## PRELIMINARY STUDY TO PRIMARY EDUCATION FACILITIES

(A Comparison Study between Indonesia and Developed Countries)

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#### **ABSTRACT**

This writing is a preliminary study to condition of primary education facilities in Indonesia, and then comparing these with theories as well as various relevant cases aimed to know the problem more obviously. Basically, there is difference between primary education facilities in Indonesia with those in developed countries. Meanwhile on the other hand, the condition as well as the completion of education facility is actually as the main factor contributes to address the purpose of learning process. If building design, interior and also site plan were dynamic in form, space, colour and tools, those would be probably more stimulate activity and influence into the growth of students. However, lastly, it is still required further analysis, as an example analysis to student's behaviour in spaces of learning environment, more detail and within enough time, not only at indoor but also at outdoor.

**Keywords**: primary education facilities, learning process, human resources.

#### **INTRODUCTION**

Formerly, education has been being practiced in even since colonialism period. Nevertheless, in that period education was still enjoyed by limited people and often in context to obtain colonial's accomplishes. There is also exist, development of our education in Orde Lama Period as well as in Orde Baru Period. It is further introduced 9 years of Compulsory Education Program (Elementary School and Junior High School). SD Inpres have been built all over Indonesia, or besides these, we certainly often see renovation of SD buildings while we will commemorate Independence Day on August 17<sup>th</sup> every year, as an example. Curriculum is also frequently getting reforms.

Unfortunately, what and how education system should be and will be, seem still going on so slowly. Deals with this, noted that the development of resources in Indonesia was just on position of 107 from 147 countries, whereas the quality of resources is actually in on position of 2 (UNDP Survey 2000). It is could be as indicator of how the quality of Indonesia's human resources.

In particular, there is difference between education systems of majority schools in Indonesia with this in developed countries. Often, school in our mind, is still imagines as a simple classroom, in walls, floors, ceilings, furniture, and other learning completions. Therefore, on that class, the students listening carefully to the teacher and then writing on their books, and also working exercises given by teacher or writing some questions and then bringing those to their home as homework. In brief, our

education has not been attempted to use democraticstyle yet, such as using two way learning method. In fact, it was ever held CBSA<sup>1</sup> Program, nevertheless did not quiet effective due to various hindrances, such as: restriction skill of teacher as well as facilities, or monitoring which is unavailable, etc.

It is not scarce students look "fully laziness" or "have no wanted". In fact, the most waiting time for them is rest hour or when learning time has been finish. On the other word, often the phenomenon which occurs is "missing-freedom syndrome". The more so, there are so many entertainment facilities out of school, various television channels or playing centre such as: internet facility, malls, game centres, etc.

#### FORMULATION OF PROBLEM

From the background described above, in particular, it is necessary to study primary education facilities<sup>2</sup> in Indonesia more accurately. In brief, further, questions which should be answered are: how are the real conditions, how are the more detail problems and how to improve these in the future?

<sup>&</sup>lt;sup>1</sup> Cara Belajar Siswa Aktif (Active Learning Method for Student)

<sup>&</sup>lt;sup>2</sup> In Foreign countries mainly in developed countries, Primary Education Facilities contain of Pre-School and Elementary School, on the other words early education process in Pre School has been considered on the same importance with Elementary School, due to involvement of "golden ages" (0-8 years). In Indonesia, there are Playgroup and Taman Kanak-kanak (TK or Kindergarten) as Pre-School facilities, before a child enroll to Sekolah Dasar (SD/Elementary School). However majority of children in Indonesia enroll directly to Sekolah Dasar.

#### **THEORIES**

Now day, many experts relate intelligence with creativity. Based on several sources, Primadi (2005) points out, now it is found that modern people also think of with creativity within unconscious. Even, in fact, creativity much more work on picture language more on "deep energy" not merely by cerebral cortex, more on integration of senses not only by eyes.

Before we are going to further analysis, it is essential to consider several categorizations of the growth of human nature ability, as explained follows:

#### Categorization by Elizabeth B. Hurlock:

Table 1 Specialization of Ability by Piaget

Stage	Age	Specialization of Ability
Sensory motor	0 - 24	- The growth on scheme of reflect
	month	to know surroundings
		<ul> <li>Getting ability on perception of</li> </ul>
		object determination
Pre-Operational	1 - 5 year	- Utilisation of symbol and
		arrange internal response, for
		example in : play, language and
		imitation
Real Operational	5 – 12 year	- Getting ability to think of real
_		problem schematically
		<ul> <li>Getting conservation ability</li> </ul>
Formal	12 - adult	- Getting ability to think more
Operational		schematically into abstraction as
_		well as hypothesis.

According to explanation above, all stages of age is has similar importance within framework of the growth of human nature. However, from explanation of Piaget, Irwin Altman and Daniel Stokols can be seen the most important sophisticated growth during the age of 0 to 12 years. There is also link among 4 phases of categorization explained above. On the other words, a phase always relates with other phases. So, the fault of act in one of primary stages could be affect to the next stages.

Meanwhile, step of education in Indonesia are generally as follow:

- 1. Playgroup and Kindergarten<sup>3</sup>: 2,5 7 year
- 2. Elementary School<sup>4</sup>: 7 13 year

Junior High School and Senior High School<sup>5</sup>: 13 – 19 year

Table 2. Space Conception based on Step of Child's Growth

Stage	Age	Space Conception		
Sensory motor	0 - 24	In this stage, a child begins to		
Pre-	month	understand both sequent and		
Operational	1 - 5	route, but this ability has not been		
	year	completely grown up yet. In this		
		stage further is exist, the growth of typology relationship, encompasses:		
		<ol> <li>Proximity or nearness.</li> </ol>		
		<ol><li>Separation.</li></ol>		
		<ol><li>Order or spatial succession.</li></ol>		
		<ol><li>Enclosure or surrounding.</li></ol>		
		5. Continuity		
Concrete	5 - 12	In this stage children begin to		
Operational	year	understand the meaning of		
		projective space, encompasses:		
		<ol> <li>Understand and also able to</li> </ol>		
		operate well entirely situation		
		in sequent and object. For		
		example: link between the		
		way to school and home.		
		2. Understand more to		
		alternative of space and its		
		choices rather than arrange		
		relation of space that quiet		
		new for them.		
Formal	12 -	Getting ability of think. In this		
Operational	adult	stage, children begin to imagine		
•		space clearly and also logically		
		(euclidean space), in which		
		children can abstract linkage		
		among all of spaces.		

Source: Irwin Altman & Daniel Stokols (Handbook of Environment Psychology Vol 1: 1992)

Intelligence as both cognitive aspect and high creativity will be growth consecutively (Hurlock: 1990). There are also positive linkage between intelligence and creativity. Thus, creativity in creating "something new" depends upon general knowledge which has been accepted.

Meanwhile, Munandar (1990) explains, that creativity is ability to create new combination based on data, information or elements. Creativity also has the real meaning as ability to find various possibilities of answer for a problem, in quantity, rightness, and variation of answers.

Therefore, the question that should be answered are, how intelligent and creativity can be grown up, meanwhile the condition of facilities is still very restricted? Therefore, how far is facilities affect into the growth of students?

According to various researches and design experiences, there are various theories which have described requirements for education facilities. As an example, Lackney (2003) provides 33 Principles of Educational Design. On a part of all explanation

<sup>&</sup>lt;sup>3</sup> In Indonesia it is introduced as Taman Kanak-Kanak (TK)

<sup>&</sup>lt;sup>4</sup> In Indonesia it is introduced as Sekolah Dasar (SD)

<sup>&</sup>lt;sup>5</sup> In Indonesia those are introduced as SMP (Sekolah Menengah Pertama) and SMU (Sekolah Menengah Umum)

Lackney described about Principle for Primary Educational Space, it may be seen as the table below:

#### **Table 3 Principles of Educational Design**

#### A. Educational Facility Planning & Design Proces Principles

- 1: Maximize Collaboration in School Planning and Design
- 2: Build a Proactive Facility Management Program
- 3: Plan Schools as Neighbourhood-Scaled Community Learning Centres
- 4: Plan for Learning to Take Place Directly in the Community

#### B. Principles for Site & Building Organization

- 5: Create Smaller Schools
- 6: Respect Contextual Compatibility While Providing Design Diversity
- 7: Consider Home as a Template for School
- 8: Meander Circulation while Ensuring Supervision
- 9: Design for Safe Schools

## C. Principles for Primary Educational Space

- 10: Cluster Instructional Areas
- 11: Provide Space for Sharing Instructional Resources
- 12: Design for a Variety of Learning Groups and Space
- 13: Keep Class Sizes Small
- 14: Provide Resource-Rich Well-Defined Activity Pc kets
- Integrate Early Childhood Education into t e Community School
- 16: Provide a Home Base for Every Learner
- 17: Regard Teachers as Professionals
- 18: Provide Studios to Support Project-based Learning
- 19: Encourage Administrative Leadership by Dece tralizing Administrative Space

## D. Principles for Shared School and Communi y Facilities

- 20: Establish a Community Forum
- 21: Allow for Community Conferencing Space
- 22: Create Privacy Niches
- 23: Weave Together Virtual and Physical Learning Spaces

## E. Community Spaces

- 24: Provide Opportunities for Job Training
- 25: Provide Parent Information Centres
- 26: Provide Health Care Service Centres

#### F. Character of All Spaces

- Design Places with Respect for Scale and Developmental Need
- 28: Maximize Natural and Full-Spectrum Lighting
- 29: Design Healthy Buildings
- 30: Design for Appropriate Acoustics

#### G. Site Design and Outdoor Learning Spaces

- 31: Allow for Transitional Spaces Between Indoor and Outdoor Spaces
- 32: Establish a Variety of Outdoor Learning Environments
- 33: Separate Children and Pedestrians from Vehicles and Service

Source <a href="http://www.edfacilities.org/">http://www.edfacilities.org/</a>.

Meanwhile, Dale Lang (2003) suggests criteria of learning environment that simpler than the table

Essential Criteria for an Ideal Learning Environment explores whether schools and classroom spaces enhance or detract from the learning process. Notes that when planning or remodelling a classroom environment, a successful learning space requires that both the educator and designer understand and be aware of the following qualities: size, shape, and scale; acoustical quality and noise control; illumination and views; temperature, humidity, and ventilation; communications, electrical power, and technology; and material finishes, textures, and colours.

As more real condition, it is essential to be noticed, study cases and comparison studies, in order to know comparison between better primary education facilities with formal buildings of SD Inpres which often have similar style, from Sabang until Merauke.

#### **STUDY CASE**

#### Condition of Majority Primary Education Facilities in Indonesia

Classrooms which are to be line up and/or to be surround the field or to face to the street, it is often found since we were still in SD (Elementary School), even until SMU (Senior High School). SD building in our mind is drawn as a simple building with *pelana* or *perisai* roof, to be completed by name board in front of the school, made from wood or iron. There are only a small numbers of SDN (State Elementary School) which have better quality of design in building and in interior as well as in program.

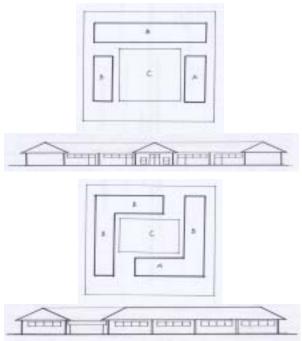








Picture 1. Condition of SDN Cisaranten Kidul In Riung Bandung, Bandung



A: Administration Offices

- B: Classrooms
- C: Field for ceremony or sport

Picture 2. Illustration of buildings pattern and form of SD Elementary School

Layout of room is so formal merely match with one way learning method, in which a teacher explains lecture and giving instruction and then students attending to his/her, listening carefully and working to answer some questions.



Majority layout of classroom





Often, facilities are so restricted

Picture 3. Illustration of Condition of Class

#### **MBE Project**

Managing Basic Education Project<sup>6</sup> (MBE Project) is a program aimed at improvement of primary education facilities. It is sponsored by US-AID, therefore on its process block grant from *Depdiknas* (National Education Ministry) or from foreign countries is given to *Komite Sekolah* (School Committee) and therefore managed by them.

Pictures below present how the processes of this program and also how the results.













Picture 4. Process and Results of MBE Project

Pictures above present how the process of renovating school buildings and surrounding. Therefore can also be seen how application of other methods in learning, such as: discussing, working in group, presentation in front of the class, and participation method. On the other words, it has been attempted to combine both one way learning method and two way learning method. Therefore, students have more chance to develop their skill as well as creativity.

Room designs seem more dynamic by interior layout of tables, chairs and other completion facilities. Noticed, it is more appropriately support discussing as well as working together (working within groups).

<sup>&</sup>lt;sup>6</sup> MBE is building on initiatives started under the *World Bank Basic Education Projects in 1997-8*. These developed school mapping, data collection and planning for use of resources, especially buildings and teachers, based on the data collected.

Student's works put in surround the classroom, to stimulate student's spirit to create more and more. Outdoor activity is included in this program, such as: visiting recreation or historical place or visiting traditional market as economical place.





Picture 5. Example of Outdoor Activities by MBE

## Modern Primary Education Facilities owned by Private Sector or Personal

Besides state elementary schools, there are a lot of primary educational facilities was built and managed by private sector. As an example in Bandung, there are exists, TK and SD Salman Al Farisi. This school have been completed with better learning method as well as facilities. In particular, curriculum of this is more offer chance towards the growth of intelligence as well as creativity. Child can be more possible to have good tendency in selecting among any possibilities as well as in taking decision.

Below are illustrations of condition.









Picture 6. Illustration of Modern Primary Education Facilities in Indonesia

Therefore, there is also exist, new tendency, namely: *Sekolah Alam* (Natural School). However, they are still rare, if we search on website it is not exceed from 3 on a city. Here are drawn how student's activities on two example *Sekolah Alam* in Bandung and Jakarta.





Sekolah Alam in The North of Bandung



Sekolah Alam in Ciganjur, Jakarta

Picture 7. Illustration of Natural School (Sekolah Alam)

However due to the high payment, unfortunately, schools as drawn above can only be enrolled by limited people.

Therefore, there are several examples of simpler Kindergartens which are exists in higher number. They are exists by considering market possibility (based on majority financial condition of community). It is not easy to increase the payment because consequently, likely they lack of candidate of students. May be said, their money therefore just enough to pay the teachers. Even, thus, TK Insani is never changing for 18 years, since the past (1988-2006).

#### PRELIMINARY STUDY TO PRIMARY EDUCATION FACILITIES (Lucy Yosita)



TK Insani-Bandung Located in Housing Environment, Riung Bandung



TK and Playgroup Al-Hambra Located in Housing Environment, Riung Bandung

#### Picture 8. Illustration of Majority of Kindergartens

## COMPARISON STUDIES: Primary Education Facilities In Developed Countries

This part is analysis to several examples of primary education facilities in foreign countries. In foreign countries mainly in developed countries, primary education facilities have adequately fulfilled more complete prerequisites. They have a better consideration to essential factors which influence to the growth of children. Following are various illustrations described on five significant aspects distilled from several theories within previous part. On the other word, these are analyzed based on essential aspects which more vividly perform encompasses: (1) Form and Colour, (2) Layout, (3) Equipment, (4) Completion Facility and (5) Curriculum.

#### Form and Colour in Building and Interior



Howard E. Hollingsworth Elementary School 1776 E. Ogden Ave., Las Vegas NV



Reed School Reed Union School District Tiburon, California



Briargrove Elementary School 6145 San Felipe



Wendell P. Williams Elementary School Last Vegas

Planning primary education environment have to consider functional principal aspects also should consider creativity of design in form, colour and composition. All of these should optimally be applied in designing building, site plan, and also interior.



Radnor Elementary School, Pennylvania Railroad Harry Pettoni, REFP, as director of studio Gilbert Architects Inc.

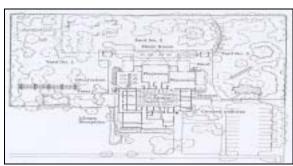


Reed School Reed Union School District, Tiburon, California

Interior with creative design in space, form, detail as well as colour, applied on classroom design or another room besides of class.

## Picture 9. Form and Colour in Building and Interior of Primary Education Facilities in Developed Countries

#### Layout



Dynamic layout of space in primary education environment
There is harmony and balance between learning activity and
experiment activity (trying to practice much more freely) by
providing playroom, atrium, yard 1, 2 and 3. There is to be
provided music room as an activity which also supports education.
Location: Bing Nursery School, Stanford, California
Architect and site planner: Clark, Royston, and friends



On example above it is provided enough barrier between school's building and noisy areas: the road, drop off area and parking area, so that noise can to be minimized. Classroom, as space for transforming knowledge get more priority while electing location. Then, there are completed with: sport field and play field, as supporting facilities besides of indoor facilities within school building.

Location: Reed School Reed Union School District, Tiburon, California

Picture 10. Layout of Primary Education Facilities in Progressing countries

#### **Equipments**

There is especially presents several examples of furniture within primary education facilities, those might led us, how to select and also design furniture that adjust with child's body anatomy, and their activities. Besides these, considering flexibility of motion and the last but not least, considering how to stimulate their thought and activity as well as to encourage their creativity.



Furniture design is considering child's body anatomy



The Columbus School Medellin, Colombia Considering of flexibility of motion within learning,



Playing in Sand Sand and Deck at Kihikihi Kindergarten



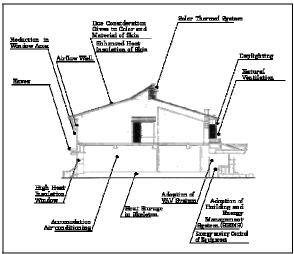
Playing by movable equipment Swing Bridge at Otorohanga Kindergarten

Pictures above are examples of the completion of outdoor furniture. It should more give chance to trying (experiment, adventure, etc).

# Picture 11. Equipments of Primary Education Facilities in Developed Countries

## **Completion Facilities**

Education facilities have to have complete facilities then these would be more pleasant for students while learning is going on. Several examples below are show education facilities provided with completion facilities such as: carpet, AC, acoustic, application of technology, etc.



Nihonmatsu Municipal Harase Elementary School Location: Harase-saiki, Nihonmatsu, Fukushima Architect: Hiraki Architecture Design Office



Lighting system in the room New Minnesota Elementary School Design by: The American Institute of Architects



Carpet, and lighting system in the room New Minnesota Elementary School Design by: The American Institute of Architects



Animation system in playing facilities for children Game corner for children at Cafe Ullreich



Lighting system and colour arrangement in playing facilities for children Game corner for children at Cafe Ullreich

Picture 12. Completion Facilities of Primary Education Facilities in Developed Countries

#### Curriculum

The last but not least is requirement of consideration into curriculum of primary education. Curriculum is also certainly associated with other prior aspects ((5.1)-(5.4)) because it will relate with providing facilities in where learning activities taken place. On the other words, a space which being designed should also considering activities that will further occur here, either for indoor activities or outdoor activities. Meanwhile activities actually depend upon curriculum.

Here an example, presents schedule of Elementary School in Japan.

Table 4. Sample of Schedule of Elementary School in Japan

	Monday	Tuesday	Wednesday	Thursday	Friday
1	Science	Japanese	Home	Art	Social Studies
			Economics		
2	Science	Math	Math	Art	General
					Studies
3	Physical	Music	Physical	Math	Math
	Education		Education		
4	Math	Social Studies	Japanese	Social	Japanese
				Studies	1
			Lunch		
5	Japanese	General Studies	Music	Japanese	Ethic
	•	General Studies		Club and	
				Committee	
				meetings	

Sumber: http://web-jpn.org/kidsweb/japan/schools.html

On above we can notice how the importance of Cultural (Japanese), General Studies and Social Studies are to be given appropriately attention. Japanese has the highest proportion (5 hours/ week), the second is Math (4 hours/ week), therefore the third is General Studies, and Social Studies (3 hours/ week).

Other example quoted from explanation of curriculum of The Columbus School in Medellin, Colombia:

All grades 2 to 5 homeroom teachers are accountable for teaching and assessing a core curriculum of Language Arts, Math, Science, Social Studies and Computers, in English. Additionally, students have weekly classes in Integrated Arts, Physical Education, Religion, and Spanish/ Colombian Social Studies, with specialist teachers. Our curriculum is based on standards, benchmarks and essential agreements for each subject and grade, developed by our staff. Annually, we review and revise as necessary to ensure that a meaningful and coherent scope and sequence of skills, concepts, knowledge and attitudes are systematically being taught and assessed. Curriculum maps developed by teachers at each grade level identify themes and units taught, and unit plans are continually being refined by teacher teams. This year, we are in our second year of addressing five cross-curricular, "Big Learner Outcomes" partly initiated to extend and enrich learning inherent in student portfolios and student-led conferences, two long-standing practices at our school. We are in our third year using a standards-referenced report card that addresses our academic curriculum as well as habits of mind/dispositions, utilizing a four-point developmental continuum. We endeavour to employ a 'backward-design planning' model in unit design (first determine specific curriculum outcomes desired, then design assessments, and finally, determine activities).

# Source: Curriculum of The Columbus School-Medellin, Colombia

Underlined words above show comprehensive scope of knowledge and better consideration on toward sustainability of entirely step within education process. Therefore, these pictures below present examples of places and activities of students in term applying curriculum that considering applicative aspects:





Location: London Borough of Southwark Often these locations visits by students as part of field visit which supporting the lecture

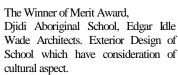




Children are planting flowers and the others plants, in Programme Grant Applications to Yorkshire Bank's Conservation Award Scheme supporting by Forum for Education Arts Development and an Arts for Everyone Lottery (1997).

Supporting Natural Science Knowledge for example: Biology







Developing creativity in playing music in schools, either modern music or traditional music





Kid Centre's Camp Before and After School for Pre School and K-6th grade.

As part of way to encourage the nearness to nature: land, water, air, etc.

Picture 13. Activities influenced by Curriculum of Primary Education Facilities in Developed Countries

### **ANALYSIS**

Primary Education Facilities (or Primary Education Environment) is essential to get appropriate thought. According to various theories of the growth of human, step of age from 0 to 12 years is important step will contribute towards further steps. A part of children have opportunity to follow education in Playgroup or Kindergarten (Pre-School) before they pursue to Elementary School (Sekolah Dasar). However, in fact in our country, due to one and more factors, majority of children enrol directly to elementary school<sup>7</sup>.

From explanation on the last part (5.1 - 5.5) can be noticed differences between primary education facilities in Indonesia with developed countries. Meanwhile, on the other hand, related to theory of the growth of child's ability, the completion of learning facilities is actually as important factor aim at the purpose of education process. If design of building, interior and also outdoor area to be created more dynamic of form, colour and the completion of tools, therefore, it will be probable to stimulate activities more dynamic as well as to support the growth of students.

However, in fact, majority of primary schools around of us just have formal and simple layout to be completed with pictures of president and vice president, lesson schedule, and working schedule hanging on the wall. Walls, floors, ceilings and also furniture are so simple. Moreover, it is not rare the walls have broken or the walls merely made of bamboo, or even the roofs have been leak. There are exists, primary schools with complete facilities but those can only be enrolled by restricted children of rich families.

not be automatically and immediately appear.

Whitebrook, Howes, and Phillips (1989) point out

Children's ability would not certainly growth

The builder of State Elementary School (Sekolah Dasar Negeri) in Indonesia is government (Dinas Pekerjaan Umum (PU). The same as Indonesia, various schools in foreign countries are also built by government. Nevertheless, their governments have had better consideration toward education and its facilities. There are also many schools in Indonesia which were built by private actors, but those are higher in payment. On the other hand, private sectors in foreign countries have been properly grown up due to more establish of capital accumulation among communities (more high level of economical factor). Majority of their communities also have higher income, so that enable them to pay expensive school payment. Meanwhile, in Indonesia majority of children are still categorized as students whose parents with restricted income, so that they must spend so hard to pay for education and also to buy various school needs for their children. In their daily life, they play only with all of restricted condition. Going to recreation place can indeed be enjoyed by a few of children. However, not all of children are so lucky like the others else. As we know, there is introduced, ironically terminology within our communities, "just for eat, is so hard".

It exists, Managing Basic Education Program (MBE-Program) sponsored by USAID (US-Aid), held since 1997. This program is has purpose to improve education facilities as well as learning style. It has also going on in many elementary schools in Indonesia, but it is still higher numbers of elementary schools which do not accept this program. The more so, this program is aid, so actually we can not have excessive expectation to this. The question is: Can we going to improve primary education facilities "independently", not merely depend upon aid from foreign countries? On the other words, how innovative learning strategy as well as method can certainly be included appropriately within Indonesia's curriculum, not only as temporal action ("ceremonial only") which can be disappear by the time?

within so adequate and also complete facilities. Not scarce, skills can be developed due to constraint or restriction. By these, then creativity is basically possible to appear. On the other words, a child can be stimulated to be creative by constraint such as stressing condition. Stress is also as a part of challenges. Breaking challenge is one of ways of problem solving which included in creative process. Nevertheless, very restricted condition is not always conducive. Based on many researches and experiences, can be noticed that human resources could

those can only be enrolled by restricted children of rich families.

7 In foreign countries, majority of Early School Facilities or Pre-School included in Elementary School.

that it is widely accepted that a developmentally appropriate—one with well trained and consistent staff in sufficient numbers moderately sized groupings of children and proper equipment and activities, will lead to good child care.

As a simple analogy, a village's child would have higher probability to adventure on various challenges in natural environment. In this case, environment is as media in where activity taken place. The more so, if think this in term to elaborate integration among the whole of sense abilities (look at theory review page 1 and 2), it will require various consideration. Furthermore Philips, Scarr, and Mc. Cartney (1989) point out that, children in higher centres have shown more advance quality communication skills and verbal intelligence and more positive behaviour and task orientation. In principle, breaking challenge couldn't to be just naturally appear, will be better if passing formal education which to be provided with obvious strategy, process and purpose.

It is also necessary to study elementary schools which were built by private sector or look at MBE program. It is found that child can probably grown up better. Learning process and its facility also could to be adjusted become more exciting and children can feel more pleasant by education.

Therefore, it is also essential to consider analysis into numerous previous theories and previous researches. For example as More et al (1989) point out that mixing of ages in smaller centres offered opportunity to serve as models and to enrich overall play possibilities. Another is a study by Rohe and Nuffer (1977) have shown that while increasing spatial density by reducing space tended to increase aggressive behaviour, sheltering activity areas by inserting partitions increased cooperative behaviour. Therefore Sanoff (1994) points out that the design of school requires the development of a building program that can spatially respond to the developmental goals of the teachers of young children as well as to the literature on children development and behaviour. In sum, not only standards which should be studied, but also smart and creative designs should be explored.

The last but not least which also essential is consideration of curriculum aspect. As we know, that architecture is never can be separated with activities which happened on a building. Actually, curriculum of primary education should have enough consideration to application aspects (student's activities) besides of theoretical aspect. On the other hand, it is necessary to look at Japanese education style as an example, in which so consistent to considering their local culture (Japanese). Though Japan has reached modernization steps, but this of communities do not become leave their local culture aspect. Therefore, no

doubt that it is affect to the development of their specific identity although so highly globalization streams, they could reach strong country with special character of community.

Meanwhile Indonesia's curriculum has no ripe consideration, the more so into cultural aspect. Even, the modern schools around of us do not have adequate consideration as ripe as Japan's curriculum. Perhaps the facilities of modern schools are more complete than Sekolah Dasar Negeri (State Elementary Schools), however they "only" emphasize to prestigious lesson, for example studying more to technology or foreign language.

We should also compare the growth of human resource in Indonesia with several foreign countries which is categorized "young" in getting their Independence Day (below of 100 years), for example: Korea, Singapore or Malaysia. These countries, noticed, have significantly achieved progress in the growth of quality of human resources, which then affect to physical progress of their country.

It is obviously essential to considering infestation on generation, mostly for improvement of state elementary schools throughout Indonesia. Consideration to the other parts such as: economy, politic, law, etc are also important. Nevertheless, all of those would have smaller chance to grow and sustain without to be supported with appropriate quality of human resources. Ideas as well as thoughts in advance for various parts in the country are actually affected by skill of human resources.

In short, we have to emphasize on think of primary education facilities throughout of Indonesia mainly state elementary schools because those are as expectation for majority of our communities.

#### **CONCLUSION**

Thus is all of this descriptive writing. However, this is brief writing that explaining problems and then comparing those with theories and several relevant cases, by this, therefore to be expected, we could more obviously regard the problem.

It is certainly required further analysis to know problems more detail, know how to evaluate primary education facilities in Indonesia and also know better designs. For example, it is should be done analysis to student's behaviour in spaces, included in classroom, in the other school's rooms besides classroom, and also in out of the classrooms<sup>8</sup>. Furthermore, it is essential to compare accurately among several cases of elementary schools as well as to know the whole of more completely processes.

 $<sup>^{8}</sup>$  In playground around of building school or in natural environment as part of object of study.

#### THE EDGE NOTES

When various questions within my brain, involving about where Indonesia will be?

However when little children pass my house every day, my heart say that it exists future generation besides us

We as well as they will still bring this country certainly go ahead.

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