Early Childhood Development of Integrative Holistic Design in Non-Formal Early Childhood

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DOI 10.15294/ijeces.v4i1.9456

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Abstract
The aim of this study is to: (1) make the early childhood development design of integrative holistic in non-formal early childhood (2) provide appropriate services for integrative holistic to early childhood in the womb until six years old (3) How can early childhood development of holistic integrative design can provide services ranging from health, nutrition, parenting and education for early childhood, (4) How to integrate BKB, early childhood post, and appropriate HC thus it was born the integrative holistic assessment models. The methodology of this research was Research and Development of an option because it has a more complex process in stages to accommodate the diverse interests of this research. The hypothesis in this study was: (1) an integrative holistic design applied in a non-formal early childhood, in this case of integrated ECH post with BKB and HC is highly effective as compared to early childhood services are only performed by itself. (2) services that can be provided in the early childhood education can be an integrative holistic health services ranging from prenatal care until after delivery, healthy children aged 0-6 years, knowledge of nutrition during pregnancy to nutrition for a growing child development, and education for children aged 0-6 years as the appropriate stimulation for children aged 0-6 years, (3) This integrative holistic early childhood education design can be integrated starting from registration, weighing, growth monitoring, nutrition services, and education and health services for early childhood, (4) The results of an increase in parental knowledge about nutrition issues, health and education can be seen from the results of the pre-tests and the post-tests conducted, which showed that the score of the output means pretest = 11.63 less than the post-test means = 20.25. So the average of the posttest score was better than the pretest score of 16.14%.

How to cite
INTRODUCTION

Early childhood is a special figure. They are individuals who are undergoing a process of rapid growth and development and are fundamental to the next life. They have their own world and characteristics far from adults. Children are always active, dynamic, enthusiastic, and curious about what is seen and heard, as if never stop learning.

The roles and governments responsibilities to nurture, education and early childhood development in Indonesia has been manifested in various forms of policies and agreements both national and international scope: (1) Nationally, policy studies parenting, education and early childhood development in Indonesia has a legal basis as stated in the UUD 1945; UU No. 20 Tahun 2003 on the national education system whereas (2) internationally, attention to early childhood education more seriously proclaimed: Education for all in Jomtien, Thailand in 1990 (Convention on the Right of the Child); (3) Declaration of Dakar in Senegal (2000) with the theme of: "Education for all Education"; (4) World of education meeting in New York (2002), which has been agreed (World fit for children) with the introduction of healthy life for the child; (5) meeting in Cairo Egypt (2003) with the main agenda of care issues and the development of early childhood and (6) the ASEAN meeting in Jakarta (2004) in the form of a seminar with the theme "The 3rd ASEAN Regional Seminar for Project on Early Childhood Development (ECCD) "which deals with advocacy and social mobility of the ECCD in the global context (ECE Bulletin: 2004:20).

Various forms and agreements policy both nationally and internationally over the Indonesian government encouraged to develop programs related to parenting and early childhood development. As a tangible manifestation of the government's commitment to the basic policy of the enactment of the National Program for children in Indonesia to 2015, whose contents are as follows: 1) develop healthy child, grow and develop optimally through community empowerment, increased of cooperation sector of environmental improvement efforts to improve the quality and range health, increased resources, finance and health management, as well as the development of science and technology; 2) realize the smart kid cheerful and noble through effort to expand the accessibility, quality improvement and education efficiency and community participation; 3) realize the protection and participation of children through improving the social and legal institutions quality, equity research and research outreach services, especially for children who are in a state of emergency in national and international networks (Fasli Jalal-editor, 2005:16). This means that the education given in early childhood is an environmental intervention to optimize the growth and development of children. The quality of human nutrition views expressed in the form of intellectual abilities and health improvement that can be measured with the realization of the physical capabilities and productivity of labor. It is intended by the earlier and sustainable nutrition and health conducted the establishment of quality the faster generation materialized. The results of the study on growth data toddlers in Pakistan, Sweden, and Hong Kong in the villages and towns conducted by Kalberg, concluded that growth retardation is due to the environment (nutrition, infection, and maternal interaction quality). Growth disturbance that causes horizontal growth (growth disorders) is closely related to two factors directly, namely: 1) nutrient intake and 2) infection, two factors are directly influenced by the availability of food, parenting and health care.

Nutrition factors which may be given by a parent or caregiver will determine the nutritional status of children. Malnutrition at this time, in addition to causing physical growth retardation, can also interfere with a child's development.

Treatment and care for optimal child growth stimulation are done through physical, intellectual, mental, social, emotional and moral spiritual balanced. The role of the mother and other family members in the care and upbringing of children is very important, especially a new baby to he goes to school.

Gunarsa (2003:61-63) in the family child care environment that is visible from the pattern of care provided is the entire interaction between subject and object in the form of guidance, direction and supervision of the objects activities that take place on a regular basis so as to form a pattern and an effort directed to change behavior in accordance with the wishes of the educator or caregiver. Good parenting and directed to encourage optimal child development.

Parenting environment is often conceptualized as the interaction between the two dimensions of parental behavior. The first dimension is about the emotional connection between child and parents. This dimension has a distribution ranging from acceptance responsive and parents focus on their own needs and desires. The second dimension is the ways parents in controlling their children's behavior, including parental controls
restrictive, permissive or absolutely no restrictions on children's behavior.

There is six characteristics needed to do well care: (1) an affectionate relationship, (2) viscosity, (3) the relationship is not severed, (4) stimulation interactions, (5) relationship with one person, (6) do child care in their own homes.

Fulfillment of the rights of young children need to be done holistically integrated, so it is expected a child grows and develops optimally in accordance with the stages of development and its potential to be a high-quality person.

By considering many factors that determine the quality of early childhood development, then their rights to grow and develop optimally are met in a holistic and integrative organized. Nowadays there have been various activities in the community that became the forerunner of early childhood development of holistic-integrative, among others: health care through integrated health; early childhood education services, preschool, kindergarten, RA, TPA, and other similar services; and parenting education through Bina Keluarga Balita (BKB).

Organizers early childhood development services are generally faced with the lack of quality management professionals, the limited number of the providers, distribution and power quality, and service facilities are inadequate. These conditions, among others, reflected in the service who do not meet the essential needs of all child aspects, as well as services that are not yet integrated. Besides a better understanding of stakeholders and providers and policy makers of the importance of early childhood development of holistic-integrative still limited.

To overcome these problems is necessary to study early childhood development model that touches all the needs of child development, systematically, and involving all actors of early childhood development, a research on integrative holistic early childhood need to begin in order to achieve educational early childhood completely and thoroughly, organizing Integrative Holistic early childhood service.

The development is a process of long-term life of the growth and changes that led to the maturity of a child, who will be experienced rapidly in childhood and adult. The growth of a child's genetic and life experiences will determine their development. Genes that there will be limitations to assemble a child’s growth in height and intelligence, as well as a proper environment, will help children to realize that potential because every child has different genes and grown in different environments. Not surprisingly, if there is difference among them.

Developments in the narrow sense can be called as a maturation process functions of non-physical or quantitative and qualitative change as a process of change and sequential progression is supported by environmental factors and learning processes within a specific time to adult. According to Meyrs, child development is an evolution process. Children learn at a more complex level in moving, thinking, feeling and relating to others. If during the change process children are getting enough stimulation from the outside, then the child will be able to develop optimally at more complex levels that would be experienced, both in terms of thinking, feeling and relating to others.

Various external factors influence of the development of early childhood, since conception until late preschool. The family condition, parents and caregivers will form a pattern of child development since they were born. With the increasing number of their sociality with the environment, including outdoors, parenting and environmental conditions will affect the development of school-age children up ahead.

Early childhood is the critical years to speculate explore, play and be creative without the fear of failing to test ideas, learn to solve problems, expand confidence in adult and build relationships with people in the same age. The growth and development of children from infancy in a mother’s womb until the age of about 6 years will determine the degree of health, intelligence, emotional and spiritual maturity, and human productivity at a later stage.

Based on technical observations, the critical period that began forming abilities of children from birth until the child is two years old biological developmental period when children are at a very prime stage for developing neural structures or skills that are affected by a very appropriate stimulation. Child’s brain grows and develops because of interaction with the environment and learns to function in their environment. Less of necessary brain stimulation will result in the child’s brain shrinks with children compared with normal children are getting enough stimulation and on time. This will interfere with the natural growth of a child’s brain. Therefore, the relationship between children and parents or other caregivers affects the development of children brain. If the relationship between children and parents and other caregivers are positive, the child’s cognitive structure learning to manage emotions and behavior, and vice versa. Therefore emotional attachment between children and parents or caregivers is the foundation for the emo-
tional development of children and to learn other things in his life.

Referring to the ecology of human development and human brain development theory, brain development is a continuous process. Thus, the initiative for early childhood development must be an ongoing effort conducted in line with the development of the human brain. To achieve optimal brain development, early childhood development should be based on the quality of interaction that is tailored to the child's stage of growth and development.

Therefore, carrier services early childhood holistic should pay attention to the principles of integrative as follows: The first years of the life of a child interact with parents, siblings, caregivers, educators, school, and peers are an important period in the development of early childhood. The quality of these interactions is indispensable in providing early stimulation for babies to stimulate brain growth, meet the nutritional needs of children, provide proper parenting at home and at school, as well as instill the values of glorious and children character. The childhood development programs do earlier will be better for child development.

Environment affects child development include First, the presence of one or more adults who love children unconditionally. Second, adults should spend the time to do activities with children both inside and outside the home environment. If both these conditions are not met, then the child's ecological environment will collapse. Thus, it needs to do an effort in order to become the whole family so it can introduce and educate the values and norms of the sublime in children.

"Bridge" between the social institutions outside the home from micro children and other environmental systems such as the bridge between home and school is essential for children's development. It required synergy between the actors that can simultaneously provide services such as maintenance and care is best for the children so that their potential can develop optimally so that they will be a quality person to live in his era.

The environment is also very important because of anything was done or said by adults who have contact with children influence of the development of children and even change the child's development into a negative.

Involvement of the government in supporting the provision of early childhood services that meet all the needs and dimensions of early childhood development is urgent and needs to be done either through an increase in government investment or the public.

The responsibility of raising and caring for young children remains a major task for the parents. The thing to do is giving pro-government for early childhood growth and development, among others, by empowering parents so that they better understand, care and raise a child properly and optimally, and supporting the communities that they can also play a role in providing for full of the environment protection and children.

Not only a public has the obligation to support intervention programs for early childhood, but also, the private sector is expected to play a role in giving enhancing advocacy and influence of an investment in early childhood development.

As for the carrier services of holistic early childhood can be realized through (1) Completeness of the types of services that can meet the essential needs of the child as a whole in accordance segmentation of aged children ranging from fetal life to 6 years. (2) Service quality on any type of service activities undertaken includes aspects of health and nutrition, education, care and protection of children. The completeness of the types of services that can meet the needs of the whole child and the child's age appropriate segmentation can be started from the fetus to the womb, followed by care and protection and care, guidance, and education until 6 years. (3) By the time children 0-2 years a health and nutrition aspects is the main requirements that optimal brain growth and development; at the same time, the intensity and care quality plays an important role in supporting the development of sensory motor, especially the senses of sight and hearing as well as social-emotional development, language, psychomotor, and power child affection. At this time, the family role, especially the mother and the closest is dominant; as well as the role of a substitute caregiver if the parents are unable. (4) In the next stage which is 3-4 years old, children's sensory-motor development continues despite the decrease in intensity. At this time the power of affection that includes children's emotional development, social and moral capital will support cognitive development and also very influential in the formation of character, began to flourish. By the time the child feel safe physically and emotionally they will actively learn and socialize with their environment. Family and - if necessary - must be able to provide a substitute for the role of care appropriate to the needs of the child. (5) Geared to support provisioning cognitive abilities of children; develop the attitudes, behavior, and social relationships; provide a sense of security, and balancing independence so that the child rea-
**Program Objectives**

1. Provide models of early childhood services to the general public until countryside.
2. Provide a vehicle for educational play for children early age who are not served other early childhood.

Thus, the objective of this research was to make the design of holistic and integrated into early childhood education.

**RESEARCH METHOD**

The research methodology is Research and Development an option because it has a more complex process in stages to accommodate the diverse interests of the research (Borg & Gall & 1989: 784-785). Learning is a product developed instruction related to teaching technology that requires justification in the learning process.

There are ten steps of this research, based on the method developed by the Research and Development Borg and Gall as follows.
According to Borg and Gall suggests limiting it into a small-scale including research and development step. This stage is as follows:

**First Stage**
Research and information collecting. In this research study related to the integration of information about holistic early childhood in ECH and also any additional information related to holistic integrative in early childhood, then the theoretical literature review concerning the nature of child development, learning, health and nutrition and other related material.

**Second Stage**
Planning, which in this research conducted a series of studies literature and theory (Studies literature), discussions with experts such as psychologists and doctors, then get the findings, consensus, propositions and generalizations to understand the materials suitable integrative holistic ECD gave in the early childhood area, focus group discussions with experts such us experts in early childhood and pediatricians learning. It affects the volume of written material.

**Third Stage**
Developing learning (preliminary develop a form of product) in this study is related to the design of the teaching-learning process in material preparation, evaluation process and disseminate a discussion.

**Fourth Stage**
Previously, it has done limited testing, was developed measuring instrument in accordance with the learning development, calibrated and then limited field trials (preliminary field testing) to justify the learning developed in this study presented combined with the action research method using only two rounds cycle, i.e. through the start-up phase (initiation), the discovery phase (detection), and phase decision (judgment).

**Fifth Stage**
In the fifth stage of revising (main product revision) conduct focus group interviews consisting of early childhood educators and parents of students testing sites, after the final learning then trials the effectiveness of learning done one round in early childhood area.

**Sixth Phase**
Wide diffusion in this study does not macro socialization because of limited funds and time. While Borg and Gall in Semiawan develop Research and Development into three cycles, namely: (1) assessment cycle, (2) evaluation cycle and (3) the appropriate stages of the development cycle through methods Research and Development in the area mapping and step- measures such activities contained in the following chart: (Semiawan: 2007 181-187).

### RESULTS AND DISCUSSION

**Holistic and Integrative Research Result**
Integrative Holistic Development is a reference to the ecology of human development and the human brain development theory, brain development is a continuous process. Thus, the initiative for early childhood development must be an ongoing effort conducted in line with the development of the human brain. To achieve optimal brain development, early childhood development should be based on the quality of interaction that is tailored to the child’s stage of growth and development.

As for the carrier services of holistic early
childhood can be realized through:

(1) Completeness of the types of services that can meet the essential needs of the child as a whole in accordance segmentation of aged children ranging from fetal life to 6 years.

(2) Service quality on any type of service activities undertaken includes aspects of health and nutrition, education, care and protection of children.

The completeness of the types of services that can meet the needs of the whole child and the child’s age appropriate segmentation can be started from the fetus to the womb, followed by care and protection care, guidance, and education until the age of 6 years.

Integrative Holistic Design In Non-Formal early childhood

Steps into ten stages of this research, based on the method developed of the Research and Development by Borg and Gall with the translation as follows:

First Stage

Planning, which is in this research has conducted a series of studies literature and theory (Studies Literature), discussions with experts such as psychologist and doctor. At this second stage is the findings obtained in applying integrative holistic ECD in Mutiara ECD at Lamper Tengah area is not going well it can be seen from the mother’s knowledge about the application of good nutrition for children as well as the manufacturer of healthy foods is minimal yet another plus children in Mutiara ECD, this many malnourished children and easy child’s disease. Parental background in ECD is mostly factory workers, street vendors, and scavengers that do not understand the importance of healthy meals for children. The results of a survey conducted to their neighborhood in the Lamper Lor village was found a lot of them are lack of knowledge about nutrition for young children, it can be seen from most of the mothers here do not give milk to their children, do not know how to process healthy and nutritious food for the children so that the children in the Lamper Lor village have many malnourished and how to educate children used violence.

In addition, to his activities in IHC is not going well, it can be seen from the dormancy of BKB in Lamper Lor village. IHC run itself without BKB engage in any activities, so that growth monitoring activities in weighing, eating green beans, and go home. Parents cannot get information about health, nutrition and education they need.

Second Stage

Developing learning (preliminary develop a form of product) in this study is related to the preparation of design teaching learning the process in material, process and disseminate evaluation discussion with the form.

At this stage made Integrative Holistic design of early childhood development in accordance with the ECD, which is expected to facilitate the design of the parents in the early childhood Zip get information about integrative holistic ECD began Nutrition, health, and proper care and learning for children.

Third Stage

Then, it was conducted limited field trials (preliminary field testing) to justify the development of integrative holistic researched developed are combined with action research method by using two rounds of the cycle, namely through the start-up phase (initiation), the discovery phase ( detection), and the phases of the decision (judgment).

At this stage, the actions carried out in two cycles, it is because in this study using the methods of action research by using two cycles, i.e. the beginning phases (initiation) counseling conducted on the application of “integrative holistic ECD” held counseling on nutrition, health, education as well as proper care for early childhood. In this phase, a lot of parents who are not satisfied with the information needed, it can be seen from their interest in the existing extension. But there are some parents who are less able to ask for these extension activities for less comfortable, embarrassment and many other causes. At the beginning of the meeting, the parents are given information about the importance of nutrition for early childhood, how to maintain the health of young children from the womb until the age of 6 years, how the right care and education for young children. Participants were present around 76 people, once their enthusiasm to learn about integrative holistic early childhood.

In the discovery phase found that a lot of parents who do not understand about nutrition for children ranging from the child in the womb until birth, especially nutrition for pregnant women, how to maintain the health of the child because of the findings of so many children who suffer from certain diseases without their parents know how to handle it, other than that the kids in this neighborhood are many who suffer from malnutrition. In the field of child care, and edu-
Education is also experiencing problems with the care for older people only use force in educating children.

The decision phase of trying to implement a holistic integrative design appropriate for activities where education, nutrition, health, and child care can be done in one day with a design that has been made above, but each activity will be compiled what activities to do such as providing healthy foods, vitamin A, knowledge of child development, etc. This will be very useful for parents as well as to overcome the problems experienced by the parents in the Lamper Lor village.

Fourth Stage

In the fifth stage of revising (the main product revision) was conducted focus on group interviews consisting of early childhood educators and parents of students testing sites after the final learning trial of the effectiveness of learning done one round in early childhood area.

In limited testing began with the implementation of the integrative holistic design that has been created.

In the design is set up starting from the registration table I is performed by IHC, BKB, and early childhood cadres, parents who are interested in participating in this integration is pretty much nearly 74 people. Activity is carried out starting at 15:00 to 18:00 so many parents, early childhood teachers who are interested in holistic integration activities.

In the second table, weighing is done by a cadre of neighborhood health center to find out the weight of each child. After the BKB cadre will see if it is in accordance with his height, here BKB role to monitor the child’s development is already in line with the age or still less.

In the third table, KMS recording has done by BKB cadres, the recording is important to know the child’s development in the amount of time so that the recording would be medical records to take appropriate action in accordance with his age.

At the fourth table, made the provision of information about nutrition for early childhood, in this table the parents can ask about nutrition for children. Most of the parents do not understand the ways of processing food for the children so many children who suffer from malnutrition. The indications are that thin child, no appetite, listlessness in the following study in school. In this fourth tables can also get information about child development and how to give education appropriate to his age.

In the fifth table, parents can ask about how the health of the child from the child’s illness and how to overcome them. Additionally, it will be explained as well-child care from the womb until 6 years. In this table, it was found that the children in the Lamper Lor village suffer from certain diseases but their parents do not know how to overcome it.

![Diagram of BKB Integrated and ECH Model in IHC](image)

**Picture 3. BKB Integrated and ECH Model in IHC**
Sixth Phase
Wide diffusion in this study does not macro socialization because of limited funds and time.

Research Data of Holistic Integrative Design
To determine the ability of the resulting increase in knowledge of nutrition, health and education conducted pre-test and post-test in which the results are as follows:
With criteria H0 if the score of sig in the table Test paired samples higher than 5%.
Look at the output sig = 0.000 = 0% <5%, then H0 is rejected and, in other words, H1 has accepted means that the average score of the pre-test and post-test are both significantly different.

Seen that the score of the output means pretest = 11.63 less than the posttest means = 20.25. So the average post-test scores better than the pre-test. To more clearly be seen in the following graph.

![Graph](image)

Picture 4. Pre-Test and Post-test
From the graph above it can be concluded that the design of holistic integrative ability of parents about nutrition knowledge, health, education and child in holistic integrative further improved compared to using IHC itself is not integrated with BKB and ECD.

Discussion of Integrative Holistic ECD Design
Ecological theory of human development (Bronfenbrenner, 1979) describes the development of children who are affected by a complex system of interactions with the surrounding environment includes multiple levels of interaction between interconnected inside and outside the home, school and neighbors of everyday life that occur within the old. This interaction is the motor or drives development of the child is the center of the circle, surrounded by a variety of systems interaction that occurs from microsystem, mesosystem, exo-systems and macro system.

Referring to the development of ecological theory and the theory of the human brain, human brain development is an ongoing process. Therefore, efforts to achieve optimum brain development should be conducted continuously how to conduct early childhood services are comprehensive and integrated. Integrated services should also be designed in such a way in order to reach optimum brain development in children.

The design of holistic and integrative early childhood can be done in an integrated early childhood by IHC and BKB. As has been implemented in early childhood Mutiaran ECH at Lor Lamper village in South Semarang. By implementing a holistic integrative design like this will allow parents to obtain information and services covering health, nutrition, parenting and early childhood education as a whole. Observations showed that the parents also do not be shy to ask about their child's problems and discuss what action they need to do to resolve the problem of their child's good health, nutrition, to get the best education for their children.

To Research and Development Design of Integrative Holistic this can only be done to the extent limited trial. For the six stages cannot be done because of limited funds and time.

CONCLUSION
The conclusions of this research are an integrative holistic design that is applied in a non-formal early childhood. It can be seen from the public interest in this case in particular parents to come to BKB integration IHC and ECD to know about early childhood services, that can be provided in early childhood education can be an integrative holistic health services ranging from prenatal care until after delivery, the health of children 0-6 years, knowledge of nutrition during pregnancy to nutrition for the growing child development, and education for children 0-6 years as the appropriate stimulation for children 0-6 years. This integrative holistic ECD designs can be integrated starting from registration, weighing, growth monitoring, nutrition services, and education and health services for early childhood.

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