



## **OPTIMIZING DEVELOPMENTAL EDUCATION EARLY CHILDHOOD COGNITIVE THROUGH GAME EDUCATIVE**

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### **Abstract:**

Development cognitive is aspect important in the process of growing flower child age early , because become base for ability think logical , solving problems , and adapt to environment learning at the stage next . Research This aim For optimize education development cognitive child age early through implementation game educationally designed in accordance with stage development and characteristics Study child . Approach game educative chosen Because capable give experience active , fun and meaningful learning for children . Research This use method descriptive qualitative with approach studies fields in several Early Childhood Education and Kindergarten institutions , including Nurul Qur'an Kindergarten in Stabat. Data collected through observation , interviews , and documentation to activity learning that uses game educational . Data analysis was carried out with the Miles and Huberman model covering data reduction , data presentation , and data extraction conclusion . Research results show that game educative can increase aspects cognitive child age early , such as ability grouping , recognizing pattern , counting simple , remembering , and develop language and creativity think . The teacher plays a role important in design and facilitate appropriate game with objective learning as well as give appropriate stimulation . In addition , parental involvement in support activity play children at home strengthen results learning in schools . Research This recommend game model development educative contextual based environment local and cultural child For optimize stimulation cognitive . Optimization education child age early through game educative No only increase ability think children , but also form character independent , creative , and collaborative learning.

**Keywords:** *Child Age Early , Development Cognitive , Games Educational, Learning Based Play , Stimulation Cognitive.*

### **INTRODUCTION**

Period age early childhood (0–6 years ) is a sensitive period for development cognitive children , where the ability thinking , memory , language , and ability solution problem growing very fast . Appropriate stimulation at this time play a role important in form base ability academic and social emotional in

the future . However , in practice , it is still there is challenge in organization education child age early childhood education (PAUD) that is capable optimally stimulate development cognitive through a fun , contextual , and based approach activity child .

One of approach that gets attention wide is learning based games (play-based learning). Game educative No just as means recreation , but is a learning medium that allows child explore , hypothesize , solve problems , and develop language and concepts beginning mathematics and science . Development theory cognitive from Piaget emphasized that child build knowledge through interaction active with environment and objects , whereas Vygotsky's perspective emphasizes role context social and scaffolding in optimize development ability thinking (Piaget, 1952; Vygotsky, 1978). Findings study contemporary also supports effectiveness game structured and semi- structured in increase skills cognitive pre-school , including ability processing information , attention , memory work , and skills pre-literacy and pre-numeracy (Hirsh-Pasek et al., 2009; Ginsburg, 2007).

At the level policies and curriculum , PAUD guidelines suggest integration activity quality play as part from the learning process For reach competence base child age early . In Indonesia, the document PAUD curriculum emphasizes importance approach holistic integrative that combines aspect cognitive , language , moral, physical , social , and emotional through experience meaningful play (Ministry of Education and Culture of the Republic of Indonesia, 2013). However , there are gap between policies and practices on the ground — many PAUD institutions that are still depend on activity too much teaching teacher- centered or material , so that chance child For think critical , experimental , and initiative reduce .

In addition , the factors like limitations source power ( tool game educational , environmental learning that supports ), capacity professional teachers in design and facilitate game meaningful educational , as well as parental involvement become inhibitor optimization stimulation cognitive . Therefore that , study systematic and practical implementation that describes the game model effective educational — that is easy adapted in context local such as kindergarten or early childhood education—are very necessary .

Based on condition said , research and proceedings This aim For examine and offer models of practice optimization education development cognitive child age early through game educational . Focus study includes : (1) foundation theoretical and evidential empirical support game educative as stimulation cognitive ; (2) design game appropriate educational with stage development children ; (3) the role of teachers and parents in facilitation ; and (4) recommendations contextual implementation For increase effectiveness learning in PAUD institutions .

With present findings and recommendations practical , expected proceedings This can become contribution for development quality education child age early — especially in optimize ability cognitive through game meaningful , fun , and sustainable education .

## **RESEARCH METHODS**

Study This use approach qualitative descriptive with objective describe in a way deep How game educative can optimize development cognitive child age early . Approach This chosen Because allows researchers understand phenomenon in a way contextual through interaction direct with children ,

teachers, and the environment Study .

Data collection technique

Data obtained through :

1. Observation : carried out For observe in a way direct activity play children and forms stimulation emerging cognitive during game educational .
2. Interview in depth : with teachers and parents For get information about learning strategies , responses children , and impact game to development cognitive .
3. Documentation : includes Photo activities , notes teacher's diary , and plans implementation learning daily (RPPH).

## **RESULTS AND DISCUSSION**

### **Results**

Based on results observations and interviews conducted data obtained that activity play educative has integrated in the learning process daily . Games used among others:

1. Game compile beam color and shape ,
2. Sorting games ( grouping) object based on color , size , or type ),
3. Game numbers and letters use cards , as well as
4. Game role simple (role play) that trains Power imagination and thinking symbolic child .

Activity the done in a way group and child - centered . The teacher plays a role as facilitator who provides stimulation in the form of question open , encouragement For try , and give chance child explain results his findings .

Observation result show existence improvement ability child in a number of aspect cognitive , including :

1. Ability classification and categorization , namely child capable grouping object based on color , size , and shape with more fast and accurate .
2. Ability counting early , such as count objects 1–10 and recognize symbol number .
3. Ability solve problem simple , like determine method compile tower from block so as not to easy collapsed .
4. Memory and attention increased , visible from ability child follow rule games and remembering order step .
5. Ability think logical and linguistic increased , through activity tell return results games and discussions with Friend .

In addition , teachers also report that child become more active , trust yourself , and show a sense of desire high tofu during activity play .

Findings This show that game educative No only means entertainment , but also a tool effective pedagogical in optimize development cognitive child age early .

### **Discussion**

#### **Game Educative as Stimulation Cognitive**

Play is activity experience child For learn and understand the world around them . According to Jean Piaget (1952), children build knowledge through interaction active with objects and their environment . In this stage pre-operational ( ages 2–7 years ), games symbolic and manipulative help child develop draft think logical and ability mental representation .

While Vygotsky (1978) emphasized that game is context social enabling child Study through interaction with other people (teachers and friends) peers ). Games educationally designed with Good capable become a development zone

proximal (Zone of Proximal Development) which stimulates child reach ability think more tall with adult support .

Research by Hirsh-Pasek et al. (2009) shows that learning based play capable increase ability think critical , memory , and creativity child preschool in a way significant compared to with learning that is instructional . Findings the strengthen view said , where the child show improvement in aspect measured cognitive through observation behavior learning and results activity play .

### **The Role of Teachers in Optimizing Game Educative**

The teacher has role central in direct activity play to have mark educational . Based on results interview , the teacher has apply scaffolding principles , namely give help temporary For guide child think and find solution . According to Bruner (1966), scaffolding helps child understand draft abstract through experience concrete and guidance gradually . In the context of In this , the teacher plays a role as facilitator , not giver instructions main .

In addition , the Ministry of Education and Culture (2013) through The 2013 PAUD curriculum emphasizes that activity learning child age early must child - centered , active , fun , and meaningful . Approach play educative proven in line with principle This Because give chance child explore and construct knowledge Alone .

### **Impact Social and Emotional from Game Educative**

Apart from the aspect cognitive , activities play educational and also fosters ability social-emotional children . Children learn Work equal , take turns , share , and appreciate opinion friends . According to Ginsburg (2007), games contribute to formation regulations self , empathy , and ability healthy social — factors important For readiness studying in school basic . Observation show that when child play group , they No only hone Power think but also learn negotiate and take decision together , which is form think social level carry on .

### **Implementation Constraints in the Field**

Although the result positive , research also found a number of constraint :

1. Limitations of game media educational , especially various and appropriate tools age .
2. Lack of teacher training in designing activity structured play However flexible .
3. The role of parents Still passive , especially in support activity playing at home .

Therefore that , optimization education cognitive through game educative need support from various parties : institutions , teachers, and parents .

### **Implications and Recommendations**

Findings This implies importance :

1. Early Childhood Education Teacher Training in designing game educative based stage development cognitive child .
2. Curriculum integration based playing , not only as activity additional , but as the core of learning .
3. Collaboration with parents , so that stimulation cognitive continued at home through activity play simple .

With thus , the game educative proven as a learning strategy effective that optimizes development cognitive child age early at a time support development

social and emotional they in a way holistic .

## CONCLUSIONS

Study This show that game educative is an effective strategy in optimize development cognitive child age early . Through activity directed play , children get chance For think critical , solving problem , grouping object , recognize symbol numbers and letters , as well as develop Power memory and creativity . Learning based game allows child Study in a way natural , active , and fun , suitable with characteristics development they.

The role of the teacher becomes factor key in direct games to be worth it educational . Teachers do not only functioning as observer , but also as facilitator who provides stimulation , guidance , and feedback come back during the playing process . In addition , parental involvement in support activity playing at home strengthen results learning gained children at school.

Research result strengthen Piaget's (1952) and Vygotsky's (1978) theories emphasize importance experience concrete , interaction social , and scaffolding in formation ability think children . Therefore that , optimization education cognitive child age early need directed at learning based on playful , contextual , and participatory , with support a stimulation- rich environment .

With thus , the game educative No only functioning as means entertainment , but also as a strategic medium For build foundation intelligence and readiness Study children in the future . Strengthening teacher capacity , provision of varied game media , and collaboration between school and family become step important For realize education child age quality and sustainable early childhood .

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