

# APPLICATIONS OF SUNDA CULTURE KINDERGARTEN BASED ON ETNOPEDAGOGIC AND TECHNOPELAGOGY AS AN EFFORT TO STIMULATE THE MENTAL DEVELOPMENT OF WEST JAVA SOCIETY 5.0

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## Abstract

Indonesia is a multi-cultural country; the icon will remain in the future if the owners of regional culture in Indonesia are able to uphold and commit to moral responsibility for the life of Indonesian people in the future. Sundanese culture is one of the cultures known in the world, but in the context of the decline of Sundanese identity to the successors of Sundanese culture, namely early childhood in the province of West Java, it is hampered by the digital concept as world culture today. This issue is a positive whip for observers of early childhood education in West Java province to show responsibility in fulfilling children's rights so that they deserve to live in the era of society 5.0. Efforts made to solve these problems in this research are digitizing media based on ethnopedology (Sundanese Culture) and techno pedagogic (Android digital applications) which are designed to stimulate the mental development of West Java people in the era of society 5.0. The digitization of the media in this study resulted in an application for Kindergarten Sundanese Culture that can be used on Android smartphones. The results of trials of media application carried out in 4 areas of West Java Province (Bandung City, Bandung Regency, Purwakarta Regency, and Tasikmalaya City, Indonesia) showed that the application of Kindergarten Sundanese Culture was appropriate to be used for efforts to stimulate the mental development of West Java humans in the era of Society 5.0.

**Keywords:** Sundanese Culture, Kindergarten, Ethnopedology, Techno pedagogic, Mental Society 5.0.

## 1. Introduction

Education and culture are a unified whole in achieving the needs of human life. The two functions of education as a conservation function and an innovation function are strongly related to the goals of education (Dewantara, 1967 & 1977). The era of the industrial revolution 4.0 is the frame of human life currently being a whip for observers of future culture to think about the mentality of human life in the era of society 5.0. There are three mental domains that must be prepared for humans to deserve to live in the era of society

5.0, namely literacy skills, character maturity, and self-competence that are recognized by the world (Herlambang 2018).

Human literacy ability is measured by the ability to think analytically, think critically, and think solution. Literacy is carried out systematically through the concept of analyzing the value of meaning and then being critical in normative truth and able to support solutions as a form of self-responsibility to all life problems and the lives of themselves and other humans.

Fulfillment of the right to self-character development as a complete human being is part of the mental element of future human beings. Humans of the future must be able to do self-management, cultivate themselves, and process their emotions into all forms of positive behavior. Lickona (2016) said that future human characters can crystallize within themselves if there is a synchronization between moral knowing, moral feeling, and moral action. In line with Jersild et.al (1961) conveying the term human self-image that must be embedded in oneself to be able to survive in the future is the optimal physical self-image, psychological self-image, and social self-image.

Self-competence that is recognized by the world means that future humans must have self-efficacy that is relevant to the world's culture in the future. This ability is of course normative and capable of being an example for the next human life. Self-abilities that are recognized by the world are part of the key like humans to live in the era of society 5.0 (Kasali, 2018).

The current need for stimulation is to instill the value of conservation through the concept of innovation in education. The planting of conservation values is carried out through the ethnopedology concept and innovation is carried out through the techno pedagogic concept.

Science collaboration between ethnopedology's and techno pedagogics can be designed in the form of digital media that are relevant and in accordance with today's human culture (Supriatna et.al, 2016; Gandana et.al, 2018; Herlambang, 2018; Gandana, 2019; and Fleaca & Stanciu, 2019).

Android is a digital operating system that is part of human life in the era of the industrial revolution 4.0 (Gandana, 2019). Digital android is not a creature that destroys the future of humans. It is precisely the part that destroys the future of humans is the human himself who does not think about the needs of life and future human life.

The position of education in this realm has a role and responsibility for this issue. Not just thinking about how to overcome it, but what we have done in the mental development of

the future human being. Basically, it is not digital media that is wrong in human life but mental brainwave that must be addressed through logic and compassion in a balanced way (Heinich, 2002).

The problem is not the purpose of this study but is part of the dynamics of life and human life that must be balanced with solutions. The solution to achieve the hope of future human mental awakening (Era Society 5.0) carried out by researchers in the West Java Province is through the development of digital media android applications for Kindergarten Sundanese Culture based on ethnopedology and techno pedagogic for early childhood.

## 2. Method

The process of developing ethnopedology and techno pedagogic-based digital media (android applications) is carried out using research methods and the development of qualitative and quantitative studies through the following stages (Borg, W. R. & Gall M. D. 1983).

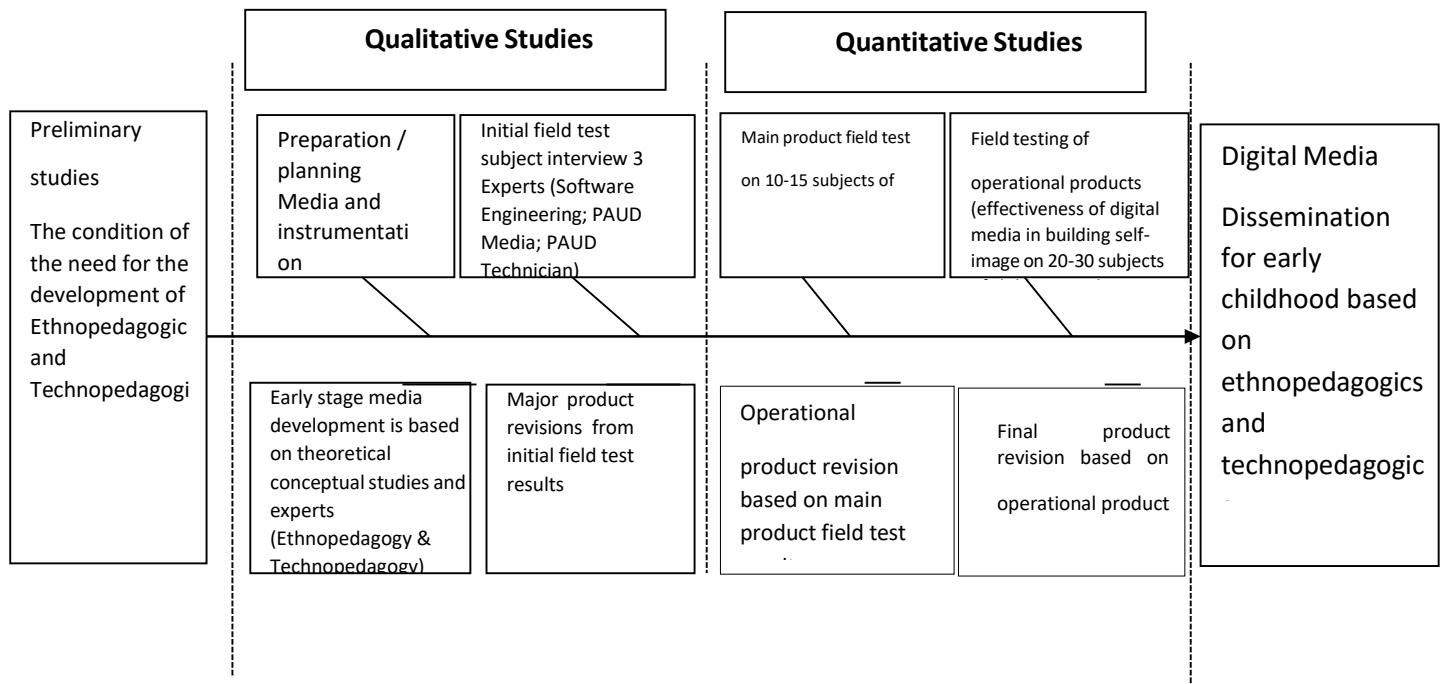


Figure 1. Digital Media Research and Development Phase (Android Application) for Ethnopedology and Techno Pedagogic-Based Early Childhood

The conceptual design for the development of digital media products based on ethnopedology and techno pedagogic android applications is as follows

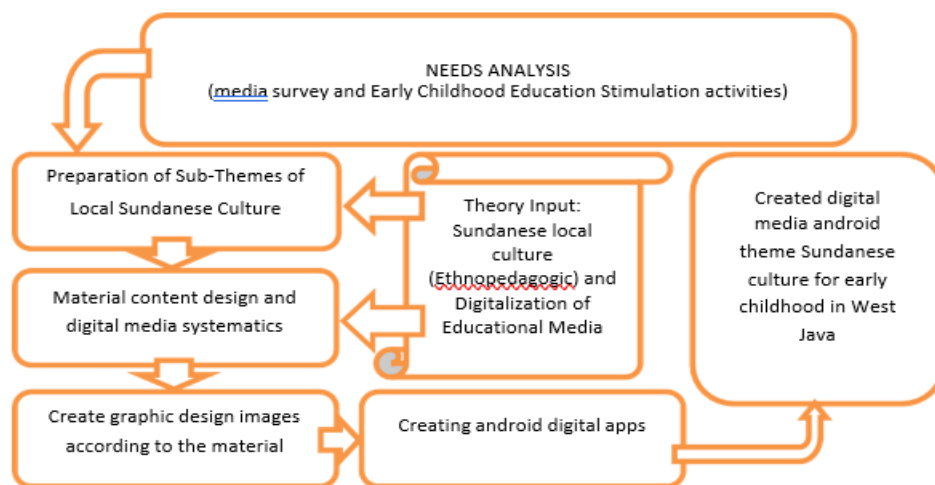


Figure 2. Conceptual Design of Ethnopedology and Techno Pedagogic-Based Android Application Digital Media Development for Early Childhood

The process of validating the feasibility of digital media android applications is carried out through a one-to-one technique on three competent experts in accordance with media feasibility instruments relevant to their fields. one expert in communication science software engineering, one expert on early childhood education media, and one technical expert on

professional early childhood education teacher education. The next stage is a field trial of the main product on children aged 5-6 years in 1 area of Bandung City, then field trials of operational products are carried out on children aged 5-6 years in 3 areas of Bandung Regency, Purwakarta Regency, and Tasikmalya City, Indonesia.

From the results of the product trials above, the final product is finally obtained in the form of digital media for Kindergarten Sundanese Culture Applications based on ethnopedology and techno-pedagogic that can be operated on the Android smart phone system.

### 3. Result and Discussion

#### A. Result

The results of research and development of digital media (android applications) based on ethnopedology's and techno pedagogics for early childhood are shown from the results of field trials of subject interviews one to one (3 expert validation), field trials of main products, and field trials of operational products. The results of the validation generally show that the digital media (Android Application) of Mother Kindergarten is appropriate to be used as a medium for stimulating future human mental

development (the era of Society 5.0) with the condition that minor improvements are only at the technical level of using digital media, there are still slide input system errors, image precision. there are still things that are not proportional, and the picture does not match the sound.

All data from the field trial results of subject interviews are used as a reference for improving the digital media (android application) for Mother Kindergarten and are used as the basis for the feasibility of digital media (android applications) based on ethnopedology's and techno pedagogics to stimulate human mental development in the era of society 5.0. The data on the results of the digital media feasibility test for Kindergarten Sundanese Culture Applications based on ethnopedology and techno pedagogic as an effort to develop human mentality in the era of society 5.0 can be seen in the following graph.

Table 1. Main Product Trial Results or Children aged 5-6 years in 1 Bandung City Region, West Java Province

No	Aspek	Pre		Post		Gain	%
		Skor	%	Skor	%		
1	Physical Self Image	144	53,3%	225	83,3%	81	30%
2	Psychological Self Image	87	48,3%	152	84,4%	65	36,1%
3	Social Self Image	254	56,4%	395	87,8%	141	31,4%
TOTAL		485	53,9%	772	85,8%	283	31,9%

Table 2. Operational Product Trial Results for Children 5-6 Years Old in 3 Regions (Bandung Regency, Purwakarta Regency, and Tasikmalaya City) West Java Province

Lokasi	No	Aspect	Pre		Post		Gain	%
			Skor	%	Skor	%		
Bandung Regency	1	Physical Self Image	117	48,1%	200	82,3%	83	34,2%
	2	Psychological Self Image	67	41%	137	84%	70	43%
	3	Social Self Image	200	43,4%	380	93,8%	180	50,4%
	TOTAL		384	47,4%	717	88,5%	333	41,1%
Purwakarta Regency	1	Physical Self Image	123	45,6%	242	89,6%	119	44%
	2	Psychological Self Image	66	36,7%	156	86,7%	90	50%
	3	Social Self Image	231	51,3%	339	88,7%	108	37,4%
	TOTAL		420	46,7%	797	88,6%	377	41,9%
Tasikmalaya City	1	Physical Self Image	139	42,9%	257	79,3%	118	36,4%
	2	Psychological Self Image	99	45,8%	173	80,1%	74	34,3%
	3	Social Self Image	238	44,1%	448	83%	210	38,9%
	TOTAL		476	44,1%	878	81,3%	402	37,2%

## B. Discussion

a. Ethnopedology-based Digital Media as Educational Conservation Ethnopedology-based Digital Media as educational conservation (Dewantara, 1967 & 1977, and Sumantri & Gandana, 2021) in this case means that the Application of Kindergarten Sundanese Culture is a digital media built through the concept of Sundanese Ethnocultural in the frame of children's education. early childhood in the province of West Java. The application of Kindergarten Sundanese culture can be used as a digital stimulation medium for early childhood mental cultivation in interpreting Sundanese culture as their own identity. So that the Kindergarten Sundanese Culture Application can be part of the solution to mental anxiety, morals, and human behavior in West Java in the future.

b. Techno pedagogic-based Digital Media as Educational Innovation Techno-pedagogic-based Digital Media as an educational innovation in this case can be interpreted that the application of Sundanese culture for Kindergarten is an innovation product in the context of digitizing early childhood education media. The Kindergarten Sundanese Culture application is specifically designed based on the culture of human life in the era of the industrial revolution 4.0, which is used on computers with the Android operating system. The previous tradition stated that books are windows to the world, so now for every individual who has an android smart phone it is more accurately stated by the term that the world is in your hands (Gandana et al, 2019; Lestari et al, 2019; Yasbiati et al, 2019; and Nurzaman et al, 2020). It can be interpreted that the basis for the digitalization of early childhood education media innovation is in techno-pedagogic studies. The application of Kindergarten Sundanese Culture is an innovative product that is specifically designed based on this techno-pedagogic study. still recognized in the eyes of the world (Nurjanah et al, 2020).

c. Digitalization of Educational Media for early childhood based on Ethnopedology and Techno pedagogic Applications of Sundanese Culture for Kindergarten (Mother Kindergarten) as an

Effort to Stimulate Mental Development of West Java Humans Era Society 5.0.

Innovation efforts to digitize educational facilities in the context of media Early childhood education is part of the eligibility requirements in the cultural relevance of human life today (Heinich, R et al, 2002 & Gandana et al, 2018). The application of Kindergarten Sundanese Culture in this study is devoted to aligning the interests of early childhood education in the era of the industrial revolution 4.0 to stimulate the cultivation of local Sundanese cultural values of West Java in children from an early age. The above efforts are evidence of the responsibility of adults in West Java so that early childhood becomes a human being who has the mentality and is ready to live in the future with the strength of the Sundanese culture he has. The future in this context is the era of society 5.0. Therefore, it can be interpreted that the digital media for Kindergarten Sundanese Culture Applications as a scaffolding in stimulating the mental development of West Java people so that they deserve to live in the era of society 5.0.

## Conclusion

Based on the results of the study above, it can be concluded that.

1. How important it is to develop an ethnopedagogic and techno-pedagogic-based application for Kindergarten Sundanese Culture as an effort to stimulate the mental development of early childhood in West Java province in the era of society 5.0.

2. The development of the Sundanese Kindergarten Culture digital application is based on the urgency of inculcating Sundanese cultural values for early childhood in West Java province that can be used on Android smartphones.

3. Kindergarten Sundanese Culture application deserves to be declared as an ethnopedology and techno pedagogic-based digital media to stimulate early childhood mental development in West Java province era of society 5.0.

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