgments and decisions, and the ability to solve problems or dilemmas discussed in the classroom. Within this concept, the development of CT has gained increasing attention among teachers, researchers and policymakers.

Developing critical thinking is essential to the success of an educational journey for student, it is important to foster this ability among children at an early age. This has led to the emergence of educational approaches that are interested in developing critical thinking, such as philosophy for children. The effectiveness of P4C has been tested world widely and has been implemented in different research areas and educational settings to help develop the cognitive abilities of learners.

1. Philosophy as a Means to Develop Cognitive Skills:

Philosophy has always been related to critical thinking, as a tool to explore abstract concepts, analyzing and reasoning. Philosophy provides a powerful way to develop cognitive abilities; by engaging in philosophical discussions. This method is traced back to several centuries and is known as "the Socratic method" developed by the Greek philosopher Socrates. The Socratic Method is a dialogue between teacher and students, to explore the underlying beliefs that shape the students views and opinions.

Similarly, today philosophy is used as a mean to teach complex and abstract ideas to learners in order to develop their metacognitive abilities. Teachers depend on the use of philosophy to facilitate some notions and concepts that may be hard for learners to grasp and to promote creative thinking. Practicing philosophy in education enables learners to reflect on their knowledge and to apply logic in different fields, including real life, not only in teaching and learning.

2. Philosophy For Children (P4C):

Philosophy for children (P4C) is an approach developed by the American philosopher Mathew Lipman that aims at developing a community of inquiry and emphasizes dialogue and reasoning as an important part of the learning process. "P4c is an approach to education, in which the traditional discipline of philosophy is presented in the form of stories for the children, and this story is discussed by the children with the teacher's assistance, and in the process of discussion the children find out that they reason better about the problems in the stories and can make better judgment about these problems." (Lipman, 1993)

Matthew Lipman developed philosophy for children as a reaction to the shortcomings he noticed in the traditional educational system in an attempt to foster critical thinking among children in at an early age. Today his work has influenced our modern educational strategies, highlighting that philosophy is not only relevant but also important in building and developing engaged and responsible individuals.

3. Previous Studies:

Recently, educational systems have recognized the importance of developing critical thinking abilities among learners in at early stage, particularly after traditional teaching methods have dominated for several years. As a result, philosophy for children has emerged as a way to foster a community of inquiry that aims at developing communicative skills, independent thought, collaboration, and effective communication. Research related to the impact of (P4C) has proven its effectiveness, such as that conducted by Caiwei Wu (2021) and Mohd Kaziman Ab Wahab et al. (2022), demonstrates the role of P4C in enhancing critical thinking abilities throughout different educational fields. Their results have proven that implementing P4C can not only promote higher-order thinking skills but also create a more democratic and engaging classroom environment.

Additionally, the application of (P4C) has shown positive results toward its use in the future among different groups of learners. A recent study by Feride Acar and Recep Şahin Arslan (2023) explains that (P4C) approach clearly improved critical thinking and English-speaking skills among seventh-grade students. Participants reported enhanced reasoning, questioning, and analytical abilities, although some expressed challenges, such as the difficulty of some open-

ended philosophical questions. This highlights the dual potential of P4C to empower students' autonomy while acknowledging the need to refine implementation strategies for optimal engagement and efficacy in teaching methodologies.

4. Statement of the Problem:

As mentioned above, critical thinking has gained a lot of interest over the past years in different countries after it has proven its effectiveness in education. However, in Algeria, the educational system follows traditional teaching methods that do not improve higher-order thinking skills and encourage rote memorization. As a result, learners find difficulties in improving their critical thinking abilities that are essential for their future and solving educational problems.

Lipman developed philosophy for children as a way to address this problem and help educators overcome their daily obstacles while teaching. Although that p4c has been tested worldwide and proven its effectiveness, research on its influence in Algerian classrooms is limited, almost nonsexist. Therefore, this study aims at investigating the impact of philosophy for children on the development of critical thinking skills for young learners. Especially the extent to which p4c helps in improving learners' ability to reason, solve problems, and make informed decisions.

5. Research Objectives :

The main objectives of this study are to explore the impact of philosophy for children P4C on critical thinking development for learners. And to provide insight into the effectiveness of (P4c) in enhancing the reasoning and problem-solving skills of EFL learners.

6. Research Questions

In order to examine this, the study aims at answering the following questions:

Q1. What is the impact of (p4c) on the development of critical thinking skills for EFL learners?

Q2. How does participating in (P4c) sessions influence learner's ability to reason, solve problems and making informed decisions?

Q3. What other aspects of critical thinking that P4C may have contributed in developing in young learners?

7. Significance of the Study:

The ability to think critically is an important skill for young learners; it encourages them to analyze information that they receive to make sense of it, as it helps them to solve problems and make decisions based on empirical facts. However, traditional teaching methods in the Algerian educational system neglect the importance of critical thinking as they emphasize rote memorization instead.

One intended outcome of this study is to identify the effect of exposing children to philosophy for children (p4c) sessions on the development of critical thinking skills. In addition, it aims to examine whether critical thinking can be stimulated naturally through philosophical discussions. Finally, suggesting the use of philosophy for children as an essential pedagogical tool to foster critical thinking and autonomous learners in Algeria.

8. Methods:

To gather data for my study, I will adopt a descriptive approach to ensure a holistic analysis of its impact. First, I will start with a classroom observation using a preselected checklist to assess learners' questioning, reasoning, and engagement during (P4C) sessions. Additionally, I will record student discussions to examine their use of logic, arguments, and justification of their own ideas. By combining these methods, I aim to capture a holistic picture of the impact of implementing (P4C) sessions in the development of critical thinking and ensure a well-rounded analysis.

9. Structure of the STUDY:

This dissertation is structured based on the simple traditional model that starts with a general introduction, followed by two chapters, and a general conclusion. The General Introduction includes the statement of the problem, aims and significance of the study, research questions, and research methodology. The first chapter is the Review of Literature, which explores the main ideas about the topic as well as the theoretical framework guiding the research. The second chapter, entitled Research Design and Methodology, concerns the tools and methods

used to collect and analyze findings which offer a detailed overview of the results extracted from the observation and the structured checklist. Added to that, discussion of the findings which examines the results and provides responses to the research questions. Finally, the general Conclusion is a summary of the entire work.

Chapter One:

Critical Thinking and Philosophy For Children

1.1 Introuduction

Today, the quick change the world had witnessed in the field of education pushed policymakers to try to develop critical thinking skills. Education now is no longer about receiving information or acquiring knowledge only. Instead, it changed to involve analyzing and making well-informed decisions. Critical thinking is considered to be a 21st century necessary skill that enables us to navigate complex situations with logic. It is an essential skill that helps us to analyze new concepts and ideas, make decisions based on logical reasoning, and solve problems; it is the basis of active and creative learning.

Critical thinking is based on several cognitive processes, including reasoning, problem-solving, and making informed decisions. Critical thinking teaches learners how to approach problems to find the appropriate solutions by identifying the issues and analyzing challenging circumstances. The ability to evaluate chances, assess solutions, and make informed decisions based on rational analysis rather than gut feelings or outside influences is improved through critical thinking. Similarly, reasoning enables learners to build logical arguments, identify fallacies, and engage in meaningful conversations. These skills are essential for both the learning process and active engagement in the social and professional environments. Critical thinking is a complex cognitive process that fosters important intellectual skills that are needed in our daily lives. Teachers can help learners become more thoughtful, analytical, and responsible thinkers by encouraging critical thinking in the curriculum. These skills are essential for the success of being involved and knowledgeable members of society.

Critical thinking is the art of thinking about thinking while thinking to make thinking better. It involves three interwoven phases: it analyzes thinking, it evaluates thinking, and it improves thinking (Paul and Elder, p1). According to Paul and Elder, in order to think critically, we need first to subject our thinking into some test to be examined, and we must be willing to break down our thinking into parts, and be able to identify what hinders our way of thinking. In this way our thinking will develop a high standards that will help us to be critical thinkers.

1.2 Conceptualisation of Critical Thinking:

Critical thinking is a controversial concept that has been discussed across the entire world differently by many scholars and philosophers attempting to define and explain the key concept of critical thinking. Although these definitions may differ in some points, but the sense keeps the same; all these definitions emphasize the importance of reasoning, problem-solving, and judgment-making.

According to Mathew Lipman (1988, p 6) the founder of P4C approach, critical thinking is "skillful, responsible thinking that facilitates good judgment because it relies upon criteria, is self-correcting, and is sensitive to context." This definition highlights the structured evaluative aspect of critical think as a skill by which learners are enabled to solve problems pertaining to contextual settings. This definition aligns with p4c objectives to encourage learners' ability to evaluate critically their thinking skills and to be able to identify their mistakes and correct them.

According to (Richard Paul and Michael Scriven, 1987), critical thinking is the intellectually disciplined process of actively and skillfully conceptualizing, applying, analyzing, synthesizing, and evaluating information gathered from observation, experience, reflection, reasoning, or communication. While this conceptualization of critical thinking is different from that of Lipman in the sense that it is less problem-solving oriented, it shares the same underlying principle of complex analysis and synthesis of materials. This definition explores the analytical nature of CT, ensuring the ability to evaluate and communicate concepts by individuals.

On the other hand, (Halpern,1998) described CT as the use of cognitive skills or strategies that increase the probability of a desirable outcome... purposeful, reasoned, and goal-directed thinking. This view sees that CT is primarily used to expect positive outcomes by applying skills and strategies that help learners improve their level and setting clear and purposeful goals.

All in all, each philosopher has their own perspective on how to define critical thinking, they may conflict on some points, but at the end they all agree that the main core of critical thinking requires individuals to analyze, interpret and assess the credibility of the information. It provides the chance for the learners to approach the problems logically and be aware of the multiple faces that they have.

1.3 The Need for New Teaching Methods to Foster Critical Thinking in Young Learners:

Despite the acknowledgment of the importance of critical thinking in education, traditional teaching methods frequently fail to achieve this, particularly for young learners. Many conventional teaching methods that are used in our institutions prioritize memorization and standardized testing over inquiry-based learning and intellectual curiosity. As a result, the learners will perform very well in the exams, but they will find themselves unable to think critically about real-world problems and apply the knowledge that they have. Therefore, more teaching methods that require learners-centered and creative approaches that actively engage students in thinking critically, asking questions, and reasoning are desperately needed. Early exposure to such teaching methods will provide a strong basis for lifelong critical thinking and help cultivate open-minded, thoughtful, and reflective individuals.

Children by nature are curious, have a vivid imagination, and are ready to make sense of the world around them. As long as the educational setting is based on promoting curiosity and inquiry, these innate skills form a rich environment to foster critical thinking. Nevertheless, these innate abilities are repetitively decreased when teaching methods require children to be passive by listening, memorization, and repetition. Young learners should be able to ask questions, express ideas and opinions, justify their decisions, and consider multiple perspectives. In addition to improving their understanding of the materials, such approaches help them to be confident and take part in their learning experience.

In order to foster critical thinking in early childhood, new teaching strategies, including project-based learning, inquiry-based learning, cooperative group work, and dialogic teaching, are crucial. By these approaches, the student role is changed to be in the center rather than the instructor being the exclusive source of information. For example, in an inquiry-based classroom, students are put into real-world scenarios, challenges, or open-ended topics that require deep thinking, evaluation of the circumstances, and creativity in solutions. They gain the ability to collect and analyze data and make sense of it.

1.4 Aspect of Critical Thinking:

Critical thinking is a complex process that involves several aspects that shape individuals' knowledge, it enables them to build a foundation to help resolve the complexities that they may face in the future. These aspects contribute to the personal and intellectual development of individuals, although that these aspects differ from one philosopher to another based on their own perspectives and biases, but the main three aspects that they all agree on are: reasoning, problem-solving and decision-making.

1.4.1 Reasoning:

Reasoning is the main component of critical thinking; it refers to the ability by which individuals relate the information, analyze and identify patterns based on evidence. Reasoning allows individuals to differentiate between credible and weak evidence, ensuring that their arguments and conclusions are rational and well-formed. "Reasoning is the process of thinking through a problem systematically by applying intellectual standards such as clarity, accuracy, and logic to reach a reasoned judgment." (Paul, R., & Elder, L.2006).

The core of knowledge theory , developed by Renée Baillargeon in 1987, attempts to understand the way reasoning can be formed in early childhood. Her theory contradict Paiget's own theory that children start to develop their knowledge about the physical world and acquire object permanence around the age of eight months. She believed that infants are born with a ready-made sense of the physical world and that this does not have to be constructed using the 'building blocks' of experience. Later on she called this innate ability of understanding the physical world 'physical reasoning system'. This theory sheds light on the natural ability of children to reason at an early age and challenge the idea that this skill can only be developed by formal education in a later stage of teaching. This aligns with the aim of philosophy for children (p4c) to help children identify contradictions, reason and question the world, it also emphasizes the role of using philosophy for children (p4c) to develop reasoning as a crucial element of critical thinking. Baillargeon's findings on object permanence (the understanding that objects exist even when not visible) can also be related to the understanding of abstract ideas and notions, while the use of p4c to explore abstract concepts such as emotions, justice, and fairness.

1.4.2 **Problem Solving**:

Solving problems is a necessity nowadays, as one of the main components of critical thinking. Solving problems depends on learners' ability to understand and identify the issues to find the appropriate solutions. Valuable techniques and skills are required to solve problems as they may affect learners as individuals or as a group. Some of these problems are frequent while some of them may happen once in a while. Indicators of problem-solving capabilities include understanding problems, planning resolutions, implementing resolving plans, reviewing resolutions. (Polya, 2014).

Defining a problem needs to be done carefully; it starts by stating the problem clearly and choosing a structured approach to analyze the issue and explore solutions. Developing problem-solving skills is important in the educational setting since it provide learners with the ability to navigate complexities, make informed decisions and deal with different circumstances.

Problem-solving is a complex process that is composed of many stages; these stages are highly cognitive. (Facione, 2007) developed a structured approach to help guide the process of problem solving; this approach composed is of six stages that are known as the " IDEALS Framework." The IDEALS are to Identify, Define, Enumerate, Analyze, List, and Self- Correct:

I Identify the Problem: What is the real issue we need to fix ?

D Define the Context: What are the circumstances that frame this problem?

E Enumerate the Choices: What are available options?

A Analyze Options: What is the best course of action?

L List Reasons Explicitly: Why is this best option to do?

S Self-Correct: Look at it again … What did we miss?

This problem-solving approach guides the learners to help them develop their critical and problem solving skills by recognizing the challenges that they may face, and being aware of the different scenarios that they may incorporate will help them form judgments and asses and

evaluate the surrounding circumstances. Effective problem-solving enables learners to approach challenges carefully and form solutions that are logical and practical.

1.4.3 Making Informed Decisions:

Decision-making is the process of making choices by identifying the purpose, collecting information, and evaluating alternative resolutions. It is known that Critical thinking enhances decision-making by encouraging individuals to consider the available options and potential consequences. Taking responsibility for making decisions is an important skill that learners needs to learn in order to decrease the possibility of mistakes and improve outcomes in both academic and real-world contexts. Good decision-making involves assessing risks, comparing alternatives, and applying ethical considerations. Decision-making is a systematic cognitive process that requires a set of steps to follow. using a step-by-step decision-making process can help you make the process organized and find relevant information and define alternatives. This approach increases the chances that you will choose the most satisfying alternative possible.

Today, decision making is the key to the success of learners. Every decision they take will have an impact on their lives, making decisions alone isn't sufficient; they need to understand how this process happened and the main elements that form this process. Decision-making is a complex process involving many variables that sometimes we do not yet fully understand. Generally there are five steps to follow before making a decision, it starts by **identifying the decision**; realize that you need to make a decision and try to clearly understand the nature of the decision you must make. The next step is **Gathering relevant information**; ensure that you collect all the necessary information before you make your decision, for example, what information is needed, the best sources of information, and how to get it. The third step **Identify the alternatives**; As you collect information, you will probably identify several possible paths of action. In addition to collecting information you need to **Evaluate the evidence**; consider the results of your choice and what it would be like if you carried out each of the alternatives to the end. Evaluate whether the decision you choose in Step 1 would be met or resolved through the use of each alternative. And finally, the last step is to **Take action**; You're now ready to take some positive action by beginning to implement the alternative you chose to finally make your decisions. (Sarah Laoyan, 2025).

Decision-making is a fundamental cognitive skill that enhances the abilities of individuals to think critically, solve problems, and navigate different situations. Through structured and systematic steps learners can develop stronger decision-making abilities that prepare them for their learning and responsibilities.

1.5 The Use of Philosophy to Teach Critical Thinking:

Philosophy has long been regarded as mean to develop critical thinking by pushing individuals to learn through questioning, to reason, and to engage in reflective dialogue. Philosophy has always been considered as a discipline that is restricted only for philosophers and scholars. However, recently this point of view started to change after proven its effectiveness in many fields. The use of philosophy in education highlighted the importance of integrating philosophical inquiry to teach learners from a young age critical thinking. By engaging learners in philosophical inquiry, teachers will help them to use and develop their cognitive skills that are fundamental to their learning. By exposing learners to philosophical inquiry, educators can cultivate skills such as reasoning, problem-solving, and the ability to construct and build arguments. Teaching philosophy provides students with the means to analyze abstract concepts, test hypotheses, and develop a deeper understanding of various concepts. The Socratic Method, for example, promotes critical thinking through structured questioning and discussion.

The Socratic Method, is a well-known method of teaching, Developed by the Greek philosopher, Socrates, the Socratic Method uses dialogues between teacher and students. In this method the teacher leads by asking mind-provoking questions to his students, and this dialogue should be mutual, as the student can ask questions on their own while the discussion goes back and forth. The Socratic method of teaching encourages students to explore their thoughts and beliefs, in addition to recognizing how these thoughts and beliefs will contribute to their hypothesis about the topic at hand. This approach also helps foster critical thinking, allowing learners to reach their own conclusions based on self-analysis of the information versus just accepting what they are told.

"I know you won't believe me, but the highest form of human excellence is to question oneself and others. ***- Socrates***

Socratic questioning is mainly effective in fostering critical thinking skills and abilities for young learners. This approach of guided inquiry aims at developing students' habits of deep thinking, self-evaluation, and reasoned judgment. In order to ensure the effectiveness of Socratic questioning, teachers must promote for a classroom environment that values curiosity and open a space for asking questions and provide them with tools to help students foster their own inquiry skills. They also need to provide sufficient time for their learners to answer the questions and encourage deeper thinking and responses, it is important as well to ensure that the discussion is guided without any interference from the teacher to avoid imposing their ideas and thoughts, allowing students to generate answers individually.

The Socratic Question approach encourages individuals to think, reflect, and assess their actions and intentions. By using Socratic Questioning, learners' critical thinking skills are enhanced by encouraging them to evaluate the goals and the meaning of words. This method is essential for developing critical abilities. It requires students to provide more extensive explanations and reasoning, rather than simple yes or no responses; this technique promotes a deeper understanding of the material.

In his book Socratic method and critical philosophy (1949), Nelson explains the concept of the Socrates questioning, as a self-examination method, a technique used by Socrates to understand the complexities of the world surrounding him and his learners, helping them to draw a clear image and develop a better understanding of the concepts and ideas to make it possible for them to live an ordered and reasonable life. This highlights the role of the Socratic Method in provoking questions to discuss ideas, test assumptions, and discover underlying beliefs. Socrates used this technique not only to help his learners find answers, but also to guide his learners to think critically and independently.

The use of philosophy in education provides learners with vital skills that go beyond the classroom. By integrating the Socratic approach, educators can raise a generation of critical thinkers, proficient communicators, and independent decision-makers. In addition, to improving academic performance, this approach contributes to the overall development of learners and prepares them for the challenges of the modern world.

1.6 What is Philosophy For Children?

Matthew Lipman is an American philosopher, known for developing his educational program, Philosophy For Children (p4c), which considered philosophy as a rich source for education and self-learning. Lipman developed his program in the late sixties when he was working at Columbia University, New York.

Lipman believed that children were able to understand and talk about significant matters and wonder, and as an attempt to help children to understand philosophical questions, he decided to make the resources of philosophy accessible to children by meaningful dialogue stimulated by the sharing of literature in which reasoning, questioning and conceptual exploration were the main focus of this literature. His first His first philosophical novel was Harry Stottlemeier's Discovery in 1969s'. Others followed, as documented on the timeline page of the website of the Institute for the Advancement of Philosophy for Children (IAPC), the organization for P4C established by Lipman and his collaborators at Montclair State College (now University), New Jersey.

P4c, or philosophy for children, is a method for teaching young learners important ideas. It's all about curiosity, asking questions, and discussion. At its core, philosophy for kids aims at understanding children. By using easy and simple activities that develop reasoning skills and help children express ideas and listen to others respectfully, it also focuses on moral reasoning and creative problem-solving and makes learning relevant through real-life scenarios.

1.6.1 Key Principels of P4C:

Philosophy for children (P4c) is built upon principles that foster critical thinking abilities, discussions, and reasoning for children. These principles form an environment that helps the learners develop higher-order thinking skills (HOTS), self –awareness, and inquiry-based learning. Here are the four primary principels in this approach:

1.6.1.1 Community of Inquiry :

This approach follows the guided discussion method of teaching where children are required to listen carefully , ask questions, and build on and reflect on each other's ideas to

develop a deeper understanding of different concepts. For example: In a P4C session based on Harry Stottlemeier's Discovery novel , learners may discuss whether lying is always wrong or whether it can be justified , considering moral dilemmas and real-life scenarios.

1.6.1.2 Encouraging Logical Reasoning :

Logical reasoning is a crucial element of critical thinking. It assists learners in distinguishing valid arguments from weak or biased reasoning. In P4c sessions, learners learn to construct ideas, evaluate evidence, and support their arguments through structured discussions and analysis. In the same time teacher takes control of this discussions by using open-ended questions to deepen understanding.

1.6.1.3 Developing Metacognition Abilities :

A key component of P4C is Metacognition, or "thinking about thinking", which provides the children with the ability to identify how this process happens and its patterns. This enhances their capacity to reflect on their own beliefs, preferences, and ways of thinking. The P4C approach focuses on encouraging self-reflection and rising awareness of mental processes, helping children to recognize biases and logical inconsistencies.

1.6.1.4 Enhancing Ethical and Social Awareness :

P4c helps children to learn how to take into account various viewpoints. Through participating in philosophical discussions and moral dilemmas, children learn to consider multiple perspectives and make informed, ethical decisions. A main element of philosophical inquiry is the ability to challenge and question assumptions. P4C educates learners to evaluate the credibility and reliability of sources and information rather than taking it at face value.

1.6.2 How does P4C Differ from Traditional Teaching?

Philosophy for Children (P4C) is very different from traditional education in its techniques, goals, and methods. While traditional teaching focuses on memorization, standardized testing, assessments, and teacher-centered approaches, P4C focuses on discussions, logical reasoning, and learners-centered approaches. P4C values the process over teaching facts; the main purpose of p4c is to assess the process in which critical thinking is developed. P4c aims at improving

collaborative learning. Instead of delivering information as a stated truth, instructors in P4c work as a facilitators guiding the learners through the process to think by asking philosophical and open-ended questions. This method encourages learners to critically evaluate, assess and analyze information.

In contrast, traditional teaching prioritizes a teacher centered approach, where the teacher is the sole source of information. Traditional teaching considers teaching as a process of acquiring fixed facts; learners in this approach are supposed to passively absorb information, memorize facts, and repeat them correctly in exams. Moreover, traditional teaching, focuses on the mastery of the content rather than deep understanding. While traditional education focuses on individual performance and competition, P4C fosters a community of inquiry where learners engage in discussions, evaluate each other's views, and collaboratively develop their critical skills. It equips them with the ability to recall facts and engage with complicated real-world problems, and it helps them to be autonomous, and make informed decisions. Essentially, P4c teaches learners how to think and provides them with the necessary tools that they need to be independent, whereas traditional teaching teaches students what to think without any pervious preparation.

1.7 Historical Background:

Although critical thinking has been acknowledged as an essential skill in education, traditional teaching methods failed in fostering a deep understanding of this ability and its application. Many educational systems place a higher value on rote memorization and standardized testing, which is a good way of retaining information but may not always provide the learners with the ability to critically analyze and evaluate it. As a result, philosophy for children (P4C) has emerged as an alternative to these approaches to improve kids'cognitive development.

In the 1970s Mathew Lipman introduced P4C as a response to the lack of critical thinking in conventional schooling. Lipman saw that children are able to engage in philosophical discussion by nature, and with a little help they can improve their ability to reason, solve problems, and make decisions. He argued that philosophical teaching should start at an early age in order to foster individuals' habits for lifetime learning. His ideas gave birth to the P4C programs that are now used as an essential source to foster critical thinking globally.

One of the main foundations of P4C program is Lipman's novel, Harry Stottlemeier's Discovery, which is used to introduce philosophical concepts to children. The novel revolves around Harry, a young child who starts to doubt ideas about thinking, ethics, and logic. Children who read the stories of Harry are asked to evaluate their thoughts and ideas, develop arguments and justify their choices. The novel encourages an environment where learners engage in debates, question assumptions, and collaborate in building knowledge that is necessary for critical thinking development.

Although the global recognition that P4C has gained in western educational systems, P4C remains undiscovered in many other systems, including Algeria. Integrating philosophical discussions into the curriculum and providing the support to inquiry-based learning present a challenge. However, this study aims at exploring the impact of P4C on critical development among young learners through the use of the novel Harry Stottlemeier's Discovery, and to provide insights into how philosophical inquiry can be systematically incorporated into early education.

1.8 Harry Stottlemeier's Discovery Novel :

As a main part of the philosophy for children program (P4C), Lipman wrote the novel Harry Stottlemeier's Discovery in 1974 to introduce philosophical inquiry to children. The purpose of the novel was to provide children with logical reasoning and philosophical inquiry in an interesting and approachable manner. The novel serves as a main source to engage children in thought-provoking discussions and help them to strengthen their critical thinking abilities.

The novel follows Harry Stottlemeier, a curious and thoughtful child who starts to wonder about the world around him. Harry set out on a philosophical journey through his school experiences and relationships with his peers. He begins to question deeply into concepts and issues such as knowledge, justice, ethics, and what is right and what is wrong. In the novel, and through his journey, Harry realizes that critical and logical thinking can result in a deeper understanding in both daily life and academic subjects such as physics and math.

The novel is designed based on the Socratic method, as Harry and his classmates share philosophical discussions that question their perceptions and pushes them to defend their beliefs and points of view. Throughout the novel, they discuss topics including the fairness of rules, the

nature of truth, and the importance of evidence in forming judgments. The teacher plays the role of a facilitator to these discussions in a manner that promotes autonomous learning rather than rote memorization, emphasizing the importance of questioning in the learning process.

Harry Stottlemeier's Discovery aims at the integration of formal logic and reasoning skills into a work of fiction. Syllogisms, logical sequences, deductive and inductive reasoning, and other basic concepts of logic are introduced in the chapters of the novel. Moreover, after reading the novel, young children will naturally start to use these abilities on their own to interact with the characters' conversations and dilemmas.

Furthermore, the novel aligns with Lipman's educational philosophy, which holds that children can engage in meaningful philosophical inquiry from an early age and that such inquiry encourages intellectual autonomy which is consistent in the novel. Through the discussions in the novel, students are urged to develop skills of self-correction, open-mindedness, and respect for different points of view, which are key components of critical thinking.

Finally, Harry Stottlemeier's Discovery is more than just a novel; it is a teaching tool that represents the values of philosophy for children and its pricepale and serves as a guide to apply P4C. The novel is the basis of P4C and continues to be used worldwide as a mean of fostering critical thinking skills such as reasoning skills among young learners. By introducing children to philosophy through storytelling, Lipman provides them with a model for inquiring, reasoning, and engaging in meaningful discussions, which can ultimately help them become more thoughtful and responsible individuals. The goal of Philosophy for children is to rebuild and explain the history of philosophy in a way that allows children to use it in the appropriate manner for themselves to reason well in a self-correcting manner. For children to develop the ability to think well for themselves about matters of importance and to consist a philosophical dialogue within the context of a classroom community of inquiry. Such a community concerns itself with the development of good critical and creative thinking and the cultivation of good judgment.

1.9 Review of Literature

In the past few years, the educational setting has shifted its focus to improve the critical thinking skills and abilities of students and several approaches have been tested. One of these approaches is p4c, a pedagogical approach developed by Mathew Lipman that aims at creating a community of inquiry where learners engage in deep conversations to help improve their critical and creative thinking skills. Based on the excited literature several relevant studies on the effect and the implementation of p4c approach have been singled out.

Caiwei Wu (2021) stated that after the sudden change of the Chinese educational system in 2010, the government shifted its focus to promote critical thinking skills, which emphasized skills such as independent inquiry, cooperation, communication, and problem solving as well as fostered cognitive skills. Teachers received training in China and used methods. Moreover, the training content included essential theoretical knowledge, opportunities for practice, and some useful resources. As a result, the pilot teacher positively affirmed the training outcomes, and based on the responses of the students in secondary school, they were willing to accept this new teaching pedagogy.

Mohd Kaziman Ab Wahabet et al (2022) stated that the one program that can help children to find their own path towards meaning is the Philosophy for Children (P4C) program. According to the findings of this research, this program has shown its effectiveness in improving Higher-Order thinking Skills, civilized Students, culture of Thinking, Safe Environment and promoting democracy among student. These skills help Student to explain their views without feeling that their views will provoke controversy. In addition, teachers will also encourage learners to express their views by providing strong reasons, along with examples to support their views.

The report titled “21st Century Student Profile” by the Ministry of National Education in Turkey(2022) indicated the significance of 21st century thinking skills, most importantly problem-solving and decision making. The purpose of this study was to examine p4c curriculum in prompting these skills. The results have proven that the Philosophy for Children curriculum promotes critical thinking skills through philosophical inquiry and noted that implementing the

Philosophy for Children approach within a 7 month program results in a significant difference in the critical thinking levels of primary school 5th grade students.

Feride Acar et al (2023) Defined critical thinking as the thinking process that enables the individuals to formulate and construct new knowledge through questioning, searching for reliable information, and asking relevant questions. Feride Acar et al after examining p4c approach, indicate a remarkable contribution to the development of critical thinking and speaking skills in the experimental group. The participants also expressed that P4C practices helped them to enhance their CT and higher-level thinking skills, such as reasoning, explaining, questioning the credibility of the information, analyzing, or evaluating. However A low percentage of the participants reported negative comments on P4C practices; that they felt bored and confused when they were addressed with many compelling and open-ended philosophical questions.

F.pala(2023) argues that philosophy education for children can be effective in teaching social studies. When studies regarding this subject were examined, no study was found on philosophy education for children in the field of social studies education. According to the results of this research, a significant difference was found on behalf of the experimental group between the mean rank of the experimental group's Conceptual Achievement Exam Students stated that practices of philosophy education for children influenced their critical thinking mostly, and then their creative, social skills, verbal and empathy skills and helped in changing lessons from being dull to being interesting, to increasing the success of the lesson, to developing some skills, loving the lesson, and increasing relations with friends.

Yoko Kitami et al (2022) The Japanese educational system has always depended on traditional pedagogy and applied high-stakes standardized admission testing which created a high level of stress among students, as a reaction to these challenges, the Japanese government revised educational goals toward more holistic development in association with socioemotional learning (SEL) and critical thinking skills. In revising their nation’s educational goals, the Japanese government emphasized the teachers holding high expectations for all children and promoting their self-esteem and aspirations. Teachers used P4C to address these holistic goals; as a result, they reported that the use of p4c approach can improve SEL. By applying P4C in the

classroom, teachers help students to think independently and critically, understand themselves and others, and work collaboratively toward mutual goals.

Hafizhah Zulkifli et al(2020) assert that In 1997 the Malaysian educational system introduced for the first time the concept of "smart school" that aims to develop individuals with high thinking ability and skills, such as knowledge, thinking skills, leadership skills, bilingual proficiency, ethics and spirituality, and national identity . However, the majority of teachers have failed to engage students in effective teaching, as they still employ the lecture method instead of focusing on promoting Higher Order Thinking Skills (Hots) in addition to this, some teachers reported that they have experienced some difficulties, including the inability to relate to the moral values in real-life situation among students, lack of teaching aids and a lack of interest from students. As an alternative method P4C has emerged as a new pedagogy to help overcome these issues. A quasi-experimental design was chosen for the assessment of this study, the participants were divided into two groups, a pre-test and post-test were applied to both groups. The result of critical thinking t-tests showed that there was a statistically significant difference in both the pre-test and post-test of the critical thinking mean scores of each member of the treatment group. This implies that P4C is relevant in fostering active and critical thinking as well as enhancing critical thinking .

1.10 Conclusion:

To conclude with, fostering critical thinking skills for young learners is one of the main objectives of modern education, particularly in the light of world complexity and absorbed information. This chapter highlighted the theoretical principels of critical thinking, following its definitions of key aspects, including reasoning, problem-solving, and making informed decisions, in which these aspects are important for both the learning experience and lifelong journey of the learners. Instead of following teaching approaches that focus on passive learning and rote memorization that may not be adequate to develop autonomous learners, the use of Philosophy For Children Method will provide the opportunity for learners to be critical thinkers and offer a revolutionary framework that will help the policymakers to design activities that develop critical thinking and build a community of inquiry.

Matthew Lipman's introduction of P4C formed a dramatic shift in the way children learn. Using philosophical inquiry at the base of it, P4C provides learners with the tools they need to absorb knowledge in an easy and respectful environment. This can be seen in the novel Harry Stottlemeier's Discovery, in which this method presents philosophical concepts through storytelling and turns abstract ideas into more accessible and meaningful ideas for young learners. Through Harry's journey, learners are invited to discover ethical dilemmas, logical puzzles, and questions about the source of knowledge and existence, all of which stimulate their critical abilities. Such educational researches has frequently demonstrated that P4C and similar methodologies has greatly enhanced learners' reasoning, communication, and social-emotional skills. Therefore, this chapter provides insight into how Harry Stottlemeier's Discovery, as a main component of the P4C approach, can be used as a practical mean to foster critical thinking among young learners.

Chapter two:

Research Methodology and Study Design

2.1 Introduction

This chapter will present the methodology section through which the data were collected using classroom observations as a main instrument in the qualitative research approach alongside with structured checklist and audio records of classroom discussions. The main purpose of the observation was to investigate how Philosophy for Children (P4C) approach influences the progress of critical thinking skills and abilities for young learners and to ensure a holistic understanding of learners' perception of P4C sessions. The data collected were examined in relation to the research questions and goals. This chapter is devoted to the description and the analysis of the data collected to finally draw the final conclusion, by providing a description of the research population, sample, and methodology, as well as the tools and procedures used for data collection and analysis.

2.2 Background of the Study

Nowadays, many educational systems in the world have increasingly adopted new methods that supports and fosters learner-centered pedagogies that target higher-order thinking skills. Including, Philosophy for Children (P4C) approach, which is developed by Matthew Lipman. This approach has gained recognition for its effectiveness in improving learners' ability to reason, discuss philosophical ideas, and reflect thinking among young learners.

In the Algerian system, the use of such pedagogies is still under study, in certain contexts. Despite its recognition on a global scale, the use of philosophy for children in Algeria is still unexplored. M. Benrabah (2007) stated that "This educational confusion, rooted in inconsistent language policies, has contributed to a classroom culture dominated by rote memorization and teacher authority, rather than fostering student agency or critical dialog." And this explains clearly how the educational system has failed in developing critical thinking because of its dependency on lecturing and memorization over analytical thinking. As a result, learners lack the necessary skills to think critically and successfully deal with the difficulties and issues they face in their academic and social journey effectively.

Therefore, this study aims at exploring this gap by investigating the impact of Philosophy for Children on the development of critical thinking skills in Algerian young learners. Specifically, it aims at examining how P4C can enhance learners' abilities to reason logically, solve problems independently, and make informed decisions. These skills that are currently underdeveloped because of the limitations of conventional te aching practices in Algeria.

This study is important for several reasons. Starting with the necessary need to fill a vital gap in Algeria's educational system, where conventional teaching methods still dominate inside the classrooms and frequently fail in developing critical thinking, problem-solving skills, and independent learning. These skills are critical for 21st century abilities. This study aims at offering an alternative pedagogical approach that aligns with the international educational systems and is designed to meet the necessary requirements of Algerian learners by presenting and evaluating the Philosophy for Children (P4C) approach. In addition, this study seeks to provide empirical evidence on the possible advantages of using P4C in early educational stages for learners in Algeria, particularly in primary education where fundamental cognitive skills are starting to develop. Furthermore, it targets the urgent need to change the conventional Algerian pedagogies and align them with global educational standards that advocate for curriculum that reflects thinking, active participation, and ethical awareness from an early age.

2.3 Research Methodology

This study used a descriptive research approach, where classroom observation served as the main source and method for data collection. This approach was chosen because it enables for an in-depth insight and understanding of how P4C sessions influence critical thinking abilities for learners and how learners interact, reason, and reflect during philosophical discussions. Observation is especially useful for capturing real-time behaviors and allows for documenting classroom dynamics that demonstrate the development of critical thinking.

The descriptive approach is used to answer what, when, and how this phenomena take place, it is a common way of describing the population, sample, and the characteristics of the observed phenomenon. It usually used when the researcher aims at identifying impact and results. This type of research allows for the use of different methods that permit the investigation

of more than one variable; but, if we use this approach when we are planning to observe the variables only, we don't manipulate them.

This approach provides a window into how learners interact with the abstracts ideas and concepts, questions assumptions, and work together to create meaning and shares a inquiry-based community. Furthermore, this approach is useful for recording learners' dynamic and spontaneous actions during class discussions, as well as nonverbal signs, group interactions, and learners' development through the observed sessions, whic is important to understand how critical thinking abilities evolve over time. This study tends to provide a well-rounded understanding of how the P4C approach promotes cognitive, social, and emotional growth through philosophical discussions and learning by questioning.

2.4 Population and Sample:

In order to investigate the impact of philosophy for children (P4C) two distinct populations and samples were chosen to ensure the reliability and depth of the findings by integrating both learners' observable behavior and educators' professional insights.

The population under study comprises young learners enrolled in primary and secondary education, specifically those within the age range of nine to twelve years old (9 to 12 years), who are according to Mathew the best age to apply philosophy for children, as they are in a cognitive phase suitable for engaging in philosophical discussions and developing critical thinking skills. "I was assured by the physiological aspects that this is where children begin to be interested in the formal aspects of problems, and logic deals with the formal aspects of problems, so I thought that this would be a good time to introduce logic to children"(Matthew, 1992).

These learners of the first sample are part of El Zahra middle school, second year middle school, located in Laghouat. The group consists of a total of thirty-six students (36); 17 of them are girls and 19 are boys. This group was chosen because their ages fits with the developmental stage where abstract thinking, reasoning, and reflective dialogue start to appear , making them appropriate participants for Philosophy for Children (P4C) sessions.

The second sample was taken from the private school El NOOR located in Laghouat, Mamoura city. The sample consists of seventeen primary school students enrolled in the fourth

year, in which their ages range between nine and eleven years old. The group compromises 9 nine boys and eight girls. These children forms the appropriate participants for P4C sessions that aims to promote critical thinking abilities as they are in the stage where their brains are ready to receive such activities that are vital for their social and cognitive development.

During the sessions of the second sample the stories were delivered in Arabic to ensure the full understanding of the meaning of the story to the kids and to provide learners with the ability to express their ideas and thinking without the barriers of the language and at the same time, mange the philosophical discussion. This decision was taken carefully after knowing that this step would not affect the purpose of this study, as the main objective of this study is to examine the impact of philosophy for children on the Algerian learner, as the main targeted objective is critical thinking as an independent skill that is domain-specific and not the mastery of the language. Which cummin's common underlying proficiency theory support this claim.

According to Cummins' Common Underlying Proficiency (CUP) theory, all cognitive and academic skills acquired in one language can be applied in another. Which means that cognitive skills are not language-based, but on a common cognitive basis. By incorporating learners in deep thinking, reasoning, and reflection in their own language, they can ensure the development of critical thinking in the most efficient way possible, without any burdens from language barriers. According to Cummins, "conceptual knowledge developed in the first language helps to make input in the second language comprehensible" (Cummins, 2000, p. 39). Which means the moment higher-order thinking skills are acquired in the L1, they can be transferred to the second language (L2) when the linguistic proficiency allows.

Using Arabic provide learners with the ability to fully understand and engage with the philosophical themes of the stories, ask meaningful questions, and discuss confidently in dialogue. This aligns with P4C principles of fostering community of inquiry, reasoning, and collaborative work, which are best reached when students are able to express themselves freely and authentically. Therefore, by prioritizing cognitive engagement over linguistic proficiency, the sessions respected the principles of CUP and laid a strong foundation for both academic and cognitive development.

2.5 Tools for Data Collection

The main instruments used for data collection for this study were structured observation, a pre-selected checklists, and audio recordings. The observation checklists were selected carefully after reading and searching about the topic to help assess and identify key indicators of critical thinking, such as logical reasoning, problem-solving skills , justifications for their opinions , and their reflections to their classmates' points of view, in addition to collaborative work. These indicators were informed by both the P4C framework and existing literature on critical thinking in young learners.

2.5.1 Observation:

Observation is a valuable data collection tool that is used to collect qualitative data and help researchers gain an insight to understand the phenomena that is been observed. In this research it is used as the first data collection tool to help notice learners behaviors, attitudes, reflections, and if they are using their mental abilities as critical thinking .

Marshall and Rossman (1989), define classroom observation as *"the systematic description of events, behaviour, and artefacts in the social setting chosen for the study*". (P. 79)

Observation served as a crucial mean in understanding how students engaged in philosophical discussions and how they react with the activities. Real-time observation of the sessions allowed us to gain an insight into how learners think, how they interact with each other, and their engagement with the teacher. This approach enabled a naturalistic view of the learning environment and gave access to the non-verbal behaviors, such as facial expressions, gestures, and body language, which they play a critical role in understanding learners' level of engagement and critical thinking abilities.

2.5.2 Audio Record :

In this study, audio recordings were used to help collect data that are rich, authentic, and valid during the practice of Philosophy for Children (P4C) sessions. These recordings were used

to capture all verbal interactions among students and between the students and their intraction with the teacher.

In addition to observation, audio records were used to help for a well-rounded understanding and analysis for learners progress. These recordings captured the entire dialogue and classroom interactions in detail, which allowed for a review and transcription of discussions for deep analysis. The use of recordings helped ensure data accuracy and allowed for grasping some specific moments that might have been ignored during real-time observation. It also enabled the distinction of patterns in learners' reasoning and interaction over time, making it possible to track the progression of their critical thinking skills across multiple sessions. The combination of observation and recordings provides a rich data collection that helps verify the validity and reliability of the findings.

2.5.3 Checklist:

As a third tool to collect data, a structured observation checklist was implemented as one of the key tools for systematically recording learners' behaviors and interactions towards the application of Philosophy for Children (P4C) approach and activities. This data collection tool was created to capture specific criteria of critical thinking, ensuring the ability to observe, record, and later analyze learners' cognitive engagement in real time.

The observation checklist was assigned carefully after further readings about topic, and based on the primary principles of Philosophy for Children, as explained by both the P4C methodology and educational literature on cognitive skill development in young learners (Lipman, 2003; Ennis, 2011). The checklist included the following key indicators that align with the main principals of P4C:

- **Reasoning**: does the student offer logical justifications for their opinions or claims?
- **Problem Solving**: are learners able to understand and identify the main problem or question?
- **Making- informed decisions:** what are the main criteria's learners rely on to make decisions?

In addition to these three main indicators it was also taking into consideration the level of respect learners show to each other and how they react to different point of views, and if they reconsider or change their thinking after hearing new ideas.

Using a checklist is significantly effective in studies that involve young learners since it enables the researcher to identify signs of development that might be neglected in unstructured observation. It also helps ensure reliability in the data gathering process through the use of predefined, research-informed criteria (Ary et al., 2019).

For this study, the checklist was crucial in observing learners' cognitive development, and how they reacted and received P4C sessions. By combining the observation, audio recordings, and a structured checklist, the researcher was able to **triangulate the data**, increasing the credibility and validity of the findings.

2.5.4 The Lessons Used for the P4C Sessions

As part of this study, five sessions were planned, the first two sessions was to break the novelty effect with the learners and to observe their behaviors and interactions with the teacher. Following this, three sessions were designed for Philosophy for Children (P4C) to investigate how structured philosophical discussions can emphasize the development of critical thinking for young learners aged between nine and eleven (9_11 years old). These lessons served as the core of this research, aligning with the overall aim of assessing the impact of the P4C approach on children's cognitive processes in an Algerian primary classroom setting.

Each lesson was centered around a short philosophical story, adopted and inspired by themes and concepts found in Matthew Lipman's novel Harry Stottlemeier's Discovery. These were the following stories:

First session:

Story title: "The Thinking Box"

This story was taken from the first chapter where Harry starts to wonder about the nature of thinking and asks himself questions like: *"Can we think about thinking?".*

Learning Objectives: the main objectives of this lesson was

- To understand what it is thinking and what is meant by reflecting.
- To Practice asking philosophical questions.

Time constraints: 1 hour

Activity:

the learners were divided into two groups for **"thinking"** and **"not thinking", and** had the learners suggest secenarios for the two situations and discuss them**.**

Second session:'

Story title: "The Red Line Rule"

The second story was taken from the fourth chapter; this chapter tackled an important theme that which is ethical judgment. In this chapter, Harry and his friends discuss if it's always fair to follow the rules, and if there are any rules that are wrong or even need to be broken.

Learning Objectives:

- To explore what is meant by rules and fair judgments.
- To discuss why do we follow rules and when do we break them.

Time constraints: 1 hour

Activity: does the rule fit the game

the learners were given imaginary situations where they had to decide if the rules were appropriate or not**.** And they had to justify and discusses their answers.

Third Session

Story title: "The Two Suns"

The last story was taken from the seventh chapter, which discuss the difference between truth, beliefs, and perceptions. Harry questions if believing in something is enough to make it true, or do we need evidence for this?

Learning Objectives:

- To explore the difference between truth and belief.
- To learn to question what is known as "truth."
- To help develop reasoning and questioning skills.

Time constraints: 1 hour

Activity: truth and belief game

Learners were given several sentences to identify which are a common truth and which ones are personal beliefs.

Following the reading of each story, learners were asked to join a "community of inquiry" discussion, in which they were encouraged to comment on the stories, ask questions, express their ideas, and listen to each other. Where the teacher plays the role of a facilitator, not an instructor to ensure that learners lead the discussion while being guided toward deeper reasoning. These sessions were recorded and analyzed for signs of critical thinking development, such as the use of reasoning, questioning, and collaborative working.

2.5.5 The Use of the Videos:

To ensure learners engagement and the full understanding of the stories, the short philosophical stories were turned into a short animated video with narration. These videos were designed to enhance the experience of storytelling for learners; visual storytelling and the use of audio narration in both languages, English and Arabic, was effective to capture learners' attention, explain story events, and facilitate the understanding of abstract ideas for learners. The videos kept the same structure of the stories and included visual to help stimulate imagination and interpretation. This videos served as an introduction to the main problematic and concept that were been discussed in the session. By exposing learners to these videos before the

discussions, they were able to remember details, express their opinions about what they had seen, and be more emotionally attached to the characters of the stories and situations. Furthermore, the use of videos supports different learning styles and contributes to creating an inclusive, engaging, and thought-provoking environment that aligns with the principles of Philosophy for Children.

2.6 Data Analysis:

The process of data analysis for this study went through three different sections: global progression of critical thinking, parameter progression of critical thinking, and the meter progression of critical thinking. The analysis focuses on identifying preselected indicators of critical thinking, which are reasoning, problem-solving, and making informed decisions, that are demonstrated by the learners during and after participating in P4C sessions based on chosen stories from *Harry Stottlemeier's Discovery novel*.

The global progression of critical thinking

Starting with the global progression of critical thinking skills during P4C sessions, this refers to the overall analysis of the way learners' critical thinking skills and abilities developed throughout the P4C sessions. The global progression chases the general progression across the whole group, rather than focusing on individual learners or specifics of critical thinking. It is based on the data gathered from the checklist and classroom observation that are designed to assess classroom discussions, learners' engagement, and the quality of collective critical thinking aspects observed. Indicators such as learners' ability to justify their opinions, make logical connection, consider results, and providing solutions or alternatives were used to illustrate the group progress.

To track the global progression of learners' critical thinking skills, this section provides learners' development on critical thinking during the three sessions of Philosophy For Children (P4C) performed during the study. The analysis is based numerical score of how much learners were engaged in philosophical discussions and some critical thinking criteria that have been

demonstrated. Each session is discussed individually, followed by interpretation of the general progression observed across the sessions for the two groups.

First session:

First group:

For the first session, learners were not familiar with the P4C approach and the nature of the philosophical discussion, this method was still new for them. This made their participation limited, and their engagement were generally short and simple, and sometimes without any justification or further elaboration. Few learners asked question and made comments on each other's ideas. While participation was present, it needed some depth, clarifications, and critical engagement. This reflected a global score of 13, as some criteria of critical thinking were emerging, such as signs of curiosity and willingness to express disagreement were observed.

Second group:

As for the second group, the first session was the start of the P4C experience for them, and it was noticed that learners' engagement was limited and lacked an in-depth understanding of the abstract concept as it was their first encounter with such topics. Most learners were still unfamiliar with the structure of this approach and expectations of what was needed from them for the philosophical discussions. As a result, their participation with the discussions was limited and greatly reactive. Their answers were tending to be short and lacking in explanation, often containing personal preferences rather than deeper reasoning or inquiry. This reflects a global score of **9**, which emphasizes the development of such skills in an early stage, where learners were still adjusting to the P4C approach and expectations.

Second session:

First group:

During the second session the progression was noticeable; learners were motivated to engage in the discussions and show confidence in their answers, by sharing more relevant ideas and attempting to defend their viewpoints. They start to ask more questions, and reflect on each

other's points of view. They became more engaged with the discussion, and went beyond surface-level answers. This improvement rate of global progression score of 30 indicates a positive influence on critical thinking abilities when compared to the first session.

Second group:

In the second session, the second group has experienced a significant improvement in participation and the quality of the philosophical discussion. More learners started to express their thoughts and ideas more precisely, and some of them started to justify and explain their reasoning. As the discussion became more interactive and learners became involved, several learners start to reflect on each other's' ideas, and showing signs of interest in different points of view. The global score of the second session marked **23**, which indicates a meaningful development in their critical thinking abilities when compared to the first session.

Third session:

First group:

By the end of the third session, the group experienced strong engagement with the philosophy for children sessions. Learners contribute with meaningful questions, react to one another's ideas with justification, and explore different concepts with much more in-depth understanding of the concepts. The level of reasoning, problem-solving, and justification for their decisions was more advanced than in previous sessions. The global score of 50 reflects this noticeable development and growth, and suggests that learners were prepared to start applying critical thinking skills more efficiently.

Second group:

By the third session, the learners of the second group have experienced a notable development in the level of critical thinking skills. They became more engaged with the discussions and activities, started to ask thoughtful questions, attempted to provide justifications for their opinions and decisions, and responded critically to different points of view. Moreover, learners have expressed a positive attitude toward the use of this approach to teaching. The conversations were more collaborative and reflective, expressing a deep understanding of the

philosophical inquiry process. This considerable improvement is reflected in a holistic score of **46**, which indicates a significant progression.

The implication of this step is crucial; the global progression analysis provides a holistic view of the overall impact of the P4C approach on the development of learners' critical thinking skills. Instead of focusing only on individual progression or isolated criteria, this step enables for a more comprehensive understanding of how the two groups evolved over time in their cognitive processes.

Parameter Progression of Critical Thinking

The second step in this analysis is the parameter progression analysis; after assessing the global progression of learners' critical thinking skills, this step focuses on more detailed analysis of specific parameters that constitute critical thinking; that are reasoning, problem-solving, and decision-making. In contrast to the preceding step, that offered a holistic overview of the learners' progress, this analysis tries to identify which particular area of critical thinking has improved the most across the three P4C sessions.

Reasoning:

Reasoning refers to learners' ability to justify opinions with logical reasoning, rational thinking, and arguments. It is one of the essential skills for philosophical discussion, where learners are required to engage and express their feelings and ideas.

First sample:

The enhancement of reasoning skills for the first group reveales a clear progression across the three sessions. During the first session, learners scored only **5**, showing that learners were still unfamiliar with the right way or how to justify their opinions. Most of their answers were based on personal preferences without any logical justifications, and their response needed to be more elaborate. However, after the second session, the reasoning score rose to reach **10**, expressing a positive improvement. Learners start to use simple and basic justifications and start to explain their ideas, showing a developed signs of structured thinking. Despite the fact their

answers are still limited in-depth, and need clarity, their responses reveal a developing understanding of the need to provide evidence to support their claims. In the third session, reasoning was improved greatly, scoring a score of **16**. By then learners were able to build and construct arguments more confidently, by using examples and logical connections to support their opinions. This progression demonstrates how well the P4C strategies foster learners' abilities to think critically, carefully and clearly.

Second sample

Now for the second group, the progression of reasoning skill also showed a consistent progress across the three P4C sessions. For the first session, the group score was a maximum of **4**, showing a very low skill to provide support for their opinions with rational explanations. The majority of learners expressed their opinions without any kind of logical justification, and their participation was still on a surface level and structured. However, by the second session, learners start to use reasoning skill more accurately, and this is reflected in the increasing score of **7**, some of them start to engage more, and providing rational thinking that supports their claims indicating that learners were able to perceive, and engage more consciously with reasoning skills. Learners began to add simple explanations or examples in their answers. But their arguments were still in an early stage of development and needed depth. The biggest significant improvement was noticed by the third session, where learners scored **15**. By that time, learners were able to justify their ideas, suggest logical explanations, and connecting ideas adequately within the conversations. This enhanced level in the critical thinking abilities between the first and last sessions, empathizes the role of P4C in rising learners reasoning skills to a greater one with clarity and structure.

In conclusion, the parameter analysis of reasoning for both indicates a stable and meaningful development through the three sessions, from a basic opinion sharing to more structured and justified answers. This progression from a score of 5 in the first session to 16 in the final one for the first group, and 4 to 15 for the second group; show that learners' ability to express their thoughts logically and support their claims with clear reasoning has improved. The overall score of **31 for the first group and 24 for the second,** reflects a strong development in

this area, confirming that the P4C sessions were effective in enhancing the group's critical thinking through reasoned dialogue and reflective engagement.

Problem-solving:

First sample:

Over the three sessions of P4C problem-solving skills for the first group expressed a noticeable improvement. During the first session, the group score was only **4**, indicating that learners' ability to solve problems needed to be improved, as their ability to understand and approach questions wasn't bad. Learners tended to be more afraid of answering and sharing their ideas as they were afraid of being judged, with no intentions to explore different solutions or considering the implications of their ideas. While after the second session, learners scored **11**, indicating that learners were starting to engage more actively in finding solutions for problems. Their responses became more creative, and they showed readiness to explore and consider different options, ask questions, and assess outcomes. After the third session, the group reached a score of **17**, indicating improvement in this parameter. Learners start to act more confident and creative in dealing with the philosophical concepts, often showing structured steps in offering meaningful solutions and alternatives. This gradual improvement emphasize that P4C methodology helps in fostering a profound and more flexible way of thinking, allowing learners to acquire problem-solving skills through group discussion,with a total index of 32 for the first group.

Second sample:

As the case for the second group the development of problem-solving skills revealed a clear and steady increase across the three sessions. In the first session, the group scored was only **3**, which reflects the difficulties learners experienced in order to engage critically with the questions and were sharing simple and unstructured answers. Most of the learners were not confidence about the way to approach and deal with problems from different points or how to form possible solutions. However, by the second session, the score was up to **8**, reflecting a positive shift in their cognitive engagement. Learners began to be more familiar with the nature of the problems and tried to explore issues with more creativity to find solutions; providing

alternatives, and expressing a growing willingness to challenge this problems. After the third session with the group, the score reached **15**, indicating that the gap was found in the first session is starting to disappear. Learners' ability to think critically and dealing with complex issues were improving; their participation became more effective, and several learners suggesting realistic and creative solutions to the questions asked. With a total score of **26**, P4C sessions successfully encouraged learners to be critical thinkers by strengthened their problem-solving abilities.

Making informed-Decisions:

First sample:

The progression of decision-making skill for the first group improved significantly throughout the three sessions. In the first session, learners were not aware of this step as they were never put in a situation where they needed to make decisions by their own. And this reflected in a score of 3, showing that learners struggled to make clear judgment without any interference from outsiders, and they lacked the ability to justify their choices while discussions. Their participation was often heisting, needing confidence and evaluation of the outcomes. However they have experienced a change by the second session, the score increased to **9**, showing a growing interest in the decision-making process; learners start to consider different options, assess results, and express more willingness to engage in making decisions and taking choices. While not all of their justification for their decisions was well-developed, the ability to assess and decide was becoming clear. After the final session, the score improved to rose up to **17**, showing a significant progress in learners' ability to make informed decisions. They not only took decisions but also supported them with evidence and facts. This change in progression resulted in a total index of **29**, demonstrates the success of the P4C approach in fostering critical thinking and allowing learners to make more confident, reflective decisions.

Second sample:

Despite that the second group have also showed a low ability in making decision, yet the first session hold a score of **2**, indicating that most learners were from the start passive in their answers, not sure of how to evaluate situations to take action and decisions. Their particepations were limited and rarely shares any form of kind judgment. For the second session, learners' ability to construct decisions score moved to **8**, demonstrating a positive shift. Learners start

showing indicators of evaluative thinking, giving learners simple justifications for their logic and participated more freely in group discussions. The score increased to 16 by the end of the third session, indicating a significant improvement in their ability to make meaningful, logical decisions. Although the fact the group started with a low index, P4C sessions were effective in raising this index to reach **26**, and supported the development of this skill gradually.

The importance of this step stems from its ability to provide a more detailed understanding of how P4C sessions helped in developing specific areas in critical thinking. By assessing the progress of learner abilities to reason, solve-problems, and make informed-descions separately, it helps determine which skill developed more than the others, and making it possible to acquire further reinforcement. This parameter-based analysis provides an insight into the strengths and necessary needs of the learners, enabling for a more structured evaluation of the P4C approach's effectiveness in fostering critical thinking skills.

The Meter Progression Analysis:

Unlike the parameter progression that goes deeper by looking which specific area of critical thinking had developed most significantly, the meter progression analysis goes beyond that; by evaluating how each indicator within each skill improved across the P4C sessions. This stage of analysis is crucial for understanding of which specific sub-skills and behaviors helped in the holistic improvement in a given skill. Such as, for reasoning, it involve assessing the difference in learners' ability to justify opinions, recognize assumptions and believes, and provide examples for their reasoning. While In problem-solving, it includes learner's ability to identify problems, and consider results and assess the outcomes. And for making informed-descions the focus will be on learners' ability to consider multiple points of view, and if they their consideration for ethical and fair judgments. By focusing on these indicators or "meters," this step allows for a particular understanding on learners' cognitive process improvement, and identifies the specific cognitive areas that were strengthened the most during the P4C process.

I. Reasoning :

First Sample:

It has been noticed that the ability of learners of the second year secondary school to justify their opinions has been developed greatly throughout the three sessions. Initially, only a few of them could justify their answers, however, their ability has improved by two levels compared to the first session, from emerging to an excellent. Similarly, their ability to differentiate between facts and opinions, as well as their ability to recognize assumptions and beliefs, both this abilities has improved remarkably with three degrees from not demonstrated at all to a good level, where it is often demonstrated but with minor gaps. The final two indicators for the improvement of their reasoning abilities are their ability to make logical connections with their surroundings and how they can support and provide examples or evidence for their reasons. During the first session it was noted that learners didn't have problems to some extent in these two criteria, but it was noticed that after the implementation of P4C approach these two skills were developed and increased and showed a positive results. These changes reflect that learners do not start to engage more critically with ideas and the effectiveness of this method, enhancing learners' reasoning.

Second sample:

For the fourth-year primary school learners, the use of the Arabic language played a crucial role in facilitating their engagement with P4C sessions, and it was noticed that different criteria of critical thinking were developed gradually, including reasoning. Learners showed measurable improvement in their skills, starting with their ability to justify their opinions and differentiate between facts and opinion, it was clear that these two abilities showed signs of progress during the sessions, moving from rarely demonstrated during the session to demonstrated but with minor gaps. Concerning learners' ability to recognize assumptions or beliefs, it was noticed that learners have not experienced this criteria before, which marked its progress over the sessions very notably, after the implication of the approach learners were able to recognize different assumption and beliefs. Lastly learners' ability to make logical connections and to provide examples and evidence for their reasons, was in a progress moving

from emerging level to a good level skill. These results suggest the potential impact of the use of this approach with young learners, even at an early stage of education.

II. Problem solving:

First sample:

Moving to the problem solving skills, learners performance increased in identifying the main problem or question, rising from an emerging level to an excellent level, scoring three degrees improvement. This demonstrates that by the final session, most of the learners were able to understand and identify the core issue being discussed. In addition to that, there was a gradual change in learners' ability to provide solutions or alternatives from not demonstrated at all to a developing stage, and their consideration of the possible results for their decisions improved from an emerging level to an excellent level. That reflects the change in their thinking into a more analytical and in-depth thinking of their actions. Plus their consideration to the results, the assessment of those solutions based on their fairness and effectiveness improved from an emerging level to a good level, which reflects enhancement in the critical abilities and analytical thinking. Creativity in solving problems indicates a stable improvement from emerging to a good level, showing that learners became more confident in thinking outside the box and proposing original ideas.

Second sample:

The data gathered from the fourth-year primary school learners indicates a positive progress in their problem-solving skills through the Philosophy for Children (P4C) sessions. Learners' abilities to understand and identify the main problem or question were improving step by step during the sessions, rising from an emerging level in the first session to an excellent in the final session. This highlights a growing skill to understand, comprehend, and focus on the main issues discussed during the sessions. While the skills of providing solutions or alternatives being creative in solving problems started were not demonstrated at all; both skills have shown a steady progress by two levels, which reflects the development of critical thinking skills. Learners' ability to think of and consider results has also improved remarkably from not

demonstrated at all to an excellent level, indicating that learners started to assess deeply the potential outcomes of their proposed suggestions and ideas. Furthermore, their ability to assess solutions for fairness and effectiveness advanced from emerging level to good level, showing that learners became more capable of evaluating the quality and implications of their responses and considering multiple points of view.

III. Making- informed decisions

First sample:

Regarding learners' ability of making informed decisions, it has been noticed that their ability to consider different points of view increased remarkably from emerging to a good level, scoring a two-level difference, in which that it reflects an increasing ability to accept different points of view and recognize multiple perspectives. Learners' ability to consider empathy and fairness in their decisions rose from an emerging to an excellent level , similarly their ability to consider different ethical aspects moved from not demonstrated at all in the first session to a good level at the end of the last session, showing a developing sense of moral reasoning and social responsibility. Moreover, learners' ability to explain their decisions increased from an emerging to a good level, and their ability to change opinions based on better reasoning when they are given the chance evolved from not demonstrated at all to an excellent level. Revealing the development of individual abilities and flexibility that are essential qualities for critical thinking skills.

Second sample:

Considering fourth-year primary schools learners' ability of making informed decisions, it has been noticed that they have developed significantly. Learners have improved greatly and developed sensitivity to diverse points of view and ethical reasoning. Initially, learners were unable to consider different perspectives, as this skill was not demonstrated at all, but by the final, session they reached a good level, showing a frequent consideration of alternative views. Similarly, their consideration of empathy and fairness in making decisions progressed from not being demonstrated into a good level, reflecting the natural ability of humans to sympathize with others. As for their ability to understanding the ethical aspects of decision-making, it was not demonstrated and found in the first session, and following the session it has moved to be in a

good stage. Throughout the session learners were also capable of explaining their decisions, starting from not demonstrated and moving to a good level, which reflects growth in both metacognitive abilities and verbal behaviors. Finally, their ability to changing opinions based on stronger reasoning increased significantly from emerging to excellent level, indicating a profound shift in their thinking abilities towards critical mindset.

This stage importance lies in its ability to offer a detailed analysis of each critical thinking aspect and how each one evolved during the sessions. Unlike the general picture offered by global and parameter progression, the meter progression enables the researchers to detect which specific cognitive behaviors and attitudes improved, such as the ability to justify , creativity in problem-solving, and accuracy in decision-making. This level of change does not only emphasize the positive improvement the P4C approach's overall helped in, but also suggest for future educational pedagogies that assist teachers in identifying which area of cognitive process and components of critical thinking need more improvement and which teaching methods worked best.

In summary, the three staged analysis of the data from through global, parameter, and meter progression standards, has enabled for a detailed comprehension of how the P4C approach influenced the development of critical thinking abilities for young learners. The global progression analysis identified a clear positive progress in the holistic performance of learners across the three sessions, indicating a general improvement of cognitive skills. The parameter progression analysis enabled for a more detailed view, revealing which major areas of critical thinking; reasoning, problem-solving, or decision-making has developed the most in each group. Finally, the last step, the meter progression, allows for a clear insight into the internal sub-categories improvement of each skill, highlighting the particular cognitive behaviors that were enhanced across the sessions. Combined together, these stages of analysis reveal the impact of the Philosophy For Children in fostering critical thinking and the essential cognitive process in a structured and a purposeful way. This step by step evaluation, holds a strong foundation for the possible implication and interpretations for the overall impact of the use of this approach, and suggesting for future educational activities that aims at emporing critical thinkers from an early age.

2.7 Discussion :

The findings of the checklists revealed a major positive impact on learners' perception and attitude towards the use P4C sessions, the use of the selected stories from Harry Stottlemeier's Discovery novel, indicate a noticeable improvement in their skills, including asking questions, providing justifications for their reasoning, and reflecting on different point of views. These results indicates that P4C sessions were an effective pedagogical tool to foster critical awareness at an early stage. In this section, the results of every criterion from the analysis will be discussed carefully in relation to the theoretical framework underpinning this study.

The results of this work emphasize clearly the positive influence of Philosophy for Children (P4C) approach on the development of critical thinking abilities for young learners. The structured analysis held out across the global progression, parameter progression, and meter progression, reveals a notable improvement in different critical thinking aspects; including reasoning, problem-solving, and decision-making skills.

At the global progression analysis, both groups experienced a clear and steady rising score across the three sessions. This explains learners' improved ability to shift from basic, non-structured, and random answers to a more meaningful, logical, and systematic answers after engaging in the philosophical discussions. The increasing global scores suggest that the environment P4C created helped in motivating learners to think about their knowledge more critically, seeking for a deeper understanding of different aspects, pushing them to question about new concepts, and interact more confidently with their classmates. The global scale was beneficial in assessing the holistic influence of P4C approach on the development of learners critical thinking abilities and offers an overall review of its results.

The parameter-level analysis stage, offers a detailed analysis for both groups results, although that the progression in reasoning, was gradual, but it reflects a meaningful change in the way learners start to build and support their ideas. For both groups, the scores increased in a stable way during the three sessions, and this was noticed clearly in the last session; with the first group reaching an index of 31 and second group 26. This indicates that learners' ability to justify their opinions, assume connections, and engaging in cognitive activities was gradually building. It was clear that the most influenced area was problem-solving, with a score of 32 for group one

who had witnessed a significantly improvement, and followed by 26 score for the second group. This development in sessions scores state that learners became more familiar with the new strategies of this approach, helping them to approach problems systematically, looking for solutions, and evaluating results. Learners' ability of decision-making had also been strengthened during the three sessions for both groups; with a score of 29 for the first group and 26 for the second. That reflects a growing ability to evaluate judgments, consider results and make choices based on their fairness and clarity. Indicating a strong improvement in learner' skills to solve problems and make decisions, which aligns with Lipman's (2003) claims that P4C helps in reflecting judgment and philosophical inquiry alongside with reasoning abilities. Which was not surprising when the area most influenced was learners' problem-solving, Daniel and Auriac (2011) emphasized that P4C sessions helps in developing metacognitive awareness, that is crucial for a meaningful problem-solving; their results reveals that students who participate in P4C sessions were much more able to reflect on their cognitive processes, evaluate solutions, and choose the appropriate alternatives than others.

As the finally of analysis, the meter progression highlights that specific sub-skills within each skill were motivated after P4C sessions were held out. Such as, in reasoning, learners were most improved in providing justifications for their ideas, and making logical connections. While in problem-solving, their ability to identify and understand problems was strengthened over time, learners become more confident in their explanations and starts to ask relevant questions to the main problem. As for decision-making, learners became confident in assessing alternatives before making a decision, the enhancement of this skill was necessary for learners as it reflects learners' ability to use critical thinking in real-life scenarios. These findings indicates that P4C was successful in fostering practical decision-making for learners, through structured discussions and real-life situations.

The implementation of P4C approach has proven its effectiveness in educational settings. Millett and Tapper (2012) stated that the practice of collaborative philosophical discussions in P4C approach, has shown its effectiveness, as it fosters cognitive development across a structured discussions guided by the teacher, and leading to measurable outcomes in learners' critical thinking abilities. By fostering inquiry, discussions, and cognitive process, the P4C

approach proved to be an effective instrument to foster critical thinking in an observable and meaningful way.

2.8 Limitation of the Study:

Although the insightful information was gained through this study, this study faced some limitations that should be acknowledged. One of the main constraints was the time available for data collection and classroom observation. Due to the academic year and some of the administration restrictions, the number of P4C sessions that were given to me to observe and record was limited. As a result, the study could not detect the long-term impact of P4C sessions on learners' cognitive development. A more extended study time would have allowed for a in-depth understanding of learners' progress over time, and the chance to observe the change in learners' behaviors and habits

Another limitation that faced the study was the language barrier and the lack of resources and materials designed to the Philosophy for Children approach. The philosophical texts were chosen carefully with what aligns with our beliefs and traditions, as well as for the discussion prompts. These discussions were guided with the help of the teacher to help manage the challenges in designing and conducting the sessions effectively. Almost all of the available stories and resources are primarily in English and adapted from various cultural contexts, which may cause an obstacle for the learners to understand the full meaning behind the stories. In some cases, this limitation affected the richness of the philosophical discussions, and this pushed me to use and adopt different materials to ensure the full engagement by the learners. Access to more diverse and context-appropriate resources would likely enhance the experience of P4C and the quality of learners' engagement.

The final limitation was the scope of participants and setting. The study was conducted in one classroom that has a limited number of learners that may affect the generalizability of the findings. The learners was not exposed to critical thinking activities, or even classroom culture and this may influenced the outcomes. For a further research this could addressed by including diverse classrooms, different age groups, or even multiple schools that allows for comparative analysis.

2.9 Recommendation for Further Study:

As the rest research studies, there is always room for improvement; the research provides the following set of recommendations and suggestions. First this research should expand the sample to include a larger sample that helps draw an effective conclusion into the effectiveness of philosophy For children approach on the development of critical thinking skills. Second, this study aimed at investigating the impact on young learners, especially from the age of nine to twelve, further studies can explore the effectiveness of P4C with different age groups, to examine whether this approach holds similar results in different settings and environments.

Ethical Considerations:

Ethical considerations take on great importance as researchers interact with individuals. Thus, it is crucial to ensure ethical awareness throughout the research process. Initially, obtaining administrative clearance and guidance from both institutions and their agreement to proceed with this experiment and providing clear instructions in order to facilitate the process of conducting a study. Also, both the teachers and learners gave their consent to participate and help in the study. In addition, confidentiality was guaranteed to the learners exclusively for the purpose of research.

2.10 Conclusion:

Finally, to conclude with, this chapter aimed to explore the research methodology used fort this study, encompassing a detailed description of the data collection tools used to gather information, and provided an insights into the effectiveness and the impact of the use of P4C sessions for educational purposes. The use of these instruments was carefully selected with what aligns with the research objectives and what ensures the validity and reliability of the main findings. Additionally, the chapter highlighted the main results collected from data. By which the data analysis of the key findings provides an answer for the study questions and proves that the use of P4C sessions contributed and helped to the development of learners' cognitive skills, and enhanced their creativity and critical thinking abilities. This approach helped in fostering an environment where learners felt free to express their ideas, reflect on each other's points of view and engage in a meaningful discussions that are necessary for their future; academic and

personal growth. Finally P4C did not only fostered individuals abilities to engage in philosophical discussions, but also provided learners with the necessary abilities to navigate the surrounding challenges and face the world, preparing them for the future.

GENERAL CONCLUSION

This study aimed at examining the use of Philosophy For Children on the development of critical thinking abilities for Algerian students, and raising awareness about the fact and the importance of being critical thinkers. Moreover, this study aimed at investigating the role and impact of philosophy for children approach on the development of critical thinking skills. This study is divided into two main chapters: theoretical and practical. Added to that, the general introduction and general conclusion. Essentially, the theoretical chapter presented the main key points of critical thinking and Philosophy For Children approach, while the second chapter was about the research methodology adopted in this study, and the context of the study, including data collection tools, data analysis, and the interpretation of the data collected from a structured checklist and observation plus the audio records for the two samples.

Critical thinking is crucial for learners for several reasons. Critical thinking helps learners be more independent on their own. It also enables students to think and process information more critically and effectively. Additionally, it leads learners to acquire effective communication skills which would help them both academically and individually. Critical thinking permits learners to build and discuss arguments following reasoning and logical thinking. Finally, critical thinking enables students to thrive both in their academic life as well in their personal one.

Philosophy For Children approach consists of four main principles that are necessary to the development of critical thinking, starting by encouraging a community of inquiry that aims at encouraging learners to share their ideas and discuss abstract ideas that may seem complex to others to discuss, next is Logical reasoning which is a crucial element of critical thinking and a main component of P4C, logical reasoning helps learners to build their capacity in distinguishing valid arguments from weak or biased reasoning. Another main principle is Metacognition, or "thinking about thinking", P4C sessions aim at developing learners ability to think beyond basic facts, which provides the children with the ability to identify how this process happens and its patterns. Finally, enhancing ethical and social awareness is one of the main concerns of P4c to helps children learn how to take into account various viewpoints through participating in philosophical discussions and moral discussions.

The methods used to gather information in this research are descriptive and analytical methods for data analysis. The analysis of the data obtained from the observation reveals that

the use of P4C approach held a positive impact on the majority of learners , which support the claim that the use of this approach will support the development of critical thinking skills at a young age. The data collected provides the following findings:

The use of this approach enhances' learners ability to think critically and improves their cognitive process specially their reasoning, problem-solving skills, and ability to make informed decisions.

Learners were highly motivated during the sessions and were supporting the use of this teaching method over the traditional teaching approaches that demand rote memorization.

The positive atmosphere prevailing inside the classroom always helps students to improve learning and their critical thinking skills.

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Appendices A: observation checklist

Note: the same checklist was used for both samples.

Observation Checklist for P4C Intervention Session

Sample: 2a1 elementary school.

This checklist is used to track learner's behaviors, dialogue, and group interaction inside the classroom to help identify the dimensions critical thinking in action.

Category	Observed Behaviors / Indicators	✔/ ✗	Notes
Engagement	Learners are highly motivated and participate.		
	Show curiosity about the topic and ask questions		
Dialogue Quality	Learners take turns speaking and show respect.		
	They discuss each others ideas		
Critical Thinking Skills	Learners give reasons for their opinions		
	Learners are able to recognize problems.		
	Make logical connections between ideas		
	Use each others points of view to support theirs.		.
Philosophical Inquiry	Learners discuss "big" or abstract questions (e.g., truth, fairness, knowledge)		
	Attempt to define or question concepts		
Group Collaboration	Encourage and support peers' ideas		
	Work together to build knowledge about new concepts.		

Appendix B: checklist observation 2

Critical Thinking Observation Checklist

Sample: 2a1 elementary school.

This checklist is used to track learner's behaviors, dialogue, and group interaction inside the classroom to help identify the dimensions critical thinking in action.The following rate was followed to assign a score to each session performance

- **Not demonstrated** : 0 point
- **Emerging**: 1 point (Emerging) – Rarely or does not demonstrate this skill.
- **Developing**: 2 points (Developing) – Sometimes demonstrates this skill but inconsistently.
- **Good**: 3 points (Good) – Often demonstrates this skill but with minor gaps
- **Excellent**: 4 points (Excellent) – Consistently demonstrates this skill with depth and clarity.

Category	Criteria	Session 1	Session 2	Session 3
Reasoning	Learners can justify their opinions.			
	Differentiate between fact and opinion.			
	Recognize assumptions or beliefs			
	Makes logical connections			
	Learners can provide examples or evidence for their reasons.			
Problem Solving	Learners are able to understand and identify the main problem or question.			
	provide solutions or alternatives to the problem.			
	Considers results.			
	Beign creative in solving problems			
	Assess solutions for effectiveness or fairness			
Making- informed decisions	Consider different viewpoints			
	Consider empathy and fairness in judgment			
	Consider ethical aspects			
	Explain their decisions			
	Open to changing opinions when given better reasoning.			

Appendix C: the first story

Philosophy for Children (P4C) Story Booklet
Story 1: The Thinking Box (English)

In a quiet classroom, Ms. Lina brought in a big, shiny box. She placed it on the table and said, "This is a thinking box. If you sit near it, your thoughts get louder."

Curious, Ali sat by the box and closed his eyes. He started thinking about lunch… then about how birds fly… then about why people get sad. "Wow," he said. "I'm really thinking!"

Sara sat beside him and said, "I don't feel anything. Maybe I'm not thinking."

"Of course you are," Ali said. "You just said something. Isn't talking thinking?"

Then Ahmed joined them and said, "What if you're only thinking when you're quiet?"

Then Ahmed joined them and said, "What if you're only thinking when you're quiet?"
after that they all stared at the box. Ms. Lina smiled and said, "So… what is thinking, really?"

Discussion Questions:

1. -Who are the main charechters of the story?
2. What was the story about?
3. how do you think the box works ?
4. Can you think without speaking?
5. What happens inside your mind when you are quiet?
6. Were the children really thinking? or they was just imagining it ?
7. what is thinking? and how do we think ?
8. is there a right or a wrong way to think ?

Appendix D: the second story

Story 2:The Red Line

At Bella Elementary School, everyone knew the rule: Never cross the red line on the playground."It's dangerous," the teachers said. But they never explained why.

One day, while playing hide and seck, Sara saw her friend Ali fall on the other side of the red line. He was hurt and crying. "Help me !"Ali called.

Sara looked at the red line. She knew the rule. But she also knew ALI needed help.

She crossed the red line, helped Ali up, and brought him back.

The next day, she got in trouble.

"You broke the rule," the teacher said.

"But I had to," Sara replied

"Rules are rules."Sara asked… why are they put ?

Discussion Questions:

1-Why do you think the rule was put?

2- Can a rule be good for one person but bad for another?

3- Who decides if a rule is fair ? and who puts them?

4-Was what Sara did riht or wrong ?

Appendix E: the third story

Story 3: The Two Suns

During art class, ahmed drew two suns in the sky.

When she saw that sara said "That's wrong, there's only one sun!"

But ahmed replied "Not in my dream, in my dream, there were two suns, and everything was golden." Sara told him . "Dreams aren't real."

Ahmed wondered and asked, "But I felt it. It looked real. Doesn't that make it true… for me?"

After that their teacher, Miss. Salma , joined them, and asked them "Can something be true for one person but not another?"

Sara and Ahmed both looked at their pictures.

Ahmed said "I think we're both right,"

"Can you both be right if you disagree?" Ms. Salma asked.

Discussion Launch Questions:

1. Can dreams be real or true?
2. Can two people have different opinions but both are right truth?
3. How can we decide that something is true?
4. Is believing something enough to make it true?"
5. Is different the same as wrong?
6. "How can we know what's true?"
7. Can two opposite things both be true?
