

Philosophy Education for Children

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Abstract

Fundamentals of all subjects in higher university education were being taught since early childhood. The basic concepts of biology, medicine and physics were mandatorily introduced as natural sciences subjects (*ilmu pengetahuan alam*) in the elementary school curriculum as well as social sciences (*ilmu pengetahuan sosial*), languages and even religion. This early introduction of subjects will make sure that every child are exposed to this particular education to enrich their knowledge and skill. However, philosophy is not formally available in national curriculum until university level. Paradoxically, one of the essences of philosophy is to ensure a human being is capable to perform critical thinking in their later life. This review aims to delineate the urgency and benefit of introducing philosophy in children in either formal or informal form of education. The early introduction of philosophy will nurture and sharpen the process of thinking in children thus will help them to become a wiser adult in the future. This concept might be a consideration of inserting philosophy as one of the subjects in the national curriculum.

Keyword: Philosophy; Children; Philosophy Education.

1. Introduction

Childhood is a period that determines future adulthood. Children shaped so much during their growth and developmental process. Stimulation, education and teaching were eagerly stressed to a child by parents, family, school and society. They are being introduced to physics, mathematics, literature, engineering, art and language since the early years of childhood. In Indonesia, several early-life education institutes introduce many subjects to a child. Numerous amounts of books and electronic applications are also available. Children are also sent to religious-based informal schools to learn about religion.

However, we rarely heard about philosophy in formal education for children. Formal subject of philosophy in Indonesia is mainly introduced in university. Before that, only a minimal amount of philosophy is known by children and adolescents. Does introducing philosophy to children is a wise approach? Will it cause more benefits or harm? Will it save a child? And will it save a nation?

2. Methods

This article review was based on literature review on books, scientific articles and research findings. Searches of available Indonesian and English literature from 1998 to 2020 were conducted utilizing PubMed and google scholar databases. The yield of the search for the articles was performed using several keywords such as "philosophy in children", "philosophy and children", "philosophy impact in children", "critical thinking in children" and "child development". All selected scientific articles and research findings were extracted to the present literature review.

3. Results and Discussion

a. Thinking and cognitive process of a child

The process to gain knowledge whether general knowledge, philosophy or any kind of knowledge is by thinking. Based on this statement, it is important to initially comprehend the thinking process of a child. One of the most widely accepted theories about thinking process is the cognitive developmental theory by Jean Piaget. Piaget observed that children not only absorb knowledge from their surroundings but also able to create ideas. In the developmental cognitive milestones from children to adolescents and adults, Piaget identified four main milestones: sensory-motoric, preoperational, concrete operational and formal operational. Every child should pass each of these steps in order to continue to the next cognitive phase. On each step, they show new intellectuality and new ability to comprehend the world around them. Each milestone

should be carried out on its time frame to ensure proper development. However, the time frame of each child might be different due to several factors. Internal factors which influenced are organic function of a child such as neurological disorder and visual or auditory disability. External factors are parental stimulation, socioeconomics condition and nutritional status.

The first phase of cognitive development of which **sensory-motoric phase** started from birth until 18-24 first months of life. This phase is mainly focusing on motoric development. Child's knowledge is still limited in this phase since it is still mostly based on physical interaction and experience. Children undergo experiment and learning by trial and error method. Language development also started in this phase. Object permanence or a child's ability to know that a thing exists despite no longer been seen is started at 7-9 months old which showing their memory development ability. The second phase named preoperational usually started at 18-24 months old up to 7 years old. During this milestone, children start to use language, memory and imagination. On this step, children focusing on trust, comprehension and expression among past, present and future. The more complex concept such as cause and effect is not formed adequately. Intelligence at this step is intuitive and egocentric and not yet logical. The third step is **concrete operational**. This step happening during the age of 7 to 11 years old. Intellectual development in this phase focusing through logical manipulation and symbolic systematic which is related to concrete object. The thinking process is less egocentric along with increasing conscience to external experiences gained throughout life. The last phase named **formal operational** started from adolescents to adulthood. During this final milestone, someone able to think of various variables in a more systematic way, to formulate a hypothesis and to think in abstract and conceptual (Bormanaki and Khoshhal, 2017).

The learning process in each of these milestones is unique. In sensory-motoric phase, stimulation by environment and surrounding population have a dominant role since formal education is not yet applicable. This is caused by learning process at this phase is only taken by child interaction with his/her environment. Learning process through teacher-student concept will be able to perform since preoperational phase. This is also an important phase when children gained experiences as a foundation to logical thinking in future life. Education on this phase is a baseline for further education. Teachers at this phase should start to teach children to understand problems which need a logical and analytical approach. At last, on the formal operational phase, the learning process is called cognitive loading. This process introduces children with hypothetical thinking and massive exploration. The learning to achieve this should be implemented by discussion (Joubish and Khurram, 2011)

b. History of philosophy for children

Philosophy for Children (P4C) was the first child-oriented philosophy program created in 1972 by Matthew Lipman, Ann Sharp and colleagues in the Institute for the Advancement of Philosophy for Children (IAPC) in Montclair University, New Jersey, USA. It was initially started from a deep concern about the educational situation at that time. They concluded that students at that time were lack of ability to perform critical thinking and informal logic which should be very helpful to "think for themselves" in order to achieve good living in society. Philosophy for Children is a philosophy curriculum for children aged 3-16 years old. This curriculum aims to introduce children about critical thinking by giving them the experience to create reasoning about real or fictional several problems.

The P4C program was designed as philosophy-themed stories to stimulate the discussion process. Stories are child friendly using children's names such as Elfie, Kio, Gus, Pixie, Harry, Lisa, Suki and so on. Student or teacher will read some parts of stories and student will be asked to stated their opinion about the story. Based on Lipman, discussion will be the best way to the exercise of critical thinking. Compared to preexisting education system, Lipman stated that the conventional system was unable to stimulate children to think, to create personal judgment, to have their own point of view and to be proud of themselves for doing so. To become a reflective adult, he/she should become a reflective child, and this was not gained by the conventional education system.

Philosophy education has been implemented in 50 countries with supplementary materials translated into 20 different languages. The P4C program can be initiated since early childhood whenever they were already able to create question and do thinking process from time to time.

Philosophy have a clear cognitive objective of which induce our mind to work. This is achieved by challenges, basic thinking and structural interaction. Aside from cognitive, philosophy

in children also teach children about decision making. The pinnacle of this program is to make a child think for themselves and not only copied other people's opinions, a situation which happening right now including in Indonesian society where someone's opinion is really easy to manipulate (Gaedi, 2017).

Nowadays, philosophy learning process includes many sources such as poetry, news, games, music, pictures, documentaries and other references. Mainly there are two approaches in philosophy teaching to children. First, an integrated approach which combines various mental status, cognitive ability and other sources in one class. Based on this approach, all elements related to P4C curriculum is combined to achieve goal of teaching. The second approach termed philosophical approach which is derived from a philosophy point of view, implicit or explicit. This is achieved by narrative, dialog, playing or activity approach.

c. Benefit of Philosophy Teaching to Children

Only 35% of all high school graduates in developed countries who having the formal operational capacity. Philosophy teaching for children is designed to solve this gap. Some previous studies in several countries tried to examine philosophy benefits in several aspects. Gorard *et al* (2015) and Karadag *et al* (2018) performed a summarized review that assesses the impact of philosophy in children (Gorard, Siddiqui and See, 2016; Karadag and Demirtas, 2018) Initial evaluation of P4C performed by Lipman and colleagues themselves. The study use pre- and post-experimental design involving 40 students from two schools in Montclair, New Jersey. Twenty students underwent intervention and twenty others were served as control group. Evaluation report showed a significant increase of logical reasoning and reading comprehension in intervention group (Topping and Trickey, 2014).

Dyfed County Council studied 5-year-old students in 18 different schools during 1994. Curriculum class of P4C was implemented to 229 children and evaluated using teacher's interview, reading comprehension test, British Abilities Scale which assesses word recognition ability and Matrices test which assess non-verbal reasoning. The result showed that the experimental group showed better performance in thinking, listening and self-confidence compared to those in control group.

The effect of philosophy in preschool children less than 2 years old was also studied by Sugirborsdottir (1998). He showed that children who were exposed to philosophy had a better communication skill, self-understanding, better opinion and a better acknowledgment about other people's opinion (Sugirborsdottir, 1998).

Trickey and Topping (2014) conducted a further impact of 2-year-philosophy-teaching in 200 students. They showed significant differences in language capability and critical thinking (Topping and Trickey, 2014). Increment of the ability to perform critical thinking was also found by Benade (2011) in fifth grade elementary school after students were taught about P4C for 16 weeks (Benade, 2011).

A more longitudinal study about the impact of P4C was performed in Madrid by Colom *et al* (2014). They did an observational cohort study in two private schools for 20 years duration of study. A total of 455 children aged 6 years old to 18 years old were received P4C program and being compared with 321 other children as control. The outcome was studied at 8 years old, 11-12 years old and 16 years old. The early result stated a positive impact on general cognitive ability with other upcoming results are still on progress (Colom *et al.*, 2014).

Recently, Karadag *et al* (2018) also showed a positive correlation between philosophy teaching in children with the ability to construct question and critical cognitive. In a qualitative approach using interview, teachers stated that after curriculum implementation, students were becoming better at presenting ideas, developing empathy, creating question, making comparison among thoughts and considering other people's opinion, all these qualities which are the indicators of critical thinking (Karadag and Demirtas, 2018). In short, P4C is educationally significant in at least three areas which are reading-mathematics, reasoning and academic readiness (Colom *et al.*, 2014).

e. Philosophy lessons experience in several countries

Philosophy teaching to children has been practiced in several countries. The P4C program is the most popular technique to teach philosophy in more than 60 countries with its own characteristics. In the United Kingdom, the Society for the Advancement of Philosophical Enquiry and Reflection in Education (SAPERRE) was created in 1992. It promotes P4C in schools and also gives training to teachers. In Germany, philosophy subject was offered to the student along with religion subject, but students without official religion can take ethics as an exchange for religion subject. Other states in Germany consider philosophy as a part of art class and a teaching process so philosophy is not an independent subject but a method of teaching for other subjects (Wattimena, 2016).

Philosophy program for children in Austria is managed by The Austrian Center of Philosophy with Children (ACPC) since 1985. It has been promoting research such as Kids Right which aims children to understand their basic rights to make functional democracy. Democracy in this concept means freedom of speech as a basic right in democratic participation to achieve open and pluralistic society. This was achieved using philosophy teaching since early years of life.

In Southeast Asia, philosophy teaching was taught in Singapore and the Philippines. Based on the evaluation of philosophy program in Singapore, P4C increase student's grade of mathematics, language and science, although not significantly increase examination score. In the Philippines, philosophy started in elementary school in 2010 and generally implemented since 2017 when senior high school applied philosophy as one of the general subjects which focusing on humanity, ethics and logics (Marquez, 2017)

f. Philosophy for children in Indonesia

In the meantime, Indonesia is still struggling to deliver education to its citizen. Primary and secondary education in Indonesia is mandatory and consist of 12 years of education starting from elementary to senior high school. Primary subjects include religion, civics, mathematics, natural sciences, social sciences, art and sport. In 2013, the government revised the national curriculum into education which emphasized character building.

Until recently, official philosophy teaching only taught at university level. There was no independent philosophy subject or statement that use philosophy as a basis of education or teaching in Indonesia. Philosophy for children or adolescents was not mentioned clearly in both formal or informal primary and secondary levels of education.

Based on the World Bank report in 2018, as high as 55% of Indonesian adults are functionally illiterate despite holding an educational degree. The gap with other Southeast Asian countries was so wide with only 14% of Vietnamese are classified as functionally illiterate. The critical thinking ability of Indonesian students was also low. This concept was reflected by the PISA score (Programme for International Student Assessment). Among 65 countries, Indonesia's science literacy score was on 64th rank among 65 countries. Indonesian students were only able to answer level 1 and 2 (range of level is 1 with maximum 6). The questions were contextual question thus it showed Indonesian students' ability to perform critical thinking, logic and problem solving was insufficient

In the globalization era, critical thinking is important in various aspects. First, critical thinking is beneficial in an academic career. Current education focusing on the applicability of education so theoretical basis should be combined with real world experience. The ability to do critical thinking is a bridge between those two, even since elementary school. Second, critical thinking is useful for daily living. Since infancy, human has been facing problems. Critical thinking is a tool to solve a problem using a multidimensional approach. Third, every human, especially children are prone to believe false information or bias, moreover in the era of social media. The acceptance of false information and process this false information into belief will make someone act falsely. Using the point of view of pediatric developmental studies, children and adolescent are both vulnerable groups because they are curious but also lack of integrity. They use gadgets and expose with a tremendous amount of information every day. The ability to think, to filter and to accept or withdraw those information can be achieved by teaching them philosophy.

Based on previously mentioned reasons, philosophy may be beneficial since early child. Along with other knowledge, philosophy is taking part to design the shape, content and pattern of thinking of a child and adolescents. The teaching of philosophy itself should be adjusted based on their age according to Piaget's developmental theory. Philosophy teaching, whether informal or formal, will be best to introduce since concrete operational phase when a child is already able

to think for themselves. In short, the aims of the early lessons of philosophy is to make an outcome of which a child who able to perform critical thinking, to construct good questions and to answer some fundamental questions in their life. A generation of children who think wisely will create a generation of adolescents and adult who think wisely as well. Children is the biggest investment of a nation. Therefore they should be well prepared in terms of thinking.

g. Philosophy for children from pediatrics perspective

From the pediatrics and developmental science perspective, learning from early age is important because of its relationship with brain plasticity. Brain is not a static, fixed and unalterable bundle of neurons. Current theories and research prove that brain is flexible and reactive to experiences. This theory is named neuroplasticity.

There are seven stages of brain development: cell birth, cell migration, cell differentiation, cell maturation, synaptogenesis, cell death with synaptic pruning and myelogenesis. This process is influenced by several factors such as sensory-motor experience, psychoactive drugs, gonadal hormones, parent-child relationships, peer relationships, stress, intestinal flora and diet. Brain development process is massively happening in childhood especially in the first 1000 days after conception which gives rise to a term called "The first 1000 days of life or the golden age of development". During this period, brain is sensitive to internal factor which mainly genetics and external factors such as insult to the brain, nutrition and external stimulation. Goleman (2006) stated that repeated experiences sculpt the shape, size and number of neurons (cells of the brain) and their synaptic connections, which is a description of the learning process (Goleman, 2006). This neuroplasticity of the brain is the explanation of why someone who learns music or a particular sport since a young age will be more successful than someone who learns similar things in later life. The same hypothesis involving philosophy is based on this statement. Children who exposed to learn about thinking, making question, creating discussion and considering other people's opinions will create a better synaptic which makes someone is better at thinking in his/her later life. This is why we exposed children to various things and try to stimulate them since early years of life. Thinking is the fundamental of all actions of a human being. Teaching children the way to think properly by philosophy lessons is an effort to make them living the good life.

4. Conclusion

Consideration of philosophy teaching in formal education might be started by implementation and adaptation of the philosophy for children (P4C) in the Indonesian classroom. The lessons should be adjusted for their age group. Most of the current education curriculum in Indonesia is learning about knowledge which based on facts (mathematics, science, history or else). The implementation of philosophy subject will teach them to think and to make discussion about current social problems which sometimes do not have single definite true answer unlike subjects like science or mathematics which have a clear and defined answer. Philosophy will also teach something that religion class does not have. In Indonesia, religion subject is mandatory in every school and every student will learn a religion of their own so they will have a limited experience about seeing other people's perspective. However, with philosophy, they will learn that there are many opinions to a single question or problem. This will might help them to become a more tolerant adolescent and adult in the future.

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