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**EFFECTIVENESS APPLICATION STIMULATION DETECTION EARLY  
INTERVENTION GROWTH CHILD DEVELOPMENT AGAINST MONITORING  
CHILD GROWTH AND DEVELOPMENT  
BY CADRES AT POSYANDU**

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**Abstract**

Stimulation Program Detection Early Intervention Growth is one of the service health important in Indonesia in effort improvement welfare babies, children and toddlers. The number toddlers in Indonesia are quite big namely 10% of amount overall with various problem one of them disturbance growth and development. Children aged under 5 years cause various type problems and solutions problem How ways for children in Indonesia to experience appropriate growth and development age. From study This give evaluation effectiveness application Stimulation Detection Early Intervention Growth Child Development. Study This will use method quantitative with approach experimental control group design consisting of from group experiments that use 32 person and group application control of 32 people who used book guidelines implementation of SDIDTK at the level service basis. Data analyzed using nonparametric tests Statistical tests nonparametric Wilcoxon Signed-Rank Test was performed Forknow difference between pretest and posttest scores for each group. These results show that there is significant difference between pretest and posttest scores on both groups. In other words, there is improvement results meaningful learning after given treatment, both in the group using application and groups that use book.

**Keywords:** *Effectiveness Application, Growing Flower Children, Monitoring Growth, Stimulation Detection, Intervention Early*

## INTRODUCTION

Of the 250 children in low-income countries low estimated No fulfil potential development, so that need existence renewal that seeks impact intervention nutrition as well as growth and development child (Dulal et al. 2021). Stimulation Program Detection Early Intervention Growth Kembang Anak is one of the service health important in Indonesia in effort improvement welfare babies , children and toddlers (Regina 2023a).

Development child age under 5 years cause various type problems and solutions the problem How ways for children in Indonesia to experience appropriate growth and development with age they (Windiyani, Sundari, and Nurdianti 2019). The number of toddlers in Indonesia are quite big namely 10% of amount overall with various problem one of them disturbance growth and development (Nabila and Triasatin 2024).

Growth and development during this period No will repeating because at this time age toddlers are very sensitive to environment surrounding area. (Windiyani W, Suilawati S 2021). For produce smart child then at this time child need balanced nutrition (Windiyani, Susilawati (Windiyani, Susilawati, and Pratiwi 2021).

Growth and development child age early is fundamental aspects in form quality

source Power humans in the future. This time more known with period gold , where appropriate intervention can influence health physical, cognitive and social in a way significant. (Suryani and Carudin 2017). One of the activities carried out government that is do monitoring stimulation detection intervention early grow flower children who are carried out at the integrated health post (posyandu ). (Qomari et al. 2020). Therefore, That detection intervention early grow flower child become essential For identify and handle problem growth before develop become disturbance permanent (Renityas, Sari, and Noviasari 2022).

Integrated Health Post is one of the receptacle in effort increase health public For improve health status and growth flower Toddlers (Antropometri 2024). Activities integrated health post covering a number of matter among them monitoring nutritional status, immunization and growth flower children (Wahyudin, Tosida, and Andria 2019). In addition power health which is midwives, cadres have a very important role that is not only invite and activate cadre integrated health post but cadres must also have competent knowledge and skills in carry out his duties (Yuliana, Ramadhan, and Harwanto 2024).

One of task cadre that is do monitoring growth and development child who is Service Integrated Health for detect grow flower children (Monalisa et al. 2021). One of the key success implementation monitoring Stimulation Detection Early Intervention Growth Child Development with existence role cadres (Ratnaningsih, Febriati, and Sugathot 2024). Cadres are power self-reliance volunteers involved by the Community Health Center in activity service health the village is one of them monitoring growth and development (Hendrawati, Mediani, and Maryam 2023).

Activity Posyandu is based on the role of important cadres (Hendrawati et al. n.d.). See a number of very difficult monitoring carried out by cadres, then considered need For do intervention as early as Possible in make it easier for cadres. (Syarif and Rahmawati 2024). Success integrated health post seen from how much big and important role cadre in do monitoring and recording reporting, (Dan et al. 2022) .

Study results in the field that monitoring grow flower in the field own a number of constraints not enough his understanding about detection early, recording and reporting are still using manual as well limitations tools and time in do accurate monitoring (Riset Kesehatan Dasar (Riskesdas) 2018).

Along development technology android -based digital applications in carry out monitoring Stimulation Detection Early Intervention Growth Flower child offer solution innovative in help cadre in do monitoring in a way accurate and efficient (Sunarni, Fauzi, and Solihah 2023) .

Study This aim evaluate effectiveness application Stimulation Detection Early Intervention grows flower child in increase accuracy monitoring grow flower children and improve capacity cadre in detection early. Formulation in problem This How effectiveness application stimulation detection intervention early grows flower child in increase accuracy monitoring grow flowers at Posyandu. In 2019, researchers get grant study lecturer beginner with title Effectiveness Application Stimulation Detection Early Intervention Growth Child Development Against Monitoring Child Growth and Development by Cadres at Posyandu.

## **RESEARCH METHOD**

Approach problem in study This done through implementation SDIDTK application at integrated health posts as tool help cadre in do monitoring growth and development. Research use method quantitative with approach experiment pseudo comparing monitoring between cadres who use applications and cadres who use them KIA book. Data analyzed using

the non - parametric Wilcoxon test see comparison between two groups. Problem-solving strategy the problem through development and design through validation application in accordance standard national, training intensive for cadre integrated health post for use application, pre-test data collection before implementation application, post test data collection For evaluation effectiveness use application as bait come back For development sustainable (Perceka 2018).

Group experiment is cadres in the work area Community Health Center Deny city Tasikmalaya. Distribution from group experiment divided become 32 cadres as group experiment use Application and as many as 32 people as group control that uses book guidelines implementation of SDIDTK in Maternal and Child Health (MCH) Book at the level service base Ministry of Health .

Research process started with ; 1. Doing compilation module use application, 2. Do selection and coordination with cadres, 3. Carrying out permission ethics and administration, 4. Carrying out training cadre integrated health post in use application, 5. Giving pre-test on cadres, 6. Conduct Implementation in activity integrated health post, 7. Carrying out supervision use application, 8. Giving posttest on cadres, 9. Evaluative

questionnaire interviews, 10. Data analysis and 11. Compilation report end .

## RESEARCH RESULTS AND

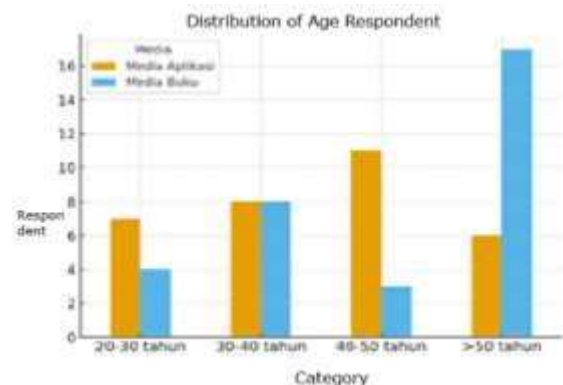
### 1. Results

Result of study to a total of 64 respondents with category 32 groups experiments and 32 groups control, obtained existence significant difference from use of media applications and books.

#### a. Analisis Univariate

Analysis univariate is type analysis statistics that only involving one variable only. Purpose mainly is describe or describe characteristics from variables the without see connection or influence with variables other.

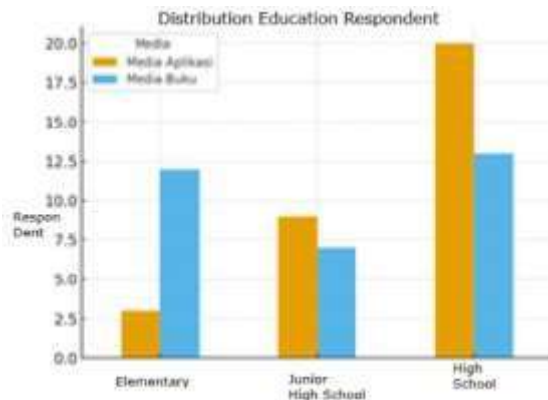
#### 1. Age



From the table above, it is known that that category cadre age 20–30 years old who do detection grow flower child using application media as many as 7 people and 4 people used book media. Category cadre age 30–40 years old who do detection grow flower child using application media 8

people, Book Media 8 people. Category cadre age 40–50 years old who do detection grow flower child using application media 11 people and book media 3 people. Cadres aged >50 years who did detection grow flower child use using application media 6 people and book media 17 people. Respondent application more many in the group aged 20–50 years, whereas respondent book more dominant in ages >50 years.

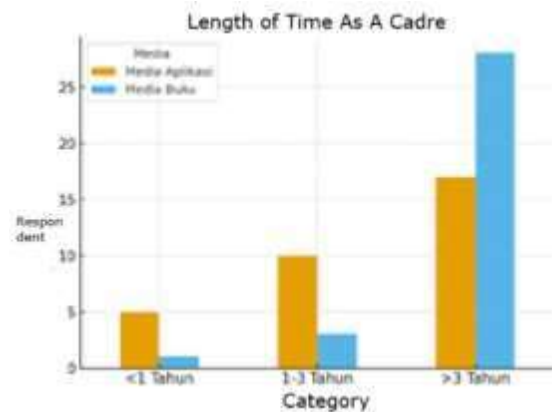
## 2. Education



From the table above category education cadres who do implementation detection grow flower child using application media and book media shared become three group including; Category education SD that uses application media as many as 3 people and 12 book media people. Category junior high school education that uses application media as many as 9 people and book media 7 people. Category high school education that uses application media as many as 20 people and

book media 13 people. Respondent using application media majority high school education, while respondents use of book media more lots elementary school education.

## 3. Length of Time as a Cadre



From the table above, the time becomes cadre respondent application more evenly between new until a long time, while respondents book majority Already become cadre more from 3 years.

## 2. Analysis Bivariate

Analysis bivariate is analysis statistics involving two variables for see relationship, difference, or influence between both of them.

### a. Normality Test

Results	Class	Shapiro-Wilk		Sig.
		statistis	df	
Application Media Pretest		,863	32	,001
Application Media Posttest		,806	32	,000
Book Media Pretest		,889	32	,003
Book Media Posttest		,905	32	,008

Based on the results of the Shapiro-Wilk normality test, it is known that the data on the variables Sig value results significance not enough from 0.05. Therefore that, can concluded that data distribution is not normally distributed, so that analysis furthermore will use nonparametric test.

b. Wilcoxon Test

	post-test application - application pretest	post-test book - peretset book
Z	-4,940 <sup>b</sup>	-4.966 <sup>b</sup>
Asymp . Sig. (2-tailed)	,000	,000

Statistical test nonparametric Wilcoxon Signed-Rank Test was performed for know difference between pretest and posttest scores for each group because the data is not normally distributed.

Based on results analysis, obtained mark  $Z = -4.940$  with  $p = 0.000$  ( $p < 0.05$ ) in the group experiments (applications), as well as  $Z = -4.966$  with  $p = 0.000$  ( $p < 0.05$ ) in the group control (book).

The results show that there is significant difference between pretest and posttest scores on both groups. In other words, there is improvement results meaningful learning after given treatment, both in the group using application and groups that use book.

Group	Pretest (Mean ± SD)	Posttest (Mean ± SD)
Experiment	72.86 ± 4.57	80.03 ± 5.54
Control	73.44 ± 3.56	81.56 ± 3.83

From the table above, it shows comparison average pretest and posttest scores in the group experiment (using applications) and groups control (using book). It looks existence improvement value on both groups, but improvement in the group experiment looks more tall compared to group control.

## DISCUSSION

Stimulation, Detection, Early Intervention of Growth (SDIDTK) is activity comprehensive and functional for monitor aspect grow flower children 's activities this is very important For optimize body organ functions Good physical, mental, emotional and social as well as own intelligence compound in accordance with potential genetics.

Development grow flower should implemented in a way comprehensive and quality, coordinative with involving family, society, profession, institution social functioning society, government and private sector for see whether growth and development si small in accordance his age or No (Kusumaningsih and Hasanah 2023).

In development a childrens, stimulation is something need basic. Stimulation holds a very important role for

increase growth and development baby for can develop with maximum. Besides that, the stimulation given Keep going continuously in a way routine can stimulate development in cells brain and will strengthen connection between nerves that have been formed, in a way automatic function brain will become the more good (Wahyudin and Perceka 2019).

Sustainability of the Early Growth Stimulation, Detection, and Intervention Program Flower (SDIDTK) in Indonesia at the moment This Still become focus effort in service health children. Some initiatives undertaken For support the sustainability of this program including development application based technology For monitor grow flower children, training and socialization to power health and society general, and giving service stimulation, detection, and intervention early grow development in toddlers and children preschool (Nabila and Triasatin 2024).

Technology is A combination from skills, knowledge, equipment, machines and computers used for design, manufacture and distribute goods and services (Perceka and Sutrisno 2020). The more advanced technology used so the more needed structure flexible organization use increase ability manager for give response to an unavoidable situation can estimated previously and provide freedom For look for solution new on problem or current

issues happened. Technology information moment This implemented in various aspect life, start from layer public Good individuals, organizations, and agency others who were also moved For go ahead and use it (Nurona Cahya et al. 2025) .

In its application, implementation inspection grows flower child with application need given mentoring and training, as well as smartphones that support cadres. However, it is seen from effectiveness, use application more effective in give education, conclusion in withdrawal SDIDTK results. Conclusion general, in do SDIDTK media application test give more results Good compared to with book media.

That matter in line with research conducted by Regina in Monitoring and Evaluation Strategy for Growth Stimulation, Detection and Early Intervention Programs Flower (SDIDTK) in Increase Quality Maternal and Child Health Services in Indonesia that are obtained recommendation For do it development and utilization application based technology in monitoring grow flower child (Regina 2023b).

The use of smartphones has become matter important for the world of health. The use of smartphones is very helpful in services health, promotion health, and improve degrees health. Such as case in point use smartphone application for

monitoring grow flower child beneficial provide information about stimulation in children, providing guide in stimulation grow flower children, making it easier midwife in give counseling grow flower children, and in documentation grow flower child (Lubis, Sihombing, and Gultom 2023).

Research result This in line with research conducted by (Susyanti, Maryana, and Suryawantie 2020) regarding parental perception to application similar that is iPosyandu shows 62% of mothers agree that application iPosyandu as application monitor grow flower. Research results This is supported by research conducted by (Hanriyani and Suazini 2022) said that implementation application can increase knowledge and skills Mother in monitoring growth and development toddlers, with increasing knowledge Mother so monitoring grow flower child can done in a way maximum (Wahono 2022).

## CONCLUSION

Early Growth Stimulation, Detection, and Intervention Program Kembang (SDIDTK), which has introduced since 2007 in Indonesia, is initiative important for support growth and development healthy children. The focus of this program is on detection early and giving proper stimulation. Its implementation involving various parties

and aspects namely, energy health, educators, development technology and facilities service health.

Result of study Effectiveness Application Stimulation Detection Early Intervention Growth Child Development Against Monitoring Child Growth and Development by Cadres at Integrated Health Posts show that existence difference significant between use of application media and book media.

Respondents who use Application tend own score more results high (frequency more bigs on value high yields).

Respondents who use Book tend own score results more lows compared to group application. This is also reinforced with higher Mean Rank value high in the group Application compared to group Book.

Conclusion In General general, media Application give more results Good compared to with book media.

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