

# PROCEEDING INTERNATIONAL CONFERENCE ON EDUCATION

**“Character Building Through  
Precisely International Education”**

**Bandung, 12<sup>th</sup> October 2017**

**Presenter :**



**FAKULTAS KEGURUAN DAN ILMU PENDIDIKAN  
UNIVERSITAS PASUNDAN**

Jl. Tamansari No. 6 - 8 Tamansari Bandung  
Web : <http://fkip.unpas.ac.id> e-mail : [fkip@unpas.ac.id](mailto:fkip@unpas.ac.id)

## **PREFACE**

I would like to express our deepest gratitude to Allah the Almighty God for all the grace and the guidance that has been given to all of us. This is the first time the International Conference on Education is being held by PB Paguyuban Pasundan and FKIP Unpas. I extend a warm welcome to all members of this conference, invited speakers and guests. I sincerely hope you will find the programme that has been put together satisfactory and the presentations useful to you. I urge you to make use of the opportunity here provided to establish useful networks.

We have chosen to focus on “Character Building Through Pricely International Education” as the theme of the conference. The book of conference contains 36 selected articles from all participants. The participants come from academia as lecturers and researchers.

The International conference has been made to be held as the realization of cooperation between PB Paguyuban Pasundan, and FKIP Universitas Pasundan. Hopefully, these articles may give benefit to all of us for the development of education. In addition, it is also expected to be a reference for the nation and state-building efforts so that science and technology becomes a strong pillar in the face of the ASEAN Economic Community.

Lastly, we would like to acknowledge our hard-working friends from the committees who have been so enthusiastic in ensuring the detail of the conference. We do appreciate the whole lot you have worked on and look forward to the successful conference.

Sincerely yours,  
Bandung, 12<sup>th</sup> October 2017

**Dr. H. Dadang Mulyana, M.Si.**  
**Chairman Committee**  
**Dean FKIP Universitas Pasundan**

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**PROCEEDING**

**INTERNATIONAL CONFERENCE ON  
EDUCATION AND CALL FOR PAPER  
“CHARACTER BUILDING THROUGH  
PRICESLY INTERNATIONAL EDUCATION”**

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## **STYLISTICS STUDY ON WOMEN CHARACTER IN INDONESIAN NOVEL (SITI NURBAYA BY MARAH RUSLI) IN THE PERIOD BEFORE INDEPENDENCE**

R. Panca Pertiwi Hidayati<sup>1</sup>& Any Budiarti<sup>2</sup>

<sup>1&2</sup> Program Studi Pendidikan Bahasa dan Sastra Indonesia FKIP Pasundan University,  
Bandung, Indonesia

<sup>1</sup> panca.pertiwi.hidayati@unpas.ac.id & <sup>2</sup> any.budiarti@unpas.ac.id

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**Abstract.** The novel as a literary work is one of the literacy tool which is favoured by readers. Through literature, a reader can learn the characters representation presented by the author. Stylistics study used by the author is able to interpret and describe the character's style. So it can build an understanding, that the women characters in the period before independence is limited and sackled by customs in the socio-cultural context. Recognition for women right nowadays must be appreciated and utilized for the people, nation and state welfare. Therefore, Indonesian women characters at present is a long journey of Indonesian women struggle in the past. It is represented in this novel.

**Keywords:** language style, characterization, character, character, Siti Nurbaya, stylistics.

---

### **LINTRODUCTION**

Indonesian literature is always related to literature expression, both oral and written because literature as a form of cultural products can not be separated from its writer creations that tend to be dynamic; in the sense of literary expression that is possible to change from era to era. This is consistent with the Teeuw (1982: 9) statement that explained that the object of a literature research is dynamic determined by different terms and societal norms.

As an act of communication, literature is a form of typical communication. This typical appears on the author language expression.

One of the frequent symptoms changes came into public discourse is the birth of female writers with their literary works that are considered to be "offers novelty," "demand in the market," and some "emancipated." Many debates about the woman author attract some authors to discuss the man author's point of view towards quality of women critical through women characters in his writing. Particularly, the men author's point of view in the period before Independence.

Based on the above background, the research questions formulated are as follows.



1. How does the characterization of woman character in the *Siti Nurbaya Novel* ?
2. Is the meaning of each expression has an influence on the characterizations of woman characters in accordance with the theme of the *Siti Nurbaya Novel* ?
3. Which women character expressed by the characters expression towards the women existence in the *Siti Nurbaya Novel* ?

## **II. THEORITICAL BACKGROUND**

### **A. Study Stylistics Focusing on Creative Thinking Dimensions**

Syihabuddin Qalyubi (Muzaki, 2015: 5) simply defines that stylistics is a linguistic study with style as an object. While *style* is a language style used by a person in a particular context and purpose. In the world of rhetoric language, style is also known as *style*. Language style or style itself becomes a part of diction or choice of words discussed about right or unright words, phrases, or clauses at a particular situation. Muzaki (2015: 44) said that stylistics study literature on visible aspects, such as the choice of words, sentences, phonology etc on. Thus, it can be said, that stylistics focus more on the intrinsic aspects such as phonological problem, the choice of words or sentences, the deviation of meaning impact on the changing of meaning, without judgment or give an assessment.

Meanwhile, Ratna (2014: 16) pointed out that the main object of

stylistics analysis is text or discourse. Moreover, in a contemporary theory, stylistics analysis placed between language and literature to provide a more dominant position on the analysis of literary works. Practically, terms, particularly in literary works, the stylistics scope is the description of language use. In connection with that, the basic study is more focused on the review of the author's language style in expressing the basic story. The Disclosure of main story through a review of the author's style will show the dimensions of the author creative thinking. David (2007: 133) defines that creative thinking is a new invention to do anything. Meanwhile, Santrock (2008: 366) saw a creativity as thinking ability about things in new ways, unusual, and make a unique problem solution .

Drevdahl in Hurlock (2010: 5) defines creativity as a person ability to produce a composition, product, or any idea basically a new and unknown creators. It can be an imaginative activity or synthesis of thought whose results is not only a summarise, it may include the creation of new patterns and combined information derived from previous experience and transplantation of an old relationship to a new situations, and may include the creation of new correlation, with its determind purpose and not only fantasy, although the result was perfect and complete. It also may take the form of products of art, literature,



scientific, or may be procedural and methodological.

## **B. Literature Content**

Literature as a form of typical communication act, has a moisture content of the infinity of life and human life. The content of literature can be varied, as proposed by Ann Jefferson (Hidayati, 2009: 9), *"The questons of ideas in literature could be regarded as one aspect of the question of reality, being part of literature's 'content', and it was an issue that the formalist themselves were particularly keen to confort."* The problem of ideas in literature can be considered as one aspect of reality, which is a part of literature 'content', and is an issue that would like to face by the formalists themselves. Thus, the idea in literature becomes a part of literature content.

The idea as a literary contents can describe their thoughts, feelings, wishes, and reflections of the author. The author's idea is arranged based on a series of events linked logically and chronologically. Such conditions can occur in different types of literature.

The series of events that contain the author's ideas appear in language choice expression, so from the language used emerge the of painting author language typical context.

## **C. Character and Characterization**

Character and characterization is one of the intrinsic elements

presented in an author's story. Characters in the story should consider himself as human being, as suggested by Forster (Hidayati, 2009: 31), "The actors in a story are, or pretend to be, human being." In addition, the characters first of all characterized by how they view the happenness around them. In this case, Luxemburg (Dick Hartoko, 1989: 137) provides a way to describe the complete character through the following questions.

1. How do leaders vocalized/what does it means ? (Vocalisation is a relationship between elements of the event with the presented vision)
2. What is being vicalized ? What can be seen ?
3. By whom he himself vocalized and how?
4. How is his behavior?

These characters can be revealed by some of the above questions and can also be done through direct questions, events, inner monologue, response to the statements or actions of other characters, and through allegory or satire.

Hidayati (2009: 32) suggests the following method as the character description.

1. Discursive methods, ie the way the authors describe the characterization of the character in a way to mention the quality of the characters one by one and clearly, accompanied by statutes agreed or disagreed by author to the



characterization of created character.

2. Dramatic method, i.e the the authors way who allowed the characters to express themselves to the reader through the words and style of their own. In this case a dramatic method described the actual circumstances and more invite the reader active participation in the story.
3. contextual method, i.e a way of describing the character in a verbal context
4. mixed methods, ie the author's way in describing the character characterization by using a combination of two ways or methods.

Another way to describe a fictional character is suggested by Tarin (1984: 133) :

1. *physical description* (describe the shape of the character physic);
2. *portrayal of thought stream or of concious though* (depicting the character's mind or what comes to mind);
3. *reactions to events* (depicting character reaction to the events);
4. *direct author analysis* (authors directly analyz the character of the character);
5. *discuccion of environment* (authors depict nature around the character. For example, by describing character, room condition so that the reader will get the characters impression such as slob, lazy, neat, and so on).

6. *reactions of others about / to character* (the author describes how is the supporting characters point of views in a story the main character).

All of methods provides an alternative in analyzing the characters and characterization. Method used by author to describe the character of the fictional character are vary.The best way is that the author describes the character for the character himself consisently, and in practice there is no single way in describing the fictional characterizations.

Thus, it can be said that the characters in fiction is to get a poses, i.e character/ characterization. Characterization is authors' way to describe his characters.

### **III. RESEARCH METHODS**

The method used in this study is descriptive. Descriptive method used to create sense systematically, factually, and actuality about language facts contained in the intrinsic structure of *Siti Nurbaya Novel* the work of Marah Rusli. The source of data is a character description and characterization of women in the novel include:

1. The language situation of the characters' speech act
2. The situation the world faces a situation depicted fictional author in the context of the story, through the answers to the following



questions: face context at fiction world describe by authors in the story context

- a. How the world of fiction was viewed?
- b. With whom we view it?
- c. What images can be seen from the results of that view?

Data analysis techniques include:

1. analyzing, detailizing and characterics of each aspect being studied by describing in accordance with the formulation of the problem;
2. data identification by plotting the data collected through labeling of original data, labeling, registrating pages, and recording of data types;
3. categorizing data into the structure of character category and characterization and contents expressed women character who become character in *Siti Nurbaya Novel*;
4. category examination that still require additional data;
5. The data interpretation that has been chategorized.

#### **IV. RESULTS AND DISCUSSION**

The results and discussion of the following research questions are as following

##### **A. Analysis of the character and women character in the *Siti Nurbaya Novel***

The main characters in *Siti Nurbaya* are Samsulbahri and Siti

Nurbaya. The protagonist character in this story is King Sulaeman, Sutan Mahmud, Ali, Ailmah, Siti Maryam, Bakhtiar and Arifin. While the antagonist character are Datuk Meringgih, and his followers Sutan Hamzah, and Sitti Rubiah.

In general, the authors of *Siti Nurbaya* novel use discursive methods. It is said that, because the author always describe in detail about the characterization quality of the characters in this story. This quality is described directly by the authors analyzing the characterizations of the characters. In addition, the authors explanation is done by describing other reaction to other characters.

Since the characters who studied in this story are the women characters, so that the study is only include women characters as mentioned above.

##### **1. Siti Nurbaya**

This character described by the author as follows.

- 1) Temannya yang dipanggil tadi ialah Sitti Nurbaya, anak Baginda Sulaiman, seorang saudagar kaya di Padang, yang mempunyai beberapa toko yang besar-besar, kebun yang lebar-lebar, serta beberapa perahu di laut, untuk pembawa perdagangannya melalui lautan. Anak ini pun seorang gadis, yang dapat dikatakan tiada bercacat, karena bukan rupanya saja yang cantik, tetapi kelakuan





dan adatnya, tertib dan sopannya, serta kebaikan hatinya, tiadalah kurang daripada kecantikan parasnya.

- 2) Oleh sebab ia anak seorang yang kaya dan karena ia cerdik dan pandai pula, ia disukai dan disayangi pula oleh teman-temannya. Hanya ayahnya, ukan seorang yang berasal tinggi.....

The above description showed us that Sitti Nurbaya is a girl who is beautiful, clever and polite. Although he was a wealthy merchant's daughter, but never discriminate her friends, so she is loved by her friends.

Siti Nurbaya has also steadfast and patient character. Her fortitude and patience is shown by Sitti when she accept her destiny by marrying Datuk Meringgih, and all the trials that happened to her marriage with Datuk Meringgih did not change her love to Samsulbahri. Her loyalty is steady and stedfast and buried in the bottom of her heart till the end of her life.

The below description shows the characterization of Sitti Nurbaya who is pious/ sholehah.

Tatkala ayahku melihat halku sedmikian itu, air matanya tak dapat ditahannya, sehingga keluar berlinang-linang jatuh ke pipinya, lalu dicitumnya kepalaku sambil berkata, "Nurbaya, sekali-kali aku tiada berniat hendak memaksa engkau. Jika tak sudi engkau, sudahlah; takmengapa....

## 2. Siti Maryam

Sitti Maryam is a character who plays as Samsulbahri mother. He was impressed as a kind, gentle, loving, physically weak, easy compassion and come from ordinary people. The following quote implies the characterizations of Sitti Maryam characters.

Samsulbahri tiada menyahut sepatahpun perkataan ayahnya ini, melainkan tunduk berduka cita. Hanya ibunyalah yang menangis tatkala mendengar anaknya diusir oleh suaminya.

.....

Setelah berangkat Sutan Mahmud, dibujuklah Samsulbahri oleh ibunya dengan beberapa perkataan manis-manis, supaya jangan dimasukannya ke dalam hatinya, amarah ayahnya itu. Akan tetapi Samsulbahri tiada menyahut pula melainkan minta masuk ke biliknya, karena sangat mengantuk, hendak tidur katanya. Mendengar permintaan anaknya ini hilanglah kuatir Siti Maryam. Pada sangkanya, tiada diindahkan Samsulbahri amarah ayahnya tadi.

....

Ketika diketahui oelh ibunya pada keesokan harinya, bahwa anaknya tak ada lagi, ributlah ia menyuruh cari ke sana kemari, tetapi tiadalah ia bertemu, dan seorang pun tiada tahu ke mana perginya. Sebab sudah hatinya, berangkatlah ia



tiga heri kemudian ke Padang Panjang, ke rumah saudaranya. Di sana pun rupanya tak dapat diliput hatinya, sehingga badannya makin lama makin kurus dan akhirnya jatuhlah ia sakit, karena bercintakan anaknya (1992: 156-157).

....

Pada keesokan harinya, tatkala sampai kabar kematian Nurbaya ini kepada Siti Maryam, yang sedang sakit keras di Kampung Sebelah, karena terkejut ditinggalkan anaknya Samsu, tiba-tiba berpulanglah pula ibu Samsulbahri ini, sebab kabar itu rupanya sangat menyedihkan hatinya (1992: 214).

...

### 3. Alimah

Alimah is a character who plays as Siti Nurbaya's cousin. She is impressed by his compassion and loving towards her cousin who never stops feeling sorrow. In addition, she has a strong concern for Siti Nurbaya, she was impressed as someone who keeps the principle of life. She is against polygamy practiced by her communities. The following quotation illustrates her courage about it.

“Sungguhpun demikian, penanggungan itu beumlah seberapa, jika dibandingkan dengan penanggungan dipermadukan,” kata Alimah, “Au lebih suka dipukul, dikurung, atau dihinakan daripada

dipermadukan.” “Tentu,” jawab Nurbaya, “Itulah sebabnya agaknya, engkau sampai bercerai dengan suamimu.” “Memang,” kata Alimah (1992: 206).

Alimah's affection for Siti Nurbaya is expressed in her statement as follows.

“Nur, jangan berkata begitu!” jawab Alimah, “atas pekerjaanku ini, tak perlu kau minta terima kasih, sebab aku berbuat demikian, bukan karena berharap barang sesuatu daripadamu sebagai pembalasan, tetapi semata-mata sebab aku sangat kasih dan sayang kepadamu. Maklumlah, aku ini sebagai engkau pula, tiada bersaudara, melainkan hidup manunggal diri. Oleh sebab itu pada perasaanku, engkau adalah adikku dunia akhirat, tempat aku berganung, tempat aku melindungi diri dan menyerahkan nasibku, yang jauh daripada baik ini. Tambahan pula, seharusnya aku membantu engkau dalam segala halmu. Jika tiada aku, siapa lagi?” kata Siti Alimah pula, sambil mengurut-urut rambut dan tangan Siti Nurbaya (1992: 167).

### 4. Siti Rubiah

This person plays as Sutan Mahmud's brother who is cynical, egoist, selfish, thinks about herself, proud of her nation, underestimates lower class people, not responsible, proud of her tribe's negative habits, and tends to be jealous of other happiness and pleasure. One of her bad





characteristic showed by the author as follows. Sitti Rubiah was talking with Sutan Hamzah, her brother.

Coba lihat hamba! Walaupun tiada mempunyai pekerjaan, makan tak kurang, kocek pun tak kosong. Apabila hamba datang ke rumah istri hamba, makanan yang lezat cita rasanya telah tersedia; pakaian yang bersih pun demikian pula. Jika berjalan, kocek diisi: rokok dan segala keperluan hamba yang lain diberi. Ingin hamba hendak berbendi pada petang hari, bendi mentuahamba telah tersedia; segala kesukaan diadakan, segala kemauan tiada dilarang. Apa lagi yang dikehendaki? Bukankah bodoh, laki-laki yang tak suka kepada adat istiadat yang sedemikian?"

“Memang enngkaulah saudaraku yang sesungguhnya-sungguhnya, membangkitkan batang terendam, yang tahu adat istiadat dan menjunjung tinggi pusaka nenek moyang kita dan tahu menghargakan ketinggian kebangsawanan kita dan menjalankan kewajiban kepada saudara dan kemankannya,” kata putri Rubiah memuji-muji adiknya itu.

Based on the above quotion, it can be concluded that the women characters are simple and flat in categorized . The characterizations in this story tend not to change and develop. The characters temperament

studied by the readers since the initial description. The readers can easily recognize the characterizations of the characters becaus they have been informed about it so that they don't need to discover from the characterization process through their behaviour in the story.

Each character has been formulated in such a way olepa by the author. For example, Datuk Meringgih has been formulated from beginning to end as a character who is cruel, ruthless, cunning, and miserly. This formula is applied for other characters.

#### **B. Analysis on the meaning of influenced characters utterance towards the characterizations of women characters in accordance with *Sitti Nurbaya* novel theme**

Speech act situation will be analyzed in the paper include of the description of language situation used by the author through women characters utterance. The women characters in this novel are correspond to the social structure that become the focus of a *Sitti Nurbaya* setting .

The social structure of the community described by the author is focused on the upper middle class society. Two polar contradicted is between the aristocratic and ordinary class society. Through the dialog between them, the language ethics and their though intended by the author can be described. Here are some language situations presented



from speech act events in *Sitti Nurbaya Novel*.

1. The author language style in describing language situation between Sitti Nurbaya and her peers

“Nyaris aku kesiangan, Sam,” kata Nurbaya....”Hai! Nurbaya mengikut pula?” Sebab dilihatnya Nurbaya ada bersama-sama Samsu. “Baiklah! Lebih banyak orang lebih girang.” “Mengapa Tiar? Tak bolehkah aku mengikut, sebab aku perempuan?” kata Nurbaya, sambil tersenyum (1992: 30).

“Ya, benar katamu itu, Nur,” jawab Bakhtiar dengan kuat rupanya, serasa benar akan terjadi hal itu atas dirinya. “Yang sebaik-baiknya janganlah aku bertemu dengan buah jahanam itu dan biarlah ibu-bapakku hidup sampai aku dapat pekerjaan, yang dapat memberi penghidupan kepadaku.” “Sebenarnya orang yang menjadi pegawai pemerintah,” kata Samsu pua, seakan-akan hendak melenyapkan ingatan yang kurang enak itu dari dalam hati Bakhtiar, “dalam pekerjaannya harus dapat berbuat dirinya seperti suatu mesin, yang sebetul-betulnya menjalankan dan memperbuat segala apa yang harus dipderbuatnya. Artinya, tiada pandang-memandang, tiada mebaruh kasihan, tiada dapat tergoda oleh uang atau pemberian dan lain-lain sebagainya.”

“Tetapi adakah orang yang sedemikian?” tanya Arifin. (1992: 40).

Setelah berpikir sejauh, berkatalah ia, “Baik benar; tetapi di kantor pos kita kelak harus bercerai, sebab ada maksudku yang lain.” Walaupun Arifin heran mendengar jawab Samsu ini, karena belum pernah ia berbuat sesuatu yang tiada boleh diketahuinya, tetapi dengan tersenyum dijawabnya perkataan Samsu itu. “Tentu aku tiada akan mengalangi engkau, bila engkau ada keperluan yang lain.”

Meskipun ia tersenyum, tetapi hatinya tiada senang. Bukan saja karena melihat perubahan kelakuan Samsu, tetapi karena nyata kepadanya, ....., Samsu baru saja menangis (1992: 225-226).

2. The language style in describing language situation between two brothers in disputing a problem

Tatkala dilihatnya Sutan Mahmud duduk di atas kursi lalu ditegurinya, “Engkau, Penghulu! Alangkah besar hatiku melihat engkau ada pula di rumah ini; karena telah sekian lama engkau tiada datang kemari. Hampir aku bersangka, engkau telah lupa kepada kami.”

“Bukan demikian Kakanda! Maklumlah hal kami pegawai pemerintah! Pekerjaan tiada berkeputusan: rodi, ronda, perkara jalan, perkara polisi, perkara ini



dan itu, tidak berhenti,”jawab Sutan Mahmud.

“Ya, tentu; tetapi...Rukiah, pergilah masak air panas, untuk mamandamu ini! Masih adakah kue-kue dalam lemari?”

....

“Ah, tak usah....,” kata Sutan Mahmud pula.

“Mengapa tidak sudi lagi engkau makan di sini? Tidakkah percaya lagi engkau kepada saudaramu? tanya perempuan itu, seraya mengangkat mukanya, sebagai hendak marah (1992: 20).

“Pekasih apakah yang telah diberikan istrimu itu kepadamu, tidaklah kuketahui; hingga tidak tertinggal olehmu perempuan itu; sebagai telah terikat kaki tanganmu olehnya. Sekalian Penghulu di Padang ini beristri dua tiga sampai empat orang. Hanya engkau sendiri;ah yang dari dahulu, hanya perempuan itu saja istrimutidak berganti-ganti....” (1992: 22).

3. The author language style in describing manners between a husband, wife and children when having meal in an ordinary class.

Tatkala itu kelihatan Alimah dan Nurbaya menyediakan makanan di atas tikar rumput, yang telah dialas dengan kain putih, terbentang di tengah rumah. Tiada berapa lamanya kemudian daripada itu, duduklah Ahmad

Maulana makan, dihadapi istrinya; sedang Alimah dan Nurbaya duduk jauh sedikit dari sana, sebagai menunggu, kalau-kalau Ahmad Maulana minta apa-apa.

....

Setelah keringlah air matanya, barulah ia keluar pula dan kelihatan olehnya mamandanya sudah selesai makan lalu membasuh tangannya.

“Alimah, coba ambilkan rokokku dari dalam bajuku!” kata Ahmad Maulana.

Alimah segera mengambil rokok itu dan memberikannya kepada ayahnya,

“Sekarang makanlah kamu sekalian!” kata Ahmad Maulana pula, sambil membakar rokoknya.

Alimah dan Nurbaya mendekatlah ke sana, lalu makan bersama-sama dengan Fatimah (1992: 191-192).

4. The author language style in describing a language situation between two youth in expressing love

“Nurbaya, dengarlah olehmu pantun ini:

bulan terang bulan purnama,  
nagasari disangka daun.

Jangan dikata bercerai lama,  
bercerai sehari rasa setahun.”

....

Mendengar perkataan dan pantun Samsu ini, terdiamlah Nurbaya, sambil menundukkan kepalanya, tidak berkata-kata sejurus



lamanya, sebagai malyu rasanya ia akan membukakan rahasia hatinya....”Sudikah engkau kelak menjadi istriku, apabila aku telah berpangkat dokter?”

“Masakan tak sudi,” sahut Nurbaya perlahan-lahan, sebagai takut mengeluarkan perkataan ini. Maka diciumlah oleh Samsu perlahan-lahan punggung tangan perawan ini.

....

“Sesungguhnya demikian rupanya,” jawab Nurbaya, sambil membalas pantun Samsu:

“Dari Medang ke pulau Banda,  
belajar lalu ke Bintuhan,  
Tiga bulan dikandung Bunda,  
Jodoh’lah ada pada Tuhan.”

5. The author language style in describing apeech act that indicated Sitti Nurbaya character in facing her life difficulties.

Tatkala kulihat ayahku akan dibawa ke penjara, sebagai seorang penjahat yang bersalah besar, gelaplah mataku dan hilanglah pikiranku dan dengan tiada diketahui, keluarlah aku, lalu berteriak “Jangan dipenjarakan ayahku! Biarlah aku jadi istri Datuk Meringgih!”

....

Sejak waktu itulah Samsu, aku jadi istri Datuk Meringgih. (1992:119).

6. The author language style in describing his views on woman existence seen from two sides (East and West)

“Sebuah lagi yang tak dapat kubenarkan pikiran perempuan dewasa ini, yaitu hendak menjabat pekerjaan laki-laki. Kalau sekalian perempuan berbuat demikian, apakah kelak akan pekerjaan laki-laki? Harus ke dapurkah mereka, mengurus rumah tangga dan menjaga anak? Berbalik hujan ke langit.

....

Pada sangkaku pikiran perempuan tadi salah. Apa gunanya perempuan menuntut kepandaian laki-laki dan memegang pekerjaan laki-laki? Bukankah sesuatu pekerjaan itu ada maksudnya?...Lebih dalam, lebih tinggi, dan lebih bannyak ilmu perempuan, lebih baik, asal jangan lupa ia akan kewaibannya yang asli.”

“Apakah kewajiban yang asli itu?” tanya Van Sta.

“Perkara anak, perkara rumah tangga dan perkara makanan.”

“Benar, tetapi perempuan, lain pula katanya. Untuk menjaga rumah tangga ada bujang, untuk memasak ada juru masak, untuk menjahit ada tukang jahit, untuk menjaga anak ada babu, untuk mencuci ada tukang cuci dan untuk menjaga kebun ada tukang kebun. Masakan sekalian itu ia sendiri yang harus mengerjakannya?”

“Tentu tidak. Akan tetapi meskipun ada bujang, juru masak, babu, dan lain-lain, perempuan harus juga faham



dalam segala hal itu, karena sekalian orang-orangnya tadi sekedar pekerja.... Dapatkah didikan anaknya, diserahkan kepada babunya yang bodoh itu?

....

Bila laki-laki itu kaya, seharusnya ia memenuhi segala keinginan istrinya dan haruslah ia menjadikan perempuan, putri dalam istana. Akan tetapi jika laki-laki itu sungguh tak cakap mengadakan sekalian permintaan istrinya, janganlah dipaksa. Keadaan suaminya harus ditimbang juga oleh perempuan, Jangan membuta tuli, mengingat yang senan untuk diri sendiri!"

"Ya, tetapi perempuan bersuami, karena hendak mendapat penghidupan dan kesenangan pula. Jika akan susah juga, apa gunanya bersuami? Lebih baik bekerja, mencari penghidupan sendiri," jawab Van Sta.

....

"Yaitu tentang pelajarang anak perempuan bangsaku. Oleh sebab itu kewajiba perempuan memang tiada sama dengan kewajiban laki-laki, pada pikiranku tak perlu segala ilmu laki-laki dipelajari oleh perempuan. Laki-laki pun tak perlu pula mempelajari kepandaian perempuan, yanb tak perlu baginya, misalnya ilmu menjahit atau memasak, kalau ia tiada harus menjado tukang jahit atau tukang masak. Apa

gunanya kepadaian insinyur dan hakim misalnya bagi perempuan? Bukankah lebih baik dipelajarinya kepandaian yang berguna baginya?

Aku katakan sekalian itu kepadamu, Yan, sebab sesungguhnya hatiku khawatir perempuan Indonesia ini dengan buta tuli meniru segala aturan dan pikiran perempuan Eropah, sengan tiada menimbang baik-baik....Pada pikiranku, tidak sekalian yang baik bagi perempuan Eropah, baik pula bagi perempuan Indonesia. Ada yang baik di sana, tak baik di sini dan kebalikannya ada yang berguna di sini tak berguna di sana. Yang sesungguhnya baik ambillah, toirulah dan pakailah!" (1992: 238).

7. The author language style in describing speech act situation towards the absence of a conformity understand between brothers about customs

" Bagaimana pikiranmu tentang kakakmu, Hamzah?" tanya putri Rubiah dengan tiada menoleh dari penjahitannya.

"Pada pikiran hamba, kelakuannya sangat berunag" jawab Sutan Hamzah sambil menoleh kepada saudaranya.

".... Coba kaupikir! Aku dan Rukiah saudaranya dan kemanakannya yang perempuan, jadi tanggungannya. Tetapi tiada dijaga, tiada dikunjung-kunjungi dan tiada dilihat-lihatnya, apalagi





dibelanjainya; pendeknya tiada diindahkannya. Hanya anak dan istrinya sahaja yang dijaga, dipelihara dan dihiraukannya....” kata putri Rubiah dengan sedih.

“ Anaknya itu kabarnya akan dikirimkan pula ke Jakarta, ke Sekolah Dokter Jawa, yang bukan tanggungannya, yang tanggungannya sendiri disiasikan....”

Dan apakah sebabnya ia tak mau menerima segala jempunan orang dan tak suka beristri banyak? Bukankah itu sekaliannya duit saja! (1992: 56-58).

### **C. What kind of character expressed in Siti Nurbaya Novel I towards the existence of women character ?**

Based on the research above, the women character in the period before independence in the context of Minang cultural background through the women characters in the *Sitti Nurbaya* novel are as follows.

1. Women who work as a servant must be polite, respect to the employer, have patience, and obey to the rules and orders.
2. The character of women and men employer are always checking, instructing, and guiding.
3. The position of "mother" in the family is always under "husband." Husband position is very dominant. For example: If a child asked for permission to travel, and "father" allowed him, he don't

need to ask permission to "mother."

4. The character of "mother" is always described as being patient, full of love, care, and if she talked is always full of advice.
5. Calls to parents is " father " and " mother. "
6. For peer communication between friends, they call each other with names, so it seemed familiar. This familiarity also appear in joking, thinking, discussing, and giving advice h each other. The communication between them is full of familiarity and kinship. This familiarity is characterized by feelings of mutual understanding between friends, and mutual taste if one of them is in trouble.
7. Among the aristocrat, an elder brother or sister have an influence on younger siblings. Their temperament is described as " arrogant ", always demand their rights. By their sibling, they are called " Kakanda", and they always receive the elder brother and sister behavior.
8. Calls for aristocrat women is "princess", while for an ordinary woman is " Sitti. " In the context of *Sitti Nurbaya* novel , women characters described by the author is a sholehah character who has courage to sacrifice for the sake of parents honor and dignity , and doesn't care for her life. . Sitti Nurbaya is the main character who



is always sacrifice her personal interests for the sake of the man she loved , and powerlessness in facing of the life's trials.

9. If a husband, especially aristocrat and very important, only has a wife, so he is considered to be deviated from the customs, or he is suspected to be having " witchcraft " by his wife.
10. Husband position is treated very honored and very special. The husband is always precedenced in all things, and served for every need. For example, in this story he is described in having meal phenomenon with his family. His wife and children are waiting faithfully and serve their husband/ father. If their father had finished eating, then his wife and children are allowed to have meal.
11. In expressing love, the youth in Siti Nurbaya era always use figurative words, indirect, explicit, sometimes punctuated with communication form like rhymes.
12. In the context of this story, there are two characters (Samsulbahri and Van Sta) towards women. Samsulbahri (the representation of eastern view) explains that women must satisfy with his nature, although she is intelligent. While the Western view put forward by Van Sta stated that woman life depend on her own. In this case, the Eastern view is more considered to be obtrude ,

authoritarian, and orthodox, while the Western view is more democracy.

13. Marriage for some people at the time of Sitti Nurbaya (representatives by Padang) is like commercial, without love. There is only pride if married some women but without responsibility, the most important thing is for reproducing.

#### **IV. Conclusions and Recommendations**

##### **A. Conclusions**

Based on the study result and above discussion, the writer convey a conclusion, that essentially the women character in the period before Independence in Sitti Nurbaya context (Kasih Tak Sampai) written by Marah Rusli is the same profile as modern women that is not only unique physical, but all what women do is unique that can not be done by men. The difference with the woman nowadays is in terms of opportunity and freedom to act, think, and behave.

At present, women have the same right and degree as men. Women get trust and recognition for holding important roles in state life, this is proved by the presence of the women president, ministers and ambassadors worldwide, and they are considered to have strong influence in the survival of the state.

Not only in thinking skills, physical strength of women can be





equated with men. Women also have been respected and appreciated in their right and aspiration.

The women character in this novel is a history that represents the presence of women in the colonization era with a limited motion, which is not experienced by present women, especially in Indonesia. The present women should be grateful, because they get equal rights and social level freely without going through a complicated and difficult process as it has been experienced by R.A Kartini and Rd. Dewi Sartika (Indonesian heroine) and other women characters who fiercely fight for their rights at the time.

### **B. Suggestions**

As the end of this article, the writer state the following suggestions.

1. Indonesian literary novel should be the main reference in fostering the literacy spirit, as it contains a socio-cultural representation in his time, so it can motivate learners to foster a life creativity which is more imaginative, innovative, critical, dynamic, and competitive.
2. Women anywhere in the world should be able to take advantage of equality as well as possible, so they can raise the dignity of women through positive and creative thinking to cooperate each other with men for the

realization of solutions for the development of the nation.

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# **SOFTSKILL PROFILE AND PROSPECTIVE STUDENTS HABITS OF MIND THROUGH STUDENT ACTIVITY UNIT (UKM) ON FKIP PASUNDAN UNIVERSITY**

Cartono<sup>1)</sup>, Ida Yuyu N. Hizqiyah<sup>2)</sup>, Fitri Aryanti<sup>3)</sup>

<sup>1,2,3</sup> *Pendidikan Biologi FKIP Unpas, Bandung, Indonesia*  
E-mail: fitriaryanti@unpas.ac.id

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**Abstract.** Soft skill and habits of mind is an ability to be possessed by student teachers of Biology, especially in problems solving. The research aimed to describe the profile of soft skills and habits of mind through student activity unit (UKM) on FKIP Pasundan University. UKM is a means of student activities that can develop interest, talent, expertise and soft skills of students. The research used survey method with qualitative descriptive technique. The results obtained information that there are 12 courses are not liked by the students, namely courses: Genetics, Physiology and Entomology, Botany Criptogamae, Phanerogamae, Statistics, Nutrition, Physiology, Sundanese culture, Chemistry, and physics to Biology. Ability thinking skills students of Biology Education in problems solving overall problem resolution has category no good. The existence of a relationship between subjects who do not like the student with soft skill students in general.

*Keywords : Profile, Softskill, Habits of Mind, UKM*

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## **I. INTRODUCTION**

The quality of education in fact equal to the quality of learning. The quality of the learning process is influenced by various factors, including the quality of students, teachers, teaching, curriculum, facilities, infrastructure, cost and so on. However, among the various components of the teacher plays a very important and strategic. Without a good quality teachers, all the components of the learning process becomes meaningless, the low quality

of the learning process that ultimately result in a lower quality of learning outcomes. Thus not surprising that the problem of low quality of education the teacher is the most rapidly hit oblique accusations as cause. Education grade is education that can perform quality learners maturation process developed by freeing learners dar ignorance, incompetence, powerlessness, untruth, dishonesty, and of bad character and quality of faith.

Along with the times, the essence of life is a problem-solving situation.



As'ari, in conference and Workshop (Shadiq 2007), cites the opinion of NCREL (2003) that basically the 21<sup>st</sup> century is characterized by the following characteristics: (1) a digital world, (2) requires inventive thinking, (3) require effective communication, and (4) require high productivity. So it is very important to introduce and familiarize students hone the problem-solving skills, good problem routine and problems. non-routine. Most of the problems in this world is problems non-routine that are structurally disorganized (ill-structured problem) and the solution allowed to use the algorithm. Unfamiliar examples of problems non-routine with settlement irregular (ill-structured problem) as quoted by Mullis (2012) of TIMMS 2011 is as follows. School math learning aims to make the students have the ability to solve problems that include the ability to understand the problem, devised a mathematical model, solve the model and interpret the obtained solution. However, it is still a contradiction with the facts shown by the TIMSS 2011 (Mullis, 2012) and PISA 2009 (Fleischmen, et al, 2010).

In general, the nature of real life when someone is no longer able to respond to issues related to life and no longer able to how to deal with the necessary intelligent attitude to oriented action on resolving the issue, in this case said Habits of Mind. Someone who has a habits of mind can be said to be reflected of soft skills. Relation to graduates who already

reflected habits of his mind, when faced with the problem of someone, he not only face it but also at once by action or thinking how to solve it. Krulik and Rudnick (Bismarbas, 2012) define the problem-solving as a way that a person using the knowledge, skills and understanding to meet the demands of the situation is not routine. Polya (Eden, 2009) also explains that solving the problem is an attempt to find a way out of a difficulty to achieve a goal that is not immediately achievable. According to Garofalo and Lester (Suryadi), problem-solving include high level thought processes such as process visualization, association, abstraction, manipulation, reasoning, analysis, synthesis, and generalization that each need to be managed in a coordinated manner. By Polya (1973 in Dhoruri, 2010), there are two kinds of problems: (1) find (number, painting, etc.) and (2) prove. According to Dhoruri (2010), problem-solving skills will be achieved by students if the teacher learning to condition students to construct knowledge and facilitate the student's learning activities that involve problem-solving. Problem-solving is one type of intellectual skills by Gagné et al (Eden, 2009) are higher in rank and more complex than other types of intellectual skills. The problems presented should ask a problem in a comprehensive, application, analysis and synthesis. Learners must choose the necessary knowledge, learn it, and connect it to a given problem (Widjajanti, 2011). Arends (2007)



states that the syntax of problem-based learning consists of five phases; directing students on the issue, organizing students to learn, help independent inquiry and groups, develop and present artifacts and exhibits and to analyze and evaluate the work.

Soft skills in each individual is different because soft skills are the result of interaction and communication in the life of society. Soft skills are not obtained in special courses but can be trained intensively in every lesson. The role of soft skills itself can shape a person's skills in managing oneself and others so that relationships are very well established, as revealed by researchers at Harvard University in Rismansyah (2015) who stated that success is only about 20% determined by hard skills and the remaining 80% with soft skills, so hard skills and soft skills must be integrated well where hard skills can be obtained in the world of formal education while soft skills obtained through formal education and outside formal education.

The purpose of research is to determine the profile of education in general in Biology Education Studies Program FKIP Unpas, student response to the lectures resolve the problem, Softs kill (thinking habits: habits of mind) students in solving problems and profile of UKM. Observations in this case study are intended to determine the learning process that lasts for student teachers of Biology in Biology Study Program, FKIP Unpas. The

results of observations expected to be useful to be used as a basis in determining the development strategy of learning programs for the sake of the implementation process of quality learning that ensures the success of student teachers in achieving their academic achievement, become teachers of biology that has the ability through experience, that are expected to produce graduates who have competitiveness one of them power that is capable of learning practice problem solving and more away again have the experience or ability to practice solving the problems in his life.

## **II. METHOD**

The method used survey research to profile the learning process, skills resolve problems and soft skills/habits of mind students at the Faculty of Biology Education courses Teacher Training and Education (Guidance and Counseling) Pasundan University (Unpas) Bandung. Reviewers do not provide treatment or treatment of research subjects, but only trying to uncover the data is. From these data are then compared or linked using the assessment results with the questionnaire perception results about student and faculty interviews. The study was conducted at the Department of Biology, Faculty of Education Teacher Training and Education. As described in Chapter I, the study is restricted to students of the seventh semester (odd), assuming that the student has signed almost all of the



subjects in the S-1 in Biology Education courses FKIP Unpas Bandung. Study done for 1 month which begins in early May to early June 2017. The main activities include the assessment of the preparation phase (pre survey), execution and reporting of the study results. Event execution and reporting results of the study which includes the development of research instruments, instrument validation test, surveys and field observations, data analysis, report writing. Participants engage students 7<sup>th</sup> semester (odd) as many as three classes. (class A = 40, B = 43, B = 41). More specifically, the study used a sample of students from class C is numbered as many as 41 the number of students consists of men and women. Subsequently the samples obtained minimal 10% of the population, as much as 12.4 or rounded to 14 students. In this study used all students from class C totaling 41 students. Data necessary in this field of study, have been obtained by means of; Direct field observation, the acquisition of formal data, the use of questionnaires, interviews and document research. The data analysis technique used is planned to be used qualitative descriptive analysis. The results of the analysis in the form of

presentation of data in tables and graphs.

### III. RESULT

#### 1. Profile of Learning, Problem Solving Skills Ability Students Biology Education Studies Program of FKIP Unpas.

Based on the calculation of the percentage, tests the ability of problem-solving skills of students in solving problems of the settlement of the problem as a whole has a category is not good, this is indicated by the percentage points below the minimum that is in order : (1) the ability to clarify the term concept is not yet clear to the percentage 11,9%; (2) the ability to formulate and analyze problems percentage of 13,7%; (3) the ability to seek additional information and other resources with the percentage of 16%; This means that the ability to solve problems in formulating the problem and analyze the smallest problem is the skills possessed by students in solving the problems associated with everyday life, especially the included studies Ecology, Environment and Entomology. The following chart is presented Table 1 and Figure 1 as supporting data.

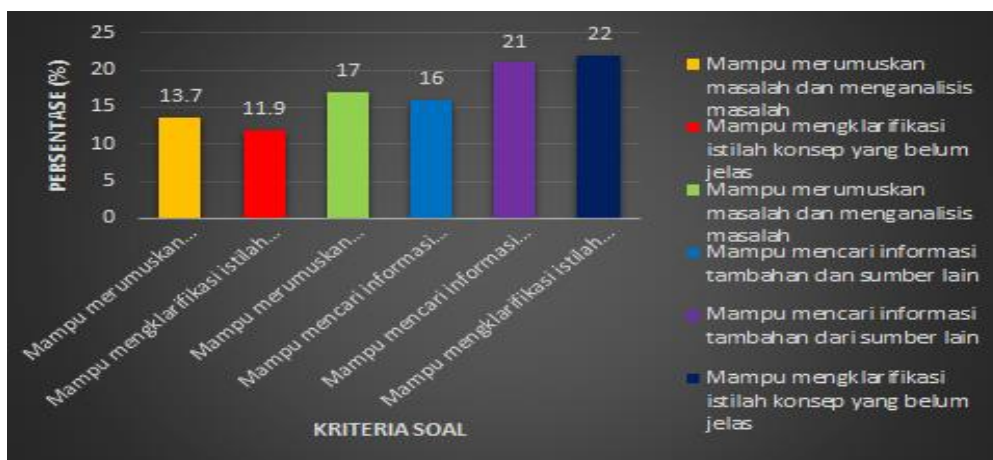
**Table 1. Assessment Tests Students for Solving Skills Measure**

No.	Criteria Problem	Average	Percentage (%)	Criterion
1	Ability to define problems and analyze problems	1.37	13.7	Not Good
2	Able to clarify the term concept is unclear	1.19	11.9	Not Good





No.	Criteria Problem	Average	Percentage (%)	Criterion
3	Ability to define problems and analyze issues	1.7	17	Neither
4	Able to seek additional information and another source	1.6	16	Good
5	Being able to seek additional information from other sources	2.12	21	Good
6	Capable of clarifying the term concept unclear	2.2	22	Good
<b>Total</b>		<b>20.8</b>	<b>100</b>	
		<b>7</b>		



**Figure 1. Assessment Tests Students for Measuring Skills Troubleshooting**

**2. Soft Skill/Habits of Mind Student Biology Education Studies Program of FKIP Unpas**

Based on the recap observation of the student, in addition to the ability hardskill students targeted lecturers

each end of the lesson is also professor of applying soft skill contained in the Student Education courses Biology FKIP Unpas, among which is responsible, working together, to respect others, to work optimally, think

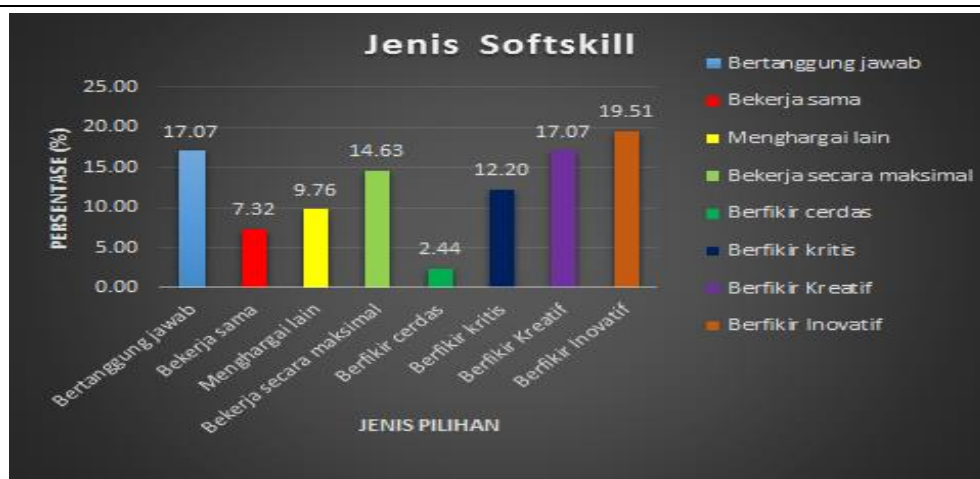


smart (habits of mind), critical thinking, creative thinking, and thinking of innovative (as presented in Table 2 and Figure 2 below). The soft skill minimum value is think smart with the percentage of 2, 44% compared to the others. While the highest value of soft skill is innovative

thinking with a percentage of 19.51%. Sequentially from high to low are : (1) critical thinking; (2) to think creatively and responsibly; (3) work optimally; (4) critical thinking; (5) respect for others; (6) work together; (7) think smart.

**Table 2. Attitude Soft skill the Awakened in Student Learning Process**

Aspect	No. Aspects	Type Category	Number of	Average	Percentage (%)
Type Softskill	35	Responsible	7	0.17	17.07
		Working	3	0.07	7.32
		Respect for another	4	0.10	9.76
		Working in a maximum of	6	0.15	14.63
		Thinking smart	1	0.02	2.44
		Think critically	5	0.12	12.20
		Thinking Creative	7	0.17	17.07
		thinking Innovative	8	0.20	19.51
<b>Total</b>			<b>41</b>	<b>1.00</b>	<b>100.00</b>



**Figure 2. Attitudes *Soft skill* the Awakened in Student Learning Process**





**3. Relations Soft skill Students Study Program Biology Education FKIP Unpas ability Skills problem Solving (*Habits of Mind*)**

Based on the observation of ratings soft skills/habits of mind (have not been observed) in the lecture by 3 observers on the target subject to a number of students, obtained information that highest value of soft skills obtained on the courses Sundanese Culture and Religious Education. Achievement smallest value of Student soft skill in the subject of the target was observed that subjects Entomology and Animal Physiology and Zoology Invertebrates. This may imply the relationship between subjects unpopular with the student's soft skill in general. And if it is associated with problem-solving skills of students at one of the subjects, it can be that when students do not like the course this is possible because the faculty in implementing the learning using a method that does not require students to work in groups to provide opportunities for the emergence soft skills of students through the learning process.

**4. Identification of UKM Work Program**

Based on the survey results of UKM, there are several prospective teachers who are active in UKM such as in KSR. The researcher identifies the work program of KSR related to the development of student soft skills. Soft

skills aspects will encounter the ability problem-solving skills.

**IV. DISCUSSION**

Over time last four years the sheer number of new students of Biology Education Studies Program, FKIP UNPAS, shows a rapid increase over the previous year as described. Various reasons for prospective students settled on Biology Education Studies Program FKIP UNPAS, collected through a questionnaire that was distributed to a number of student representatives semesters 5 and 7. As many as 60% of them expressed reasons for wanting to become a teacher of Biology, which consists of 44.29% wanted to become a biology teacher without the so-called college and 15.71% wanted to be a teacher of Biology educational outcomes Biology Education Studies Program FKIP UNPAS. In addition, 37.14% of students chose Biology Education Studies Program FKIP UNPAS, because it did not pass the entrance examination at other universities and 2,85% want higher education regardless of their field of study. Although the new students of Biology Education Studies Program have increased from year to year the level is still low selectivity. Comparison between the number of students who enroll for the amount received is not tight. Percentage of stringency screening prospective students ranged from 5.72% to 11.26%.

This time faculty Study Program Biology numbered 31 people, made up of 21 permanent academic staff



originating from the Department of Biology Education and other study programs in environmental FKIP Unpas and 3 orang faculty are not fixed/extraordinary coming from other universities in Bandung. Viewed from the side of educational qualifications, lecturer in Biology Education Studies Program, FKIP UNPAS sufficient. Some 10 people educated teaching staff last S3 (33.33%), 15 people educated S2 (50%) and 5 educated S1 (16.66%). The entire staff was educated S1 is currently studying S2. In addition, four people remain educated staff S2 is continuing his studies at levels of S3. The table in the appendix also shows most of the faculty have academic position Associate Professor, that is 15 people (50%). Position Associate Professor is owned by six lecturers (20%) and Playground Young 6 lecturers (20%). But there are still two lecturers who had the post of assistant expert (6.66%), while the post of Professor of solely owned by one lecturer only (3,33%).

Data on the number of students who are studying in Biology Education Studies Program, FKIP Unpas 2016 was 776 people. Overall comparison of the number of lecturers with the number of students is 1: 26, but if it was calculated the ratio between the total lecturer in the field of Biology with students is 1: 37. While the comparison of permanent lecturers who have expertise relevant to the number of students of Biology Education Studies Program is 1:52. Most professors who were interviewed had

experienced more than 5 years of teaching in Biology Education Studies Program, FKIP Unpas. Some of the lecturers have supported the same course for more than 5 years, but most are still alternated courses tailored to the needs and conditions at the time the semester progresses. Almost all tenured faculty support more than one subject, at least one course in each semester. However, most faculties support allied subjects, such as clumps of plant science, animal science or science education. Most tenured faculty Biology Education Studies Program that administers subjects in the group courses Science and Skills and Work Skills Course is not taught in courses, faculty or other universities. While the lecturer of the course in groups of Personality Development Course and Course Work Behavior mostly teaching also in courses or other faculties UNPAS environment.

Profile Biology Education Studies Program students are very diverse. This diversity includes socioeconomic background and region of origin student families. Biology Education Studies Program in demand by prospective students, especially those from West Java and Banten as well as enthusiasts of Central Java and some areas outside of Java such as South Sumatra, Bangka, and Belitung although the amount is not so much. Most students of Biology Education from environment capable middle-class. Therefore any scholarship offers are always used in the best possible. Scholarships are prioritized in addition



to the students who have high academic skills, as well as to students who are economically disadvantaged. The appeal of courses for new students generally caused tuition/fees are not too expensive, employable graduates, the campus is located in a strategic location and a graduate of Biology Education Study Program Guidance and Counseling Unpas considered to have a good image in the community.

A questionnaire regarding students' perceptions of learning, in general, showed 81.43% of the students found the lecturers generally mastered the course material subject well, but the way of delivery is not good so elusive material. A total of 15.71% of the students found the material master lecturers and teaching a good way so that the material is more easily understood. Only 1.42% of students rate the teachers do not master the material well. Contrary to the assertions, 35.71% of the students found learning methods are presented lecturers are very helpful understanding of the subject matter 21.43% whereas in general, the students found learning methods are presented lecturer does not help understanding of the subject matter 31.43% more students argue that most professors give lectures with a lecture and do not provide the opportunity to discuss. There is also (8.57%) of students showed that most professors give independent learning tasks without starting debriefing.

Criticism and suggestions for improvement of the learning process

derived from the 90.90% of the students. Some of the students criticized the lecturer exemplary problem in terms of discipline. Students found there are still some lecturers who are often not even present late according to the schedule set. While in terms of learning, most students want a more varied learning methods and not only lectures, better teaching materials, as well as the media that further facilitate the understanding of students to the concepts that are abstract. According to interviews with professors argued that the support duties that often changed the course lecturers focus resulted in the deep subject matter. However, lecturers maximum effort to master the material. Various strategies pursued to help students understand the subject of lecture material. To obtain a more detailed picture of the learning process is carried out observations focused on the subject Physiology as one of the subjects is accompanied practicum with sustainable management, the courses Genetics accompanied lab but is managed separately and Embryology as a lab course that is not accompanied practicum.

Department of Biology graduate quality according to the user's perception of graduates is good. Some indications that support this perception is: Average GPA Biology Education Studies Program graduates in the past three years is 3.15 (table attached). Most of the students master the learning material and is able to perform the learning process well. This is



evident from the average value of the course Practice and Introduction (PPL). After PPL, many students asked to teach at the school where they carry out tasks PPL. Although not many, the ability of graduates to the job market independently is quite good. There are graduates who make a tutoring center, giving private lessons to students from elementary, junior high or high school; open data processing services for computer and statistical capabilities; opened the food industry because of its ability to develop the concept of fermentation technologies, in particular biotechnology and open stalls of ornamental plants and agricultural crops because of its ability to develop the science of horticulture and ornamental plants.

Biology Education Studies Program FKIP Unpas already have a tracking system graduates. To accommodate the activities it has had FKIP UNPAS Alumni Association. At the time of the graduation ceremony shared forms available at any time to be returned to the institution of the waiting period of graduates in obtaining employment. A number of alumni pretty much scattered across West Java and Banten.

Graduates Biology Educational Studies Program, Guidance and Counseling, Unpas projected to be a scholar ready to plunge into the world to work with a quick adjustment to the dynamic needs of the workplace. In each year, an average yield of 100-120 students, this means there is a balance between revenue and graduates each

year, with the average graduate GPA of 3.15. Graduates of the course are mostly working in accordance with the disciplines that as teachers in educational institutions or courses (teacher) public and private, tutoring, private lessons. Biology Education Program graduates are already working as a civil servant in Bandung Regency presented in an appendix. The others work outside of education, however, still has relevance with its discipline, such as in healthcare institutions, fishery, agriculture, plantation, laboratories and other institutions both public and private. In addition a small portion of graduates develops her potential by developing entrepreneurial ornamental plants. The ability of graduates to compete with the same field of science graduates coming from other institutions rated likely better because based on user opinion graduates, graduates FKIP Unpas have good skills. However, the percentage of graduates who successfully passed the selection employees and work in leading educational institutions still remains small. Teachers who teach in schools still a fraction glimpsed by private schools that have good quality, largely absorbed by educational institutions is a favorite. This is made possible by the competitiveness of graduates is still low and may also be caused by the lack of good imaging Biology Education Studies Program in the eyes of leading educational institutions, especially in Bandung.

The existence of UKM needs to be supported and facilitated by the campus



because the potential of soft skills development can be explored so as to channel interest and talent. According to Herizon and Wirda (2012) soft skills is an ability that is intangible / cannot be seen but is needed for someone's success in the world of work. Participation in SMEs can hone the combination of soft skills and social skills that are the ability to interact with others in a social context. According to Rao (2015) revealed that by conducting soft skills training to improve job skills on students and the results of his research show that soft skills will enable students to grow as individuals who are ready to compete in the world of work and also able to open their own employment.

## **V. CONCLUSIONS**

Based on the analysis and findings of the research shows that there are 12 courses that are not liked by the students of Biology Education FKIP Unpas, namely courses: Genetics, Physiology and Entomology, Botany Criptogamae, Phanerogamae, Statistics, Nutrition, Physiology animals, Culture Sunda, Chemistry, and Physics to Biology. Ability thinking skills of students of Biology Education FKIP Unpas in problem-solving overall has category no good. And if it is associated with problem-solving skills of students at one of the subjects, it can be that when students do not like the course this is possible because the faculty in implementing the learning using a method that does not require students to work in groups to provide

opportunities for the emergence soft skills of students through the learning process. Student activity in learning and participation in Student Activity Unit (UKM) is very important because it can improve hard skills, soft skills and habits of mind of a student. Soft skills can maximize the performance during the learning and also help in achieving career paths because they have special expertise so that college graduates have competence in the mastery and use of science and technology and ability to think analytically in problems solving.

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# INTEGRATION OF ETHNO-PEDAGOGY TO DEVELOP BIOLOGY LEARNING MODELS

Iwan Setia Kurniawan<sup>1</sup>, Rifki Survani<sup>2</sup>

<sup>1&2</sup> Program Studi Pendidikan Biologi FKIP Pasundan University, Bandung, Indonesia

<sup>1</sup> iwansetiakurniawan@unpas.ac.id

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**Abstract.** Model of learning is a syntax or learning steps depicted from the beginning to the end presented in full or typical in the learning process. This study aims to determine the ability of biology pre-service teacher in developing an ethno-pedagogical oriented learning model. This research is a quantitative descriptive research, data obtained based on the results of data analysis is described to obtain information or description of the results of this study. Population in this study as many as 164 students are divided into 38 groups. Technique of data collecting with non-test, data obtained from document of assignment of student report given score based on its indicator which divided into some aspect of assessment and student response questionnaire. The results showed that the ability of biology pre-service teacher in developing the learning model oriented ethno-pedagogy including sufficient category with an average score of 75. Students' response to development of learning model oriented ethno-pedagogy is good, 70.04% of students expected. Thus it can be concluded that the ability of students in developing biology learning model integrated ethno-pedagogy still needs to be developed especially for several aspects. The results of this study can be used as a reference for the lecture program in the future.

**Keywords:** ethno-pedagogy, learning model, development of learning model, biology learning

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## I. INTRODUCTION

Learning model is a syntax or learning steps depicted from the beginning to the end presented in full or typical in the learning process. In other words, the learning model is a whole set of unity between approach, strategy, method, and technique. Learning model is like a framework that describes a systematic procedure in organizing learners' learning

experiences to achieve specific learning goals, and serves as a guide for learning designers and teachers in planning and implementing teaching and learning activities. The learning model is a description of the learning environment that describes the planning and framework for designing learning to overcome teacher difficulties (Joyce and Weil, 2000; Rustaman, 2005; Arikunto,



2003; Dahar, 1989). This is the heavy duty of a teacher where the teacher in addition must have a reliable competence, should also form a competitive student individual, creative, and character in this sophisticated era. It is certain that only competing individuals will speak in an era of globalization, for which each individual must have reliable competence in various fields according to his / her interests, talents and real abilities along with the advancement of science and technology (Sanjaya, 2005; Sa'ud , 2008). Classroom learning activities can not be separated from the learning model. the accuracy of choosing a chase model for a particular subject will have a good impact on the student. The use of learning models should be a key aspect of learning activities and their implications in education, especially by prospective teachers (Krell, et al., 2015; Cil, et al., 2016). The advancement of science and technology, particularly in relation to learning theory has inspired and inspired many innovations in the field of learning models using technology (Saud, 2008; Zaltman, 1973) technology can support more motivation and encourage educational programs and improve teaching methods if designed in such a way as to achieve the learning objectives (Costa, et al; Marsh, 1996; Eggen and Kauchak (2012).

Biology is a branch of natural science that studies about living things, especially humans, animals and plants and its interaction with the environment built on concepts based on facts that can be sensed through the process of scientific methods (Rustaman, 2005, Prawoto, 1992). Biology studies many things about living things and their interactions with the environment. The complexity of biological science becomes an obstacle in studying biology especially abstract concept. Biology is concerned with a systematic way of finding out about nature, so that biological learning is not only the mastery of collections of knowledge in the form of facts, concepts or principles but also a process of discovery. In this regard, biology learning emphasizes the provision of direct experience to develop competencies so that learners explore and understand the natural surroundings scientifically. In modern theory, the learning process does not depend on the existence of the teacher (educator) as the manager of the learning process. It is based that the learning process is essentially an interaction between students with the object being studied (Mudjiman, 2009).

The current teacher's demands must have the responsibility of building the character of the nation and culture. In this case ethno-pedagogy has an important role.





Ethno-pedagogy views local knowledge or local wisdom as a source of innovation and skills that can be empowered for the welfare of society. Ethno-pedagogy is a practice of local wisdom-based education in various domains such as medicine, martial arts, environment, agriculture, economics, government, dating system etc. The local wisdom deserves to be the basis of education and culture. Introduction to local culture, especially in the Answer to the students is very necessary so that students can live, preserve the culture and himself. The development of ethno-pedagogy oriented biology learning model is expected to provide meaningful enrichment in supporting the national educational goals that will shape the nation's character. Therefore, ethno-pedagogy becomes the foundation in the development of biology-based learning model of local wisdom, because the learning can bring closer the teachers and students with the concrete situation they face to be able to better understand its own culture, so grow and pay attention to the maintenance and utilization of natural environment around (Suratno, 2010). Culture is directly or indirectly, able to provide a certain identity for the individual and the support community (Kosasih, t.t). According to Alwasilah et al. (Suratno, 2010) views ethno-pedagogy as a practice of local wisdom-based education in various

domains and emphasizes local knowledge or wisdom as a source of innovation and skills that can be empowered for the welfare of communities where local wisdom is linked to how knowledge is generated, stored, applied, administered and inherited . In this case, local wisdom has characteristics: 1) based on experience; 2) tested after centuries of use; 3) can be adapted with current culture; 4) coherent with the daily practice of society and institutions; 5) commonly done by individuals and communities; 6) is dynamic; and 7) are closely related to the belief system.

## II. METHOD

This research uses quantitative method with descriptive research type. The population in this study were 164 students divided into 38 groups. Random sampling technique (random sampling) based on the formula developed by Isaac and Michael (Sugiyono, 2011) as follows:

$$\text{Sample} = \frac{\lambda^2 \cdot N \cdot P \cdot Q}{d^2 (N-1) + \lambda^2 \cdot P \cdot Q} \dots\dots\dots(1)$$

$\lambda^2$  = with  $df=1$ .  $P=Q= 0,5$ .  $d= 0,005$ .  $N=$  Population

This research was conducted in March 2017. Data collection was



done by non test technique. Non-test techniques for collecting data are conducted by questionnaire, document review (document analysis) and teacher assessment results on the developed biology learning model. Questionnaire contains instrument of student attitude toward development of biology learning model with ethno-pedagogy qualitatively. Then the qualitative data is converted to quantitative data. Questionnaire is a statement of 20 items of statement, 10 items of positive statement and 10 items of negative statement. The questionnaires used in this study use Likert scale, with four categories that

strongly agree (SS), agree (S), disagree (TS), and strongly disagree (STS). For positive statements the categories strongly agree (SS) given a score of 4, agree (S) given a score of 3, disagree (TS) given a score of 2, and strongly disagree (STS) given score 1. While negative statements, strongly agree (SS) was scored 1, agree (S) given a score of 2, disagree (TS) was given a score of 3, and strongly disagree (STS) was scored 4. The score will be converted and described based on the results of the analysis in this study.

Table 1. Aspects Assessment Report

Numb.	Assessment Aspects	Score
1	Originality	20
2	Accuracy	20
3	Systematics Syntax	20
4	Etno-pedagogical Integration	20
5	Creativity	20
Total		100

The data analysis technique used is descriptive quantitative analysis. Quantitative data analysis is done by descriptive technique that is statistical data analysis used to describe collected data as it is. The results of analysis in the form of presentation of data in the form of tables and graphs. From the data collected in subsequent research was analyzed by quantitative descriptive analysis analysis technique that is

describing and interpreting each component compared with reference criterion based on ideal ideal score (Mi) and ideal standard deviation score (S<sub>Bi</sub>) reached by instrument sheet. This study used a five-scale questionnaire with value and score conversion, determining (Mi) and (S<sub>Bi</sub>) in this study using the formula developed by Jumadi (2012). Determination (Mi) and (S<sub>Bi</sub>) are presented in Table 2.



Table 2. Conversion of scores on 5 scale

Score	Criteria
$x > (Mi + 1,8 SBi)$	Excellent
$(Mi + 0,6 SBi) < x < (Mi + 1,8 SBi)$	Good
$(Mi - 0,6 SBi) < x \leq (Mi + 0,6 SBi)$	Sufficient
$(Mi - 1,8 SBi) < x \leq (Mi - 0,6 SBi)$	Low
$x \leq (Mi - 1,8 SBi)$	Lowest

### III. RESULT

The research data was obtained from each group of students of 38 groups who were given the task to develop biology learning model that integrates local wisdom values especially in Tatar Pasundan (Sunda). The result data of the analysis is from the assignment document to the student group which analyzed the data based on several aspects. The result of data analysis is converted into percent (%). For more details are presented in Figure 1.

Based on Figure 1. The highest aspect of assessment is on the integration of ethno-pedagogy used in developing learning model of 84.87% and the lowest assessment aspect in systematic syntax of learning model development is 64.21%. Based on these aspects can be seen ability of student group in developing model of learning oriented ethno-pedagogy as a whole.

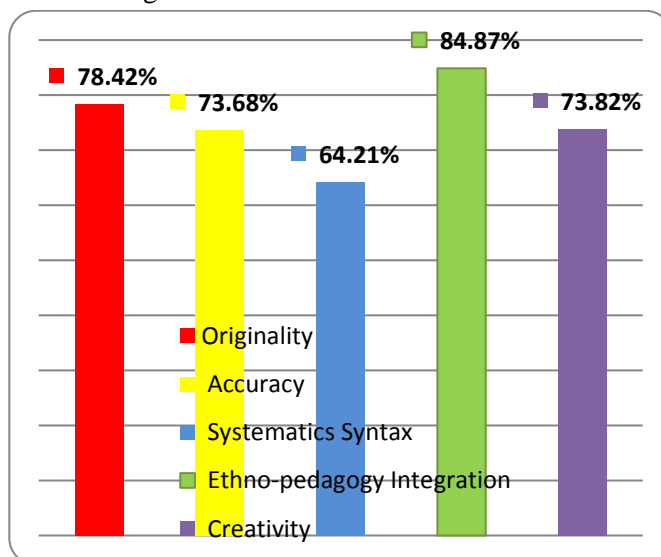


Figure 1. Percentage of Student Ability in Developing Learning Model Oriented Ethno-pedagogy



### A. Student Skills Criteria

The average score of the students' group ability is taken from the data of the analysis of the task assessment report of the development of ethno-pedagogy oriented biology learning model. Referring to the formula developed by Jumadi (2012) the average value of students can be classified by category. Each component is compared with category references based on ideal ideal score (Mi) and ideal ideal deviation score (S<sub>Bi</sub>) achieved by the instrument sheet. This study used a 5 (five) scale questionnaire with value and score conversion. For more details are presented in Table 3.

Table 3. Conversion of scores on 5 scale

Score	Criteria
$x > 78,8$	Excellent
$75,6 < x < 78,8$	Good
$72,4 < x \leq 75,6$	Sufficient
$69,2 < x \leq 72,4$	Low
$x \leq 69,2$	Lowest

Based on Table 3. the average score of the students' group ability in developing ethno-pedagogy I oriented learning model 75 is in the range of 72,4-75,6 with the ability of student in developing odel of ethno-pedagogy oriented biology learning included into enough category.

### B. Student Response Questionnaire

Questionnaire of student responses in this study was analyzed with the aim to obtain information on

how the attitude or response of students to the development of learning model oriented ethno-pedagogy. Data collection was done on the students as many as 30 people. Using the Likert scale the qualitative data is converted to quantitative data. Quantitative data scores are converted to percent (%), then described by data analysis. Description of data recapitulation is presented in Table 4. Table 4. Description of Student Response to Development Oriented Learning Model Ethno-pedagogy

Statement Numb	Percentage (%)
1	86.67
2	80
3	75
4	75.83
5	78.33
6	77.5
7	72.5
8	73.33
9	65.83
10	66.67
11	63.33
12	61.67
13	57.5
14	62.5
15	60.83
16	65.83
17	64.17
18	70.83
19	68.33
20	74.17
<b>Average</b>	<b>70,04</b>



Based on Table 4., it is found that the average percentage of student attitudes is 70.04%. This shows that as many as 70.04% of students responded well to the development of ethnopedagogical-oriented biology learning model from the expected.

#### **IV. DISCUSSION**

The model developed is a model of biology-oriented learning ethno-pedagogy especially Sundanese culture that became identity in the environment Pasundan University. This research was conducted on seven semester students (fourth graders) Biology Education, Faculty of Teacher Training and Education. The development of this model encourages one of the postponed university mission "Jembar Budayana" so that its development is thick with elements of Sundanese culture. The ability of students groups in developing biology learning model based on its aspects is quite good with an average above 60%. The originality of the model developed by the student group is 78.42%, this explains that the developed model has good overall authenticity because most of the models developed by the student groups of their thinking based on ethno-pedagogy (Sundanese culture) are not from adoption or modification of other learning models, only a small group of students adopted and modified from other learning models. This is in line with the opinion expressed by

Zaltman (1973) an innovation can be a combination of many attributes, even innovation can be born out of pure thought as a result of urgent interests.

The implementation of the learning model is the extent to which the model developed by students can be applied (implemented) in the classroom this is seen from the results of the overall model analysis including indicators, objectives and syntax developed in the learning. The application of the developed model is good category that is equal to 73,68%. Thus some of the models developed by student groups can be implemented in the classroom in the learning process. This is understandable because students already have prior knowledge of the learning model in other courses. As a result, the students are able to design a good learning model and clear direction so that it does not close the possibility that the model can be applied in classroom learning. This is supported by the opinion expressed by Rustaman (2000) model of learning is a frame of mind that directs a designing and implementing learning in the classroom and guide students learn so that the learning and teaching interaction becomes more focused.

The syntax system studied in this study is related to the syntax / systematic syntax created by the student group. The syntax designed



by the student group should be clear and sequential (systematic), it will make it easier to understand the steps in overall learning. The ability of students in preparing the syntax systematically can be categorized either that is equal to 64.21%. This systematic aspect of syntax is the lowest aspect Thus the learning syntax developed by the student group is not well structured and systematic, this should be the focus in the course program. This is in line with the opinion of Rustaman (2000) if in the learning of a teacher using the stages of learning, the stages must be certain and clear. The social system and its support system must be well designed, because the class within the school is part of the social system.

The integration of ethno-pedagogy in the development of the intended learning model is how big the cultural elements contained in the developed learning model. Ethno-pedagogy integration of 84.87%, explains that the learning model developed that is oriented ethno-pedagogy by students is good and most there are elements of ethno-pedagogy in its syntax. This can be understood because most students come from tatar sunda, so the values of Sundanese culture attached to the student self. This of course gives effect to the model of learning that is made because according to what they experience and earn in everyday life

especially related with tradition, customs and life pattern of Sundanese society. This is supported by the opinion expressed by Kosasih (t.t: 6) through culture, man fostering interaction with others, with nature, and passing on values that are considered beneficial for their survival from generation to generation. It means that culture is directly or indirectly, able to provide a certain identity for the individual and the support community.

Creativity of model development in this research is intended to the extent to which students can be creative by collaborating learning models that they develop with elements of ethno-pedagogy. Student creativity is good enough that is equal to 73,82%. Although the creativity of students is quite good in developing the model of learning, but the creativity aspects of students are considered the lowest compared with other aspects. This is understandable because a creativity will not come easily, just maybe certain people who have high creativity. This is supported by the opinion put forward by Sanjaya (2005) to ensure that only competing individuals speak in an age of globalization, for which each individual must possess competent competencies in various fields according to his interests, talents and real abilities. In addition, the students involved in this research may have





adapted to the environment with advanced technology, living in the midst of cultural acculturation, so they are less understanding of how regional cultural values they should pour in the learning model. in the end this resulted in limited student creativity. The same thing put forward by Kosasih (t.t.) Children past time very challenged by nature and the environment is located. They are able to take advantage of what is in the environment. As a result, they must be creative, always ready for the challenges and obstacles that arise at any time.

The ability of groups of prospective teachers in developing a model of ethno-pedagogy biology-based learning included in the category is sufficient. Thus the ability of the development of biology learning model in prospective teachers should be developed. This is quite understandable because the learning model developed is quite difficult because in it must be related to the model of learning, biology and ethno-pedagogy learning. The same point expressed by Dahar (1989) model is a conceptual analogue used to suggest how to continue empirical research should be about a problem. It is intended that the development of learning model should be continuous especially through various research, so that later will emerge a model that can be applied and can be applied in learning and can be used as solution

in education problem especially in Indonesia. In line with the opinion expressed by Arikunto (2003) in conducting teaching and learning activities, teachers may find difficulties in relation to students' circumstances, so teachers should choose the most appropriate. Developing a learning model is not easy because of the many criteria or aspects that students must understand. Innovative learning model that is created must show effectiveness in learning and pay attention to some key aspects and goals to be achieved. In line with this, Krell, et al. (2015), Cil, et al. (2016) and Costa, et al. (2016) suggests that the use of learning models should be a key aspect of learning activities and their implications in education, especially by prospective teachers, to find new ways of teaching. In this case the student must understand the key aspects in developing a learning model, the key aspects must of course be relevant to the learning objectives, the students' needs in learning and assessment. In addition Marsh (1996), Dahar (1989), Sa'ud (2008) and Sanjaya (2005) stated that teachers should have teaching competence, motivate learners, create instructional models, manage classes, communicate, plan lessons, and evaluate leads to research as the forerunner of innovation so that can compete in the era of globalization. This explains that in developing a





model of learning a prospective teacher must have competence in all matters concerning learning. The difficulty in developing the learning model proposed by Eggen and Kauchak (2012) argues that the learning model should be supported by theories and research on learning and motivation. Thus developing a learning model should have a clear theoretical basis and how much better the learning model developed based on some research results. Many aspects or specific criteria must be met in developing a model of learning, for which Joyce and Weil (2000) argue that the learning model should include several aspects such as clear syntax, should describe the social system as a form of interaction, support systems that have always been an important part in the implementation of learning models and impacts on learning in particular positive impacts for students.

Based on the results of questionnaire analysis of the highest percentage of student responses in the statement number 1 of 86.67%. The statement explains that the biology learning model needs to be developed in line with the development of the era. This shows that 86.67% of students assume that existing models especially for biology learning should be developed in this case new innovations are needed more current along with the development of the era. The percentage of the lowest

statement is on statement number 13 of 57.75%. The statement explains that students find it difficult to develop ethno-pedagogy biology-based learning. This shows that as many as 57.75% of students find difficulties in developing an ethno-pedagogy-based learning model, this can be understood because the development of ethno-pedagogy-based model is new for them and the scope is limited, so that students are not free to develop the learning model in accordance with what they will. But if we examine the numbers are quite balanced, it means as much as 42.25% of students can develop a model of learning-based ethno-pedagogy easily without difficulty.

## **V. CONCLUSION**

The prospective teacher must have the ability to develop a learning model which will be useful in becoming a person. Learning model can be a guideline in the learning process, can also determine success. The results of this study showed that the ability of biology teacher candidates to develop an ethno-pedagogy oriented learning model included in the category enough. Most students support the development of learning models by integrating ethno-pedagogy elements in it. However, students find it difficult to integrate them into the syntax system they design. Of course



this should receive special attention in the development of lecture program that will come.

### **A. Acknowledgement**

DRPM Directorate General of Strengthening Risbang who has funded this research, LPM Univeristas Pasundan and the parties involved in this research.

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# EDUCATION AS THE FORM OF NATIONAL CHARACTER

Toto Sutarto Gani Utari

Program Studi Pendidikan Biologi FKIP Pasundan University, Bandung, Indonesia

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**Abstract.** Character is a permanent behavior that appears to a person. When some people exhibit the same permanent behavior it is called the character of the community, and if the permanent character appears in most of a nation then it is called the character of the nation. Characters are formed through a long process, ranging from memory formation which will then control the behavior of each individual. Therefore the characters will not be handled instantly. Behavior is an educational goal, so character can be built through education. Behavior is controlled by memory, so that education can achieve its goal when its educators understand how memory is formed. The purpose of education is formulated based on the development of the level of competence (level of competence) that has been formulated in the theory of Kognitive Benyamin S. Bloom. So that the characters can be built properly and correctly every educator must master the theory of cognitive

**Keywords:** Character, Permanent Behavior, Memory Formation, cognitive theory

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## I. INTRODUCTION

The characters become the main current spotlight in Indonesia, almost in all components of the system characterized by concern. Against this reality the most blamed is the educational world, because education is what should control the character of the nation everywhere. So obviously character improvements must be made through the education sector.

Prior to the step of character improvement through education, it is submitted first the meaning of character according to this script. Character is a permanent behavior that appears to a person. When some people exhibit the same permanent behavior it is called the character of

the community, and if the permanent character appears in most of a nation then it is called the character of the nation. Characters are formed through a long process, ranging from memory formation which will then control the behavior of each individual. Therefore the characters will not be handled instantly.

Actually, the effort to improve the character continues to be done by the Ministry of Education and Culture of Indonesia through improving the quality of educators. Since 1977 there has been upgrading, workshops, provision of essential facilities, the construction of learning resource centers and their contents, the development of teacher education



curricula and the modernization of learning at all levels of the educational unit.

However, something is forgotten so that the effort does not get satisfactory results. Some key elements of education are not included in the training component or workshop, as they are considered to be controlled by every educator who has been on duty in the field. Meanwhile, all parties realize that there is something wrong in education in Indonesia, so that Indonesia lags behind its education by other countries, education in Indonesia is currently ranked 60th of 130 countries in the world. The elements educate very closely with the philosophy and

psychology of education, so that anyone with an educator profession must master it. Formation of memory in the brain is one of the basic psychology of education, if this one is not understood by educators then any attempt to fix it will not get the expected results. To refresh the educators' understanding, this text covers a bit about memory formation.

## II. METHOD AND DISCUSSION

Memory in the brain comes from contact between the five senses with the environment. Memory formed the work of structures that exist in the central nervous system. This working model will be explained below

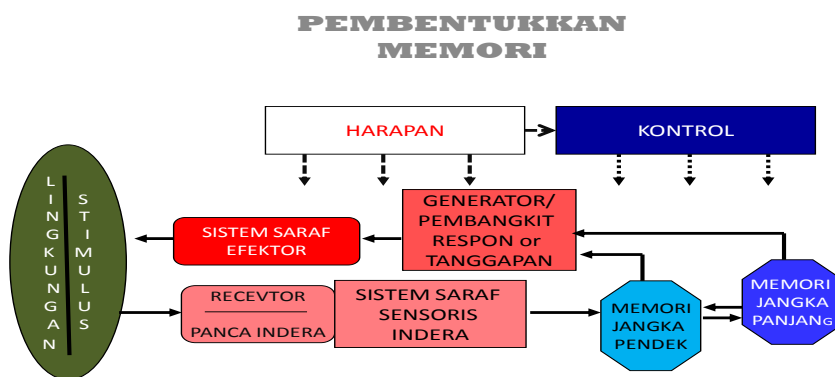


Figure 1 Memory Formation Model

The picture above explains, the concept as information from the environment will be accepted by the five senses, with sensory sensory information sensory information sent to the brain. The first concept is

stored in short-term memory or memory tersimpan only in a very short time. Short-term memory is sent to the generator or generator response, then by the effector nervous

system sent to the body part to answer excitatory.

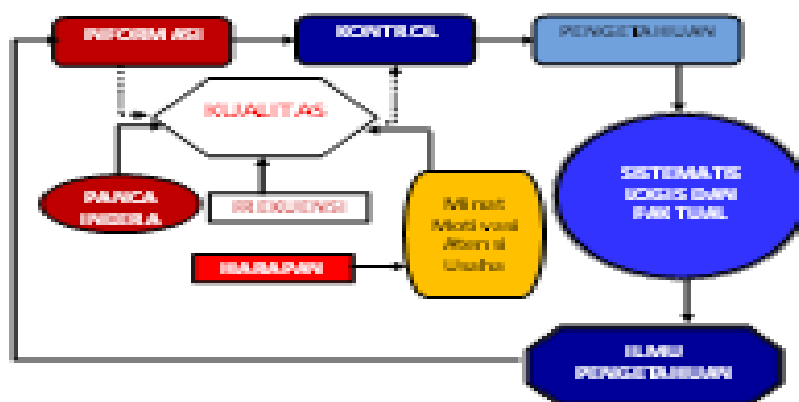
Short-term memory can be converted into long-term memory or memory that can be stored permanently in the brain for control work. This memory can be reused at any time to respond to excitement. New long-term memory requires a short-term memory process or path to use. Long-term memory can be used quickly or not via short-term memory paths when trained or frequently called / in use. Long-term memory that has not been used for a long time will be difficult to call for use, this event is called forgetful event or can be called memory forgot. Memory forgets can be recalled through its conceptual features.

Controls can work if there is hope that consists of motivation, attention, interest and effort. So if there is no hope control does not work, if control

does not work there is no concept stored in memory. The control in question in memory formation is the number of senses involved, so the quality of control depends on how many senses are involved, as many of the senses are involved the better the concept is stored in memory. Another control is the frequency, which means the more the information the better the concept is stored in memory.

All information stored as long-term memory will come out in response in the form of behavior. So it can be said that all memory controls one's behavior. So that character is controlled by memory. So to build a character must start by building up his memory.

By parsing how memory formation, the more visible red thread between character with education and between characters with the progress of the nation.



**Figure 2 Material Acquisition**

Recognized by the nations of the world, that education is the key to

advance the country. 80 years ago, when the 2nd world war ended, the





first question of the Japanese emperor was how many teachers remained, then the remaining teacher used to build the ruins of war, 25 years later Japan became a big country. During the cold war, the United States was left behind by the Soviet Union, marked by the success of the soviet Union to fly Sputnik into space. To counter the Soviet Union America gathers its education expert to formulate a new curriculum in a more advanced direction, the result is that America can land Apolo on the Moon. Once again that education is the key to the progress of a country.

Forty years ago, Indonesia was one of the countries chosen by Malaysia to be a place of education for the nation and succeeded. Ten years later turning around, Indonesia made a visit and attended educational seminars in Pulau Penang Malaysia. Currently the result of the International assessment, Education in Indonesia lags far behind by Malaysia. Vietnamese education suffered a long stagnation when they suffered a battle of sodara. Many Vietnamese who were forced to evacuate to avoid the danger of war Sodara, including to Indonesia. Vietnamese refugees in Indonesia are working odd jobs, among them being servants in schools. 25 years ago Vietnam sodara war ended, his country called all his people in evacuation to run all aspects of post-war life. Refugees from Indonesia some became teachers, principals and education managers. Currently the

results of Vietnam's international assessment of Vietnam is better than Indonesia.

From the description of the question arises, what's with education in Indonesia ?. To get the answer to that question we must reveal the retreat. Has the educational profession occupied by the holder? more dive again, has the basic education controlled by educational implementers? for that let's look at the basic education. Basic education that there are 3 main components, namely Curriculum, Learning Theory, and Teaching and Learning Process. The curriculum as the foundation of the modern education movement. The curriculum must be mastered by every owner of the educational profession. Curriculum formulated on the basis of the wishes of the framers, the reversal of a country can dikendalikan by curriculum educational institutions. The main curriculum content is the expected goal

In the formulation of objectives can be developed concepts that must be mastered learners, so that the curriculum developers will formulate Strategy learning to achieve goals. To see whether or not the national educational objectives need to be thorough evaluation or assessment of the program in the implementation of the curriculum.

An educator must master the theory of learning, how to fill the memory in the brain. Filling memory in the brain means having to know how to work ortak. each expressed by





Benjamin S. Bloom, ie Level of competence cognitive. Every level of age ahapan learners have their own way to collect the contents of the memory so that an educator must master the science of the development of the behavior of learners (Educational Psychology) each level of educational unit. That is why in the curriculum of Education Personnel

Institution (LPTK) there is a course of Educational Psychology. In addition to the objectives of the curriculum achieved educators should be able to formulate the process of teaching and learning. Thinking about the process will result in every educator planning new learning methods and approaches at any time.

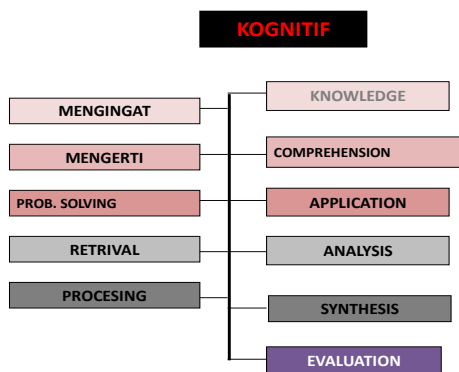


Figure 3 Cognitive Level

If an educator always thinks, speaks and acts like that then there will be a specific permanent behavior of an educator. Such behavior needs to be owned by an educator before carrying out his duties, therefore it becomes the main duty of LPTK and professional education organization including PGRI to formulate it.

A country that does not care about its educational curriculum means getting ready to be abandoned by other countries in this modern century. Therefore, Indonesia should continue to think of curriculum that

can support the progress in the future. Every holder of the educational profession must participate in understanding, thinking and developing the curriculum. It is difficult to compete with other countries that are more advanced than Indonesia, as Coordinator Coordinator of Region IV West Java Banten said in the speech of National Awareness Ceremony April 17, 2013 "If we start to move forward we do not mean we will be better than the country that has left us , because they will also continue to do things to keep



going forward "so at least we are not too far behind by them. More importantly it should be our homework to avoid being left behind by a newly independent small country like East Timor.

In order to what is mentioned above is achieved it is appropriate we clean up to nurture professionals to become professional. Efforts have been made by the Indonesian government through the Ministry of Education which is now broken down into kemenristekdikti and kemendikbud. Since 2004, educational staff have been boosted by their professionalism. It is not as easy as reversing the hands of this effort is still very heavy for Indonesia. It's been too long for every educational force to develop his behavior to be permanent in the wrong direction, so it can be said to be a character.

Three professional elements of educators, the first experts in the field of education which means must master the curriculum, master the concepts that must be taught, mastering the methodology of learning. The two should continue to work on improving their education skills by working with those who can improve their education skills. Third must run the code of ethics of educators. If these three elements are owned by an educator Insha Allah will no longer sound chaotic in the education domain of Indonesia.

The problem is still warm about the National Exam. If the curriculum is an essential component of modern education, it must be consistent with everything mandated by the curriculum. Achieving the objectives of the curriculum becomes the benchmark of educational success of an educational institution, even the benchmarks of a country's progress. To find out whether or not the objectives that have been formulated in the curriculum should be held nationally or nationally. So if there is a problem that arises in relation to the national exam, do not negate the national exam, but the problem must be solved.

LPTK and teacher profession organization including PGRI is a point of hope to answer all education problems in Indonesia, even all the crisis that is facing this nation, especially the problems related to the nation's morality, only through education can be completed. The steps to correct it are clearly detailed in the science of education. LPTK and teacher profession organizations must close the line and immediately save the country. Many things have to be reviewed by LPTKs and teacher organizations in the implementation of education in Indonesia, which later became the cause of the problem. To do so requires the full trust of the government that the LPTK and teacher profession organization is the way out of all the problems in the



country. So it is only natural if the budget for the implementation of education is improved. For LPTKs and teacher profession organizations to work carefully and academically, there should be no emotional and lustful elements, since LPTK and teacher profession organizations will eventually dissolve into the problems they are solving.

### **III. CONCLUSION**

On this occasion I appeal to all this attendees, especially for educators, our task ahead is getting harder because for now almost no concept has been obtained from the study of science used to face everyday life. Learners get knowledge only limited to the door of the class, life outside the class does not use the knowledge obtained from within the classroom. Very different from the reality found in neighboring countries, one example I found; a child in Malaysia, I was riding a cable car on a hillside with 5 graduate students from Indonesia, in front of us an estimated 10 year old boy, suddenly the cable car stopped, we were nervous because we were inside the train already around 2 km from the start, the boy saw our anxiety, and he immediately said "sir, lady do not worry, this train is controlled by computer, we know computer will not lie there is usually a little annoyance but computer will keep working, malaysia make this solely to make the

whole nation happy in the world ". This is an example of a school education product, which means a curriculum product. Let us help the government program to build character and educate the nation of Indonesia, by continuously evaluating and improving the education curriculum.

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## ELEMENTARY PRE-SERVICE MATHEMATICS TEACHER SELF EFFICACY BELIEVE

Darta<sup>1</sup> & Siti Maryam Rohimah<sup>2</sup>,

<sup>1</sup> Mathematics Education, University of Pasundan Bandung

<sup>2</sup> Program Primary School Teacher Education, University of Pasundan Bandung

<sup>1</sup>darta\_pmat@unpas.ac.id & <sup>2</sup>sitimaryamrohimah@unpas.ac.id

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**Abstract.** This study aims to know how much the level of self-efficacy, analyze each indicator of self-efficacy, analyze each statement of self-efficacy, and determine alternatives to increase mathematical self-efficacy in the final grade Elementary Pre-service Teacher. The method in this study is a qualitative research method in the form of analysis descriptively by using a self-efficacy questionnaire. The data obtained is the mathematical self-efficacy scale of elementary pre-service teachers. Population in this research is all final year student (class of 2013) at elementary pre-service teachers of Pasundan University. The sample of the research is taken by purposive sampling, which are 149 students from all population. The results obtained from the self-efficacy questionnaire analysis that the average student has a moderate self-efficacy level. The best indicator high self-efficacy of it an indicator to 6 (I-6), this means that a student is good enough to use previous experience as a measure of success. Other than that, One statement of the highest averages were students joined in the group work when getting the task group. So, a graduate student is able to interpret that previous experience and group work will bring confidence to the success in learning.

**Keywords:** self-efficacy, mathematics, elementary pre-service teacher.

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### I. INTRODUCTION

Every individual has their own way to achieve maximum learning outcomes, including having confidence in her/his ability to perform a task or action required to achieve the learning outcomes. Individual's belief regarding the competence him to succeed in doing his work was interpreted as self-efficacy (Dzulfikar, 2013). According to Bandura (2008), self-efficacy is a person's beliefs about their capabilities to influence the expected results. In this case, the expected

results in the form of teaching-learning outcomes. Teaching is a process of making learning happen in a person. Therefore, an important component in teaching that contributes to a person's learning outcomes is self-efficacy (confidence).

Self-efficacy is important for everyone, including students. The student is the successor of a nation and as an agent of change. Students must have self-efficacy a good order to achieve satisfactory academic results. One of the compulsory



subjects that students study Pendidikan Guru Sekolah Dasar (PGSD) is the subject of mathematics in PGSD which consists of subjects: basic concepts of elementary mathematics, mathematics instructional materials and media in elementary school: low-grade math, and high-grade math. Self-efficacy related to the subject of mathematics called mathematical self-efficacy. Mathematical self-efficacy is an important component in learning mathematics that must be developed. In accordance with the opinion of Unlu & Ertekin (2013) that affective domain influence mathematics learning and teaching such as cognitive domain. One of the most important affective factors is self-efficacy.

There are four sources of information self-efficacy by Bandura (in Setiadi, 2010; and Somakin 2010) that contribute to the construction of self-efficacy, the experience complete (*mastery experience*), the experience of others (*vicarious experience*), social approach or verbal (*verbal persuasion*), and psychological and affective status (*psychological and affective states*). Additionally, Bandura (in Hendriana, 2017) states that the degree of self-efficacy refers to the three following dimensions:

1. *Magnitude/level* dimensions, namely how students can overcome learning difficulties, such as the view is optimistic in doing the task or job, how much interest in the subject or tasks, developability and achievement, saw a difficult task as a challenge, learning according to

the schedule that has been set up, and be selective in achieving its objectives;

2. *Strength* dimensions, the confidence level of students in overcoming learning difficulties, such as trying to improve the performance, commitment to carry out the task or job, believe and realize the advantages, persistence in completing tasks, have a positive goal, and doing things, and motivated either to yourself to develop itself;
3. *Generality* dimensions, namely confidence in the ability of self that takes place in a specific domain or applicable in a wide variety of activities and situations, such a respond different good situations, making the experience of the past as a way to achieve success, find and like new situations, able to cope with all situations effectively, and try a new challenge.

The third dimension shows that self-efficacy impact on matters as diverse as the impact on the planning of actions to be carried out, the amount of effort, endurance in facing adversity, resilience to failure, thought patterns, stress and depression, and the level of achievement realized (Hendriana, 2017). Therefore, from the achievements of someone we can see how much the level of self-efficacy that he had, including self-efficacy mathematically.

The relationship of self-efficacy in mathematics learning by Somakin (2010) that a person who has self-efficacy, high certainly has high self-



confidence and know him well. Students who have high self-confidence, then how to solve a given problem is not enough that only one way, but worth trying in various ways. Of course, that a person who has self-efficacy high that he would not stop learning, even though she had graduated. Akay (2010) states that self-efficacy has been found as strongly predictive of performance math. In other words, the majority of studies suggest that there is a positive correlation between attitudes towards mathematics and successful.

However, from the observation by researchers to PGSD students learn math that gets great results do not always seem to have a good self-efficacy. Therefore, the authors wanted to know how much the level of self-efficacy PGSD students towards mathematics courses PGSD, analyze each indicator of self-efficacy, analyze each statement of self-efficacy, and determine alternatives to increase mathematical self-efficacy PGSD students.

## II. METHODS

Based on the problems and objectives that have been formulated, then the method in this study is a qualitative research method in the

form of analysis descriptively by using a questionnaire adopted instruments of Bandura (2008). The subject of this study of 149 college students, taken from the final level Study Program of Elementary School Teacher. In this study, a questionnaire was made is questionnaire self-efficacy consisting of 6 indicators and 20 items made a statement that must be answered respondents with a scale from 0 to 100. The questionnaire was distributed to as many as 149 final year students (class of 2013). Data from the questionnaire are then tabulated and analyzed to look for the average scores of each statement, the average scores for each indicator, and overall average.

## III. RESULTS

The result of questionnaire mathematical self-efficacy analysis of the final level of PGSD shows the average score for 20 items of a statement from the questionnaire is 71,38 and standard deviation 9,954. The minimum score is 0 and the maximum score is 100, so the average 71.38 belongs to the moderate self-efficacy category. Data on the calculation of mean and standard deviation are presented in Table 1.

Table 1. Descriptive Statistics

	N	Minim um	Maxi mum	Me an	Std.Devia tion	Varia nce
Self- efficacy	149	41	95	71. 38	9.954	99.074
Valid N (listwise)	149					

Furthermore, since the overall average is divided into six indicators and searched an average of six indicators. The average indicators *self-efficacy* presented in Table 2 below:





Table 2. Average Indicators *Self-efficacy*  
 Table 2 shows the best indicator high self-efficacy of it an indicator to 6 (I-6),

Indicator s	Statement	Average
I-3	I joined the group work when getting the task group	81
I-5	I love learning group for making I better understand the material that is tough	79
I-6	I'm getting the spirit of learning in the subjects of mathematics more after getting a good grade on a math course before	79

Which averaged 76. this means that a student is good enough to use previous experience as a measure of success. Inversely with the lowest indicators is indicators averages to 4 (I-4) with an average of 69. On this indicator, the students are still weak in committing to carry out duties as a student. Students are still many who do not execute duties as a good student. Therefore, this indicator could be a reference for faculty or students themselves to be able to perform the way that students can make duty as a student well.

For more details, then look for any statements that have self-efficacy a high and self-efficacy is low. In this case, taken respectively 3 statements of high and low statements. The data presented in Table 3 and Table 4 below:

Table 3. Average High Statements *Self efficacy*

Dimension	Expressions	average
Level	Students feel optimistic (I-1)	70
	Students feel confident to complete a task or work on the subject of mathematics SD nicely (I-2)	71
Strength	Increasing efforts as well as possible (I-3)	74
	Committed to performing duties as a student (I-4)	69
Generality	response to circumstances that vary in a way that is good and positive (I-5 )	71
	Guided by previous experience as a measure of success (I-6)	76



Table 4. Average Low Statements *Self-efficacy*

Indicators	Statement	Average
I-4	I believe I can overcome the difficulties of its own problems without help from others	58
I-5	I'm still learning through a friend invited to play	60
I-1	I have taken all the courses elementary mathematics properly	65

From Table 3, we can see the self-efficacy of students most high that on one statement on the indicator 3 (I-3). If we connect average indicator 3 in Table 2 is also one of the highest compared to other indicators. One statement of the highest averages were students joined in the group work when getting the task group. This is because of the majority of elementary mathematics lectures, students are always given the task group in completing its tasks, so that in this statement self-efficacy of his high. Similarly, the statement from the I-3, one of the statements of the I-5 also scores self-efficacy were high enough that students prefer to learn groups because it makes them more difficult to understand the material. So, the job of the group given the lecturer during lectures is quite effective in the process of student understanding of the material that the lecturer taught. The last statement the same get a high score that is one of the statements of the I-6. This statement is more enthusiasm for learning on the students in other math courses after getting a good grade in a

course of mathematics previously. This statement is a reference to the success of a student in all subjects studied elementary mathematics. For example, someone who gets good grades on the subject of the basic concepts of elementary mathematics in the 1st semester, he got good grades are also on course materials and instructional media SD 3th semester. And so on.

Conversely, in Table 4 seen some indicators show that the self-efficacy of students in this state is still weak. Statement of the lowest averages is one of the statements of an indicator I-4. If we look at the average I-4 is also the lowest among the other indicators. This means the student has not been able to commit to performing duties as a student, especially in terms of their faith can overcome adversity own problems without help from others. Moreover, the statement of other indicators that support an earlier statement that one of the statements of indicators I-5 that the students have problems when there are friends who invite to play. Most of the students come to play



rather than to continue to learn. And the last statement that the average low is also that the implications of two previous statement. In this statement, the students still do not understand all the elementary mathematics courses well. This is why the final grade students of PGSD still do not have a good level of self-efficacy. So that necessary measures can improve self-efficacy student. Mathematically, such an increase in good quality learning, provide motivation/n encouragement that the students do all the activities well and giving guidance to any task or job that the students can do well.

#### **IV. DISCUSSION**

The result showed that the graduate student level PGSD still do not have good self-efficacy. Therefore, it should be made better. Because based on some research results described by Akay, H. & Boz, N. (2010); Albayrak, M. & Unal, ZA (2012); Ayotola, A. & Adedeji, T. (2009); Hassanzadeh, R. Ebrahimi, S., & Mahdinejad, G. (2012); Memnun, DS, Akkaya, R., & Hacıömeroğlu, G. (2012); Maddux, JE (2000); and Somakin (2010) can be taken some conclusions as follows: self-efficacy prospective teachers towards mathematics literacy are important predictors in the belief solve mathematical problems, self-efficacy is a structure which affects test anxiety. Students who have self-

efficacy high decreases test anxiety, self-efficacy significant influence of style explains the mathematics achievement, that style describes a person affects the achievement and student learning outcomes.

Especially for dimension generality with the indicator "Guided by previous experience as a step to success", has reached an average of 76, the average value is high. A graduate student is able to interpret that previous experience will bring confidence to the success in learning. More away will give the prediction of the ability to teach mathematics. In accordance with the results of Sharma and Nasa (2014) which states that self-efficacy should be relevant to understanding educational outcomes as self-efficacy and motivation lead to specific behaviors that can promote or inhibit effective performance. The performance here can be interpreted academic performance in mathematics taught elementary school.

In line with the results of the above studies, the results of questionnaire mathematical self-efficacy PGSD final year students showed confidence every student in learning, learning process, and do the task subjects PGSD still not good math. If the views of each item questionnaire statement, some students are still many states that do not enjoy learning math, trying to cheat on the exam, have not been able to teach mathematics well as teaching



at the elementary school later, and still not confident when it should be an independent assignment. It can be predictive of them because there is no influence of the person (eg parents, teachers, etc.) so that each student can maximize his abilities and have confidence or confidence is good, so the effect on the level of self-efficacy him.

The value of the standard deviation of the data of self-efficacy PGSD graduate student based on the data in Table 1 equal to 9.953 (99.074 variances). It can be interpreted that the data self-efficacy has a high variability among students, so it is necessary to do research or a particular treatment in order to score the average self-efficacy is a graduate student higher and variance are lower, so that not too much gap (high and low) score of self-efficacy among students. The data analysis of this research is to be conducted further analysis of the correlation between for each self-efficacy indicator, the correlation with eye-related subjects of mathematics, so it will be able to determine alternatives to increase self-efficacy.

Correlation analysis to spy math courses required to be sought against any subjects who had a high correlation so as to look for alternative solutions to spy subjects that have such a high correlation. In the meantime, researchers assume that the required treatment to strengthen

eye-subjects related mathematics, among others: Basic Concepts of Mathematics Elementary, Learning Mathematics Elementary Low class, Mathematics Learning SD high grade, Materials and Media Learning Mathematics, Problem Solving math, and Planning Learning was. However, further research will answer exactly what is assumed above is only an assumption or have a strong scientific argument, based on the facts of the research undertaken. Based on the results of the analysis, the study program PGSD may benefit for the improvement of Curriculum Studies such a way that the future can produce students who master the material math, ready trained and ready for work, has self-efficacy is high and has a good character in teaching mathematics Elementary School.

## **V. CONCLUSION**

In conclusion, the first is the level mathematical of self-efficacy PGSD final level students are in the moderate category with an average score of 71.38. The second, which is the highest indicator of average is an indicator to 6 (I-6) by 76 as students are quite good in using previous experience as a measure of success. Indicators of the lowest average is an indicator to 4 (I-4) with an average of 69 are still weak in a committed student to carry out duties as a student. The third one of the statements of the highest average is



the students joined in the group work when getting the task group, and a statement that the lowest average is students do not yet have confidence that we can overcome the difficulties of its own problems without help from others. Lastly, the results of which have been presented to us looking for alternatives to increase mathematical self-efficacy student is one way to improve good quality learning especially on the eye-related subjects of mathematics, provide motivation/encouragement that the students do all the activities well, and giving instruction about any task or job that the students can do well, so as to provide self-efficacy (confidence) and the good character of the final year students to teach mathematics in primary school later.

#### **A. ACKNOWLEDGMENTS**

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# IMPROVING STUDENTS' SCIENCE PROCESS SKILLS (SPS) THROUGH PRACTICUM OF DNA IN BIOTECHNOLOGY COURSES

Mia Nurkanti

Program Studi Pendidikan Biologi FKIP Pasundan University, Bandung, Indonesia  
mia.nurkanti@unpas.ac.id

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**Abstract.** This study was aimed at investigating university students' ability in inquiry learning. The study involved 7<sup>th</sup> semester students of a private teacher training institution in Bandung who were taking biotechnology in 2016. The method employed in the study was experimental one with one case shoot study design. Observation sheet was used as data collection instrument. From the three classes observed, the following data was obtained class A score 82.5, class B 71.5 and class C 77.5 the average SPS for observation, implementing the concept, designing experiment, interpreting, predicting, asking question, formulating hypothesis, playing experiment, using tools, applying concept and communicating with a few students still had difficulties despite regular practices of using the tools in the laboratory. Further study is necessary to be developed and be conducted on participants from different major.

**Keyword:** inquiry, scientific process skill, DNA isolation, DNA.

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## I. INTRODUCTION

The word "inquiry" is taken from "to inquire", which means to join or to be involved in asking questions, finding information and conducting investigation. It enables students to develop intellectual capabilities related to reflective thinking process. As developing thoughts is the main goal of education, developing ways to achieve the goal is of importance.

Learning is an interaction process among students, teachers and learning resources within a learning

environment. Learning is seen as supports given by teachers to enable acquisition of knowledge, skills, and attitude and belief within students. In other words, learning is a process of helping students to be able to learn well.

Although learning and teaching may be similar in several aspects, they have different connotation. In educational context, teacher teach students in order them to master the designated objectives (cognitive aspect), to change their attitude (affective aspect), and skills (psycho-



motoric aspect). In that sense, it seems that teaching only involves one party: teachers.

Quality learning depends on students' motivation and teacher's creativity. The combination of both highly motivated students and creative teacher may lead to the achievement of learning objectives. The achievement of learning objectives can be identified from the changes of students' attitude and ability. Given those supportive aspects for learning objectives achievement and with addition of well-designed learning process, would accelerate the achievement of the objectives.

Students' capability is their ability to use their thinking, intelligence and act efficiently and effectively to achieve particular objectives, including creativity. Process is defined as a set of complex skills used by a researcher in conducting scientific research. It is a broad concept which can be broken down into smaller components that should be mastered by a student to conduct a research.

## **II. RESEARCH METHODOLOGY**

The study was conducted on prospective teachers / students as many as 154 students who took the course of microbiology in semester 7 years anjaran 2015-2016 at a LPTK in Bandung in 2017. Consists of 3

classes A, B and C which the average class consists of 50 person. Samples were taken randomly from the 3 classes. The study used a quasi experiment with a one-case study design study. Then observed using observation instruments. The observed observations consist of observation, implementation of the concept, designing experiment, using tools, and planning experiments.

This research employed experimental method with one-case shoot study design. The first step of isolating DNA was to blend the fruit as the source of DNA to break the cell membrane and core membrane mechanically. The next step was to filter the fruit blend and put the extract into solution of detergent and salt. Salt has the same function as SDS in isolation of DNA in white blood cell genome. It gave ionic condition for more stable reaction (Harley, 2005:410). The solution was stirred to avoid it from producing bubbles. It is also to promote larger cell particle and detergent movements for faster reaction as detergent can break cell membrane.

Afterwards, the solution of fruit extract, detergent and salt was put into a reaction tube, given drops of cold alcohol until it produced white ring between the mixture and alcohol.



### III. FINDINGS AND DISCUSSIONS

**Table 1. The average score Skills of Student Science Process**

Observed SPS components	Scores			Description
	A	B	C	
1. Observing	80	60	75	Observing the result of DNA isolation
2. Grouping/Classifying	75	70	70	Applying concepts of detergent and salt functions
3. Interpreting	80	70	80	Choosing appropriate practicum tools
4. Predicting	80	70	80	Following right instructions
5. Asking questions	90	60	75	Active or non active
6. Formulating hypothesis	80	70	70	Make hypothesis
7. Planning Experiment	85	80	80	Following right instructions
8. Using tools and materials	85	60	70	Choosing appropriate practicum tools
9. Applying concept	85	75	80	Producing white lumps
10. Communicating	85	80	80	Communication student
Average score	82.5	70.5	76.5	Fair

Description: 90-100=very good, 80-89 =good, 70-79=fair, 60-69=poor, <59=bad

Based on the observation along the learning process, class A has average score of 82.5 which means good. Class C's average score (70.5) is lower than other classes and Class B's average (76.5) is in the middle. Class A score 82.5 was good but class B and C poor. So the student in class B and C must be often workshop with practice in laboratory.

Sanjaya (2008:196) explained that there are several key features of inquiry learning. Firstly, it emphasizes students' activity of searching and discovering, which encourage them to be learning subjects. In the learning process, students do not only act as the one receiving knowledge from the teacher but also have role in discovering the core of the subject being taught. Secondly, all students' activity are geared towards seeking and finding particular matter being taught to nurture their self-belief. In that sense, inquiry approach puts teacher not as the source of learning but as

facilitator and motivator for students to learn. As classroom activities are mostly in the form of asking and answering questions, teacher's mastery of asking question is essential in this type of learning. Thirdly, the purpose of inquiry learning is to nurture intellectual capabilities as part of mental process. It suggests that students are not only required to master the lesson but also to utilize all of their potentials in learning. Learning, on the other hand, requires interaction between teacher and students

Rustaman (2003) suggested that the process skill is a skill that involves cognitive, intellectual, manual and social skills. Cognitive skill is involved as in process skill students are required to utilize their thoughts. Manual skill is employed as students need to use and assemble tools and mix materials. Social skill is used when students interact each other in learning process, for instance in discussing observation results.



Considering the skills involved, process skill is a good way of learning as it offers real experience of learning through direct experience to the materials being studied.

Science process is a set of complex skills employed by a researcher in conducting scientific investigation. Dahar (1996) elaborated that scientific process skill (SPS) is a student's skill of implementing scientific methods in understanding, developing, and discovering knowledge. SPS is essential for students as basic skills to discover new knowledge or to develop already existing knowledge further. Moreover, Dimiyati and Mudjiono (2009) stated that SPS offers the benefits as follows.

1. SPS could trigger scientific stimuli, which enable students to understand scientific concepts and facts better.
2. It offers students to utilize knowledge instead of only telling or listening for knowledge. It encourages students to be more active.
3. SPS encourages students to learn about scientific processes and products at the same time.

SPS consist of several skills, namely:

#### 1. Observing

Observing is a process of collecting data on particular phenomenon using one's senses. To be able to collect relevant and sufficient facts from an observation, a student has to employ his senses (listening, seeing, feeling, smelling and sensing) to the full.

#### 2. Grouping/Classifying

Grouping is a system of classifying certain items based on particular criteria. It involves activities of seeking for similarities or differences, contrasting features, comparing, and determining basis for the grouping.

#### 3. Interpreting

Interpreting is making tentative conclusion based on the collected data. Observation result would be meaningless without any interpretation. Hence, after observing, every finding is noted and connected with other findings. Then, one can derive some patterns as a basis to draw final conclusion.

#### 4. Predicting

Predicting should be based on reliable observation result (Firman, 2000). If a student can use the patterns derived from his observation and make a prediction of what might happen on something that he has not observed, then he does have the skill of predicting.

#### 5. Asking questions

The skill of asking questions takes form of asking what, why, how; questions which requires explanation or hypothetical.

#### 6. Formulating hypothesis

Hypothesis is a prediction with particular reasoning as its basis.

#### 7. Planning an experiment

This skill reflects students' ability to choose tools and material to be used in an experiment. They also have to be able to determine the variables: which should be controlled and which should be changed. Furthermore, they should be able to determine what to observe, to measure, or to note, how to conduct



an experiment and what steps to be taken. Eventually, they should be able to decide what to do with their observation result.

8. Using tools and materials

To know why and how we use particular tools and material, students need to have direct experience of using them in real experiment.

9. Applying concept

This skill is reflected when a student is able to apply the concepts that he has learned in a new situation or when he applies the concept to explain new phenomenon being researched.

10. Communicating

This skill involves skills of reading charts, tables, or diagrams of an experiment. Describing empirical data

through charts, tables, or diagrams is also part of this skill. Firman (2000) defined this skill as skill to communicate ideas or findings to others.

Of all skills comprised above, only observing, applying concept, using tools and planning an experiment were investigated in this study. It is due to the researcher's personal observation that some students were having difficulties in using tools although they had had experiences in using them in several classes. Hence, this study was geared toward addressing whether isolating DNA from fruits could improve students' SPS.



*Figure 1. Isolating result of papaya DNA*

(Nurkanti, 2015)







**Figure 2. Isolating result of banana DNA**

(Nurkanti, 2015)

#### **IV. CONCLUSIONS AND RECOMMENDATIONS**

It is apparent that the research is not completed as cognitive, affective and psychomotoric aspects have not been measured. However, from the researcher's observation, it can be seen that the students' skill in observation, implementing the concept, designing experiment, interpreting, predicting, asking question, formulating hypothesis, playing experiment, using tools, applying concept and communicating an experiment is relatively fair.

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# ANALYSIS OF INTERACTION AMOUNG SCIENCE, TECHNOLOGY AND SOCIETY ASPECTS IN STUDENTS THEMATIC BOOK OF V GRADE ELEMENTARY SCHOOL

Azis Lukman Praja<sup>1</sup>, Siti Sholiha Nurfaidah<sup>2</sup>, & Moh. Nurhadi<sup>3</sup>

<sup>1,2, &3</sup> PGSD FKIP Pasundan University, Bandung, Indonesia

<sup>1</sup>azisunpas@gmail.com, <sup>2</sup>sitinurfanurfaidah@unpas.ac.id, & <sup>3</sup>mnurhadi@unpas.ac.id

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**Abstract.** Mastery of science literacy will make easier students to adapt to the advancement of science and technology in the present and future. One attempt to improve the ability of science literacy through the analysis of textbooks lessons. The interaction of science, technology & society is a scientific aspect of science literacy. This research analyzes the literacy indicator of science in the thematic book of grade V SD students. The type of research used is descriptive, by collecting data in the form of documentation study. The sample in this study is several pages in one book analyzed taken by random method using multistage sampling technique. The results show 8.5% of the book presents aspects of interaction of science, technology and society. This aspect has not been presented in the entire theme of the book. The themes 4 and 5 are not presented at all, while themes 1, 2 and 3 each present 13%, 22% and 5% of them. The following findings show that Book Y rarely presents aspects of the interaction of science, technology and society. In other words, this book of Y does not emphasize material that supports the contextual mastery.

**Keywords:** Science Literacy; Interaction of Science, Technology and Society; Analysis of Lessons Textbooks.

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## I. INTRODUCTION

Science and technology are part of the 'culture' of modern society. Where their daily lives are significantly influenced by science. One is shown by the rapidly increasing number of science and technology products that closely with the daily life of the community (Miller, 1996 in Yuenyong & Narjaikaew, 2009). So in the era of intense international economic competition, graduate users need skilled staff, those who have good understanding and ability of

science to meet the demands of the times.

The abilities associated with the use of science and technology are raised by the term science literacy. Literacy Science involves individuals developing a good understanding of the facts and processes of science inquiry, and awareness of the relationship between science, technology, and society (Chabalengula et al., 2008). Mastery of science literacy can make it easier



for students to adapt to the advance of science and technology in the future.

However, Mastery of science literacy can not be brought up in a short time, but it takes a long time. One of the steps to form the ability of science is through education. Matters relating to science literacy, should be involved in all aspects related to the learning process so that the ability of science literacy can be mastered by students.

In the learning process, textbooks are the closest and directly related to the students. Yusuf (2008) also states that textbooks are one of the tools to improve science literacy. In addition, previous research reported that most science teachers use science textbooks for most of their learning time. This becomes a big problem because almost all of them believe that textbooks play a major role in learning (Lumpe and Beck, 1996 in Kirk et al, 2001). Based on this, research on textbooks is needed as one way to improve the quality of education in Indonesia.

Chiappetta et al (Amelia, 2009; Chabalengula et al., 2008; Lahiriah, 2008; Riadiyani, 2009; Nurfaidah, 2014) states four aspects of science literacy that can be used in analyzing lesson textbooks. These four aspects are Science as a body of knowledge; Science as a way of investigating; science as a way of knowing; and Interaction between science, technology and society. As for this research, it is devoted to studying one aspect that is aspect of Interaction between science, technology and society. This aspect describes the consequences or effects of science on

society. This aspect is a science literacy dimension in context. This science literacy criterion covers the application of science and how technology can help or harass humans. In addition, it involves social issues and careers.

The book chosen in the study is a book that is applicable and widely used in the learning process. Based on the current curriculum (curriculum 2013), the thematic book of 2013 curriculum becomes appropriate to be the subject of research. As for V grade elementary school is chosen because at this level students should have prepared themselves to take the final exam to be conducted in the next class, which means students must have understanding and maturity of the material in class V.

The purpose of this study is to obtain information about the presentation of science literacy aspects of interaction among science, technology & society on each theme and on the whole textbook of the lesson. The results of this study are expected to provide benefits for various parties, including the following: 1) For the author of textbooks lessons. The results of this study can be used as a consideration for writing textbooks of quality lessons based on science literacy. 2) For other researchers. The results of this study can be used as consideration for the implementation of further research, either as a reference, support, or comparison of the concept of science literacy. 3) For the government. The results of this study can be used as a consideration in establishing a policy on the



guidelines of the provision of making textbooks lessons that are suitable for use in schools.

## I. METHOD

The population in this study is all the material on the thematic book of students of class V that are analyzed. This book is then declared as a book Y. The samples in this study are several pages in the analyzed book taken in a random manner. Samples were taken by multistage sampling technique. As in this research used 3 phase sampling technique, as follows: Stage 1: Theme Selection. The theme

analyzed is taken as much as 50% of the total number of themes in the book analyzed. Stage 2: Subtema Selection. The subthemes analyzed were taken as much as 30% of the total number of subthemes present in each chosen theme. Stage 3: Page Selection. The analyzed page is taken as much as 30% of the total number of pages that exist on each selected subtheme. It is adapted from the Journal of research in science teaching (Chiappetta, Fillman & Sethna, 1993). The more detailed sampling of Y book pages is shown in the following table.

Table 1  
Sampling Research

Book	Theme (50%)	Sub Themes (30%)	$\Sigma$ Total Pages	$\Sigma$ Pages Identified (30%)
Thematic Class V Elementary School	1	1	64	19
	2	3	34	10
	4	2	39	11
	6	2	42	13
	8	3	44	13
<b>Total</b>	<b>5</b>	<b>5</b>	<b>223</b>	<b>66</b>

The type of research used in this research is descriptive research with documentation method or document analysis method. In using the documentation method, the researcher holds a check-list to search for a predefined variable. The data obtained is then processed by calculating the number and percentage of presentation of science literacy indicator on one aspect of science literacy for each chapter of the textbook used. The instrument

used as a tool for collecting the required data is an analysis sheet containing the science literacy indicators adopted from Chiappetta et al. (1991a in Amelia, 2009; Cansiz & Turker, 2011; Chabalengula et al., 2008; Lahiria, 2008; Riadiyani, 2009; Rusyati, 2009; Sandi, 2013). However, in this study only reveal one aspect of science literacy, namely the interaction of science, technology & society.

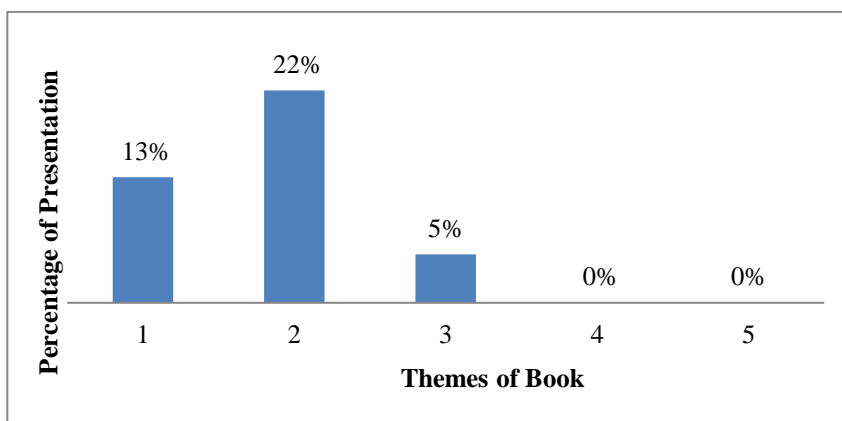


## II. RESULTS

The book analyzed is a thematic book of V grade elementary students which are used as a supporter of the 2013 curriculum in schools. Five of the nine themes in this book are selected for analysis, including: 1) Benda-benda di Lingkungan (theme 1); 2) Peristiwa dalam Kehidupan (theme 2); 3) Sehat itu Penting (theme 4); 4) Organ Tubuh Manusia dan Hewan (theme 6); 5) Ekosistem

(theme 8). The number of pages of the book analyzed in this study is 66 pages, the entire paragraph of the material contained in the book, except for pages that only contain reviews and vocabulary questions, and the inclusion of objectives and learning objectives.

The findings show the emergence of indicators of various aspects of science, technology and community interaction on each of the themes studied, as follows:



Graph 1. Percentage of Presentation Aspects of Science, Technology and Society Interaction on Book Y

Graph 1 shows that this interaction aspect of science, technology and society is not always presented in every theme of the book under study. In theme 1 there are 13%, theme 2 as much as 22% and theme 3 by 5%. While the theme to 4 and 5 is not presented at all, namely 0%. The materials discussed in themes 4 and 5 are Organ Tubuh Manusia & Hewan and Ekosistem.

The interaction aspects of science, technology and society consists of

five indicators of science literacy, namely: describe the usefulness of science and technology for the community; describes natural phenomena related to science, technology and society; showing the negative effects of science and technology for society; discuss social issues relating to science or technology; and mentioned his careers and occupations in the field of science and technology (Chiappetta et al. 1991a in Amelia, 2009; Cansiz &



Turker, 2011; Chabalengula et al., 2008; Lahiriah, 2008; Riadiyani, 2009; Nurfaidah, SS, 2014). The

following data presents an indicator of science literacy on the aspects of the book studied.

Table 2 Presentation of Indicators of Science Literacy Aspects of Science, Technology and Society Interactions

Indicators of literacy Science Aspects of Interaction Science, Technology and Society	TEMA					Σ	%
	1	2	3	4	5		
Describe the usefulness of science and technology for society	5	-	-	-	-	5	6
Describes natural phenomena related to science, technology and society	15	2	6	-	-	23	27
Showing the negative effects of science and technology for society	13	11	-	-	-	24	28
Discuss social issues relating to science or technology	3	21	2	-	-	26	31
Mention of careers and jobs in the field of science and technology	6	1	-	-	-	7	8
Σ	42	35	8	-	-	85	100

The total number of statements presented in book Y is 85 statements. The presented statements are found in Themes 1, 2 and 3 of 42, 35 and 8 statements. In this material several discussions are associated with the interaction of science, technology and society. Indicators discussing social issues relating to science or technology are often presented indicators compared to other indicators of this aspect, at 31%. While the least indicator presented is to describe the usefulness of science and technology for society by 8%.

### III. DISCUSSION

Literacy of science has an important role in the world of science education. As educators, researchers, and government (BouJaoude, 2002: Zembylas, 2002: Turkish National Education Department, 2006 in

Canzis & Turker, 2011) point out that science literacy is considered one of the main goals in science education. Therefore, everything related to the learning process, especially science learning must contain the values of science literacy. This means that every student who has received learning has the ability of science literacy, so they are ready to face the changing demands of science technology and knowledge in the future.

The enactment of the 2013 curriculum impacts on thematic learning that is typical for primary school education. Learning is no longer done on certain subjects, but rather incorporates several areas of study within an appropriate theme. This also affects the textbooks used. The material is presented in a theme and sub-theme consisting of several



fields of study. So that become the main attraction in this research, science literacy aspect that studied not only on science subjects as previous research. However, the indicator of science literacy analysis is done on the thematic book of grade V SD students.

The findings indicate the rarity of presentation of aspects of science, technology and society interaction in book Y is 8.5%. The results of research on textbook science curriculum KTSP conducted by Nurfaidah (2017) only presents 1.2% aspects of science, technology and community interaction. So that, if the data compared with the results of analysis in the previous book, the presentation of this aspect has increased by 7.3%. At least the current book has presented a greater proportion of the interaction aspects of science, technology and society. This at least illustrates that the importance of science literacy has begun to be considered in the preparation of student textbooks.

Approach of Community Technology Science is a learning approach that basically discusses the application of science in the context of human life daily. Therefore, the approach to Community Technology Science is called an integrated approach between science and technology issues in society (Nisbah, 2013). With this approach students are conditioned to be willing and able to apply the principles of science to produce simple technological work or thought solutions to regulate the negative impacts that may arise from the advent of technology products.

The findings of the scarce presented of interaction among science, technology & society in textbooks may be one of the causes of the low value of students' science literacy based on the PISA outcomes of 2000 - 2015 that put Indonesia at the bottom 8 to 2 rank of 65 countries (Arnet et al., 2013, Elianur, 2011; Utomo, 2011). As disclosed in the Word report (2007) that the level of mastery of science literacy learners aged 15 years in Indonesia is low. At this level of ability, Indonesian students are generally judged to be able to remember only scientific facts, terms and laws and use them in drawing simple scientific conclusions (Joseph, 2004 in Amalia, 2009).

Based on this, the book still requires an emphasis in presenting science literacy aspects of community science science interaction. This is in line with Cansiz & Turker (2011) which states that by emphasizing all aspects of science literacy, it will prepare the potential of science-minded citizens for the betterment of the nation and government more suited to rapid global change. Even according to Amalia (2009) textbooks that contain literasi science will be able to increase the average literacy skills of Indonesian students.

Lesson textbooks greatly contribute to the development of student competence through the acquisition, investigation, thinking process and application of knowledge that will ultimately shape the students to have the expected competencies. Therefore, the selection of qualified textbooks becomes a necessity in supporting learning. For now, it takes





textbooks that emphasize science literacy such as aspects of science interaction, community technology. So in the end the quality textbook will deliver quality output as well. Indonesian students can be more wise in interacting with technological advancements that continue to grow. Even among them must be able to create a new technology worldwide.

## V. CONCLUSION

Aspects of science, technology and society interaction are still rarely presented in book Y at 8.5%. However, when compared with the results of analysis in the previous KTSP book, the presentation of this aspect has increased by 7.3%. These findings suggest that book Y does not emphasize material that supports contextual mastery.

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# THE PROFILE OF AUTHENTIC ASSESSMENT ON IPA COURSE IN EDUCATION STUDIES PROGRAM OF ELEMENTARY SCHOOL TEACHER OF FKIP PASUNDAN UNIVERSITY

Aas Saraswati<sup>1</sup>, Ida Yuyu H<sup>2</sup> Moh. Nurhadi<sup>3</sup> & Uus Toharudin<sup>4</sup>

<sup>1,3</sup>Program Studi Pendidikan Guru Sekolah Dasar – Universitas Pasundan Bandung

<sup>2,4</sup>Program Studi Pendidikan Biologi – Universitas Pasundan Bandung

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**Abstract.** Authentic assessment is a process of collecting the various of the data that can provide a comprehensive, the development of learners that includes the cognitive, affective and psychomotor skills. This study aims to find out how to applicate of authentic assessment on science lectures in major PGSD FKIP Unpas. This research is a qualitative descriptive research. Participants in this study were students at the major PGSD FKIP Unpas. The instruments used were student perception questionnaires, observation sheets, and interview guidelines. Data analysis techniques used are planned to use descriptive analysis. The results Showed that the application of authentic assessment on science lecture in major PGSD FKIP Unpas has been applied Although not yet optimally. While the student response to the application of authentic assessment on lectures Showed positive results.

**Keyword:** Authentic Assessment, Science Lecturer, PGSD major

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## I. INTRODUCTION

Enhance countries can be seen from the quality of human resources and the quality of education contained in the country. This makes education is very important for the development of a country. Education can make human resources properly empowered. So even in Indonesia put education as the primary and essential. It can be seen from the contents of the 1945 opening of the fourth paragraph which asserts that one purpose of the Indonesian nation is the nation's intellectual life.

One form of educational innovation in Indonesia today is the implementation of Curriculum 2013. Kunandar (2014) explains that this 2013 curriculum aims to prepare Indonesian man to have the ability to live as individuals and citizens who believe, productive, creative, innovative, and affective and able contribute to society, nation, state, and world civilization. The curriculum was developed in 2013 on the theory of "education based on standards"(standards based education), and the theory of competency-based curricula



(competency based curriculum). Education based on the standards set their national standards as a minimum quality of citizens broken down into content standards, process standards, competency standards, the standards of educators and education personnel, standards of facilities and infrastructure, management standards, standardized funding and assessment standards of education (Kunandar, 2014 ).

With regard to the assessment process in education, Permendiknas 27 year. 2007 and No. 66 year 2013 on the understanding gained Education Assessment Standards of education assessment is a process of collecting and processing information to determine attainment of learning outcomes of students who carried out systematically and continuously (Abdul, 2015). But unlike the assessment of conventional learning where the teacher only focuses on assessment is summative or assessment focuses on the results obtained by the students at the end of the learning process, the ultimate goal of education today is to develop competence of learners to pass judgment on the learning process that they do (Birenbaum & Dochy, 1996).

In the 2013 curriculum assessment is made using authentic assessment. Authentic assessment aims to measure a range of skills in a variety of contexts that reflect real-world situations where those skills are used. According Permendikbud No. 103 2014 2013 curriculum implement authentic assessment to assess the progress of learners that includes attitudes, knowledge and skills.

Hence the authentic assessment, assessment covering all aspects of the personality of students, such as moral development, emotional development, social development and other aspects of the personality of other individuals.

Kemendikbud (2014) defines authentic assessment (Authentic Assessment) as an assessment or measurement significance on the study of students to the realm of attitudes, skills and knowledge. so, authentic assessment is a form of assessment requires the learner to demonstrate the real world performance significantly, which is the essence of the application of knowledge and skills. Authentic assessment emphasizes the ability of the learner to demonstrate knowledge in a real and meaningful. The assessment activities are not just ask or tapping the knowledge that has been known to the learner, but the real performance of the knowledge that has been mastered. This is as expressed by Callison (2009) which says that authentic assessment is an assessment process in which involves a range of performance that reflects how students learn, achievement of results, motivations, and attitudes related to learning activities.

In connection with the definition of authentic assessment, some researchers have different views. Hart (1994) argues that authentic assessment is an assessment of performance in the learning process. But there are those who say that there is a difference between the performance appraisal with authentic assessment. As opinions Mayer (1992) which says that the difference



between the both is any authentic assessment is an assessment of performance, however, is not true. Authentic assessment can establish a valid assessment and accountability. This means that the results of these assessments can really interpret the ability of learners during and after the learning process. Therefore, the assignment given to students should be able to describe the competencies required in the assessment.

According to (Gulikers, Bastieaens & Kirschner, 2004) argues that there are five dimensions that are interrelated to create authentic assessments are:

1. Tasks or assignments that accommodate cognitive, affective and psychomotor learners. The task given should also be meaningful to them.
2. Classroom or learning environment should be able to support learners to be able to explore and optimize the capabilities, both in the cognitive, affective and psychomotor. Learning should be designed to provide a snapshot condition or situation that will be experienced by learners when they become a professional.
3. Social interaction. Factors in the social environment activities are divided into two kinds, namely in the form of collaborative activities, and individual activities. In collaborative

activities, authentic assessment obtained from looking at interactions between learners in solving a problem. While in individual activities, data authentic assessment done by looking at how each learner competing and trying to solve the problem individually.

4. Results of authentic assessment is something original assessment that describes the overall capability of each individual. The results of the assessment may take the form of a product or an idea of learners.
5. And authentic assessment criteria of the standard. The standards and criteria of authentic assessment is transparent assessment, the assessment focuses on the ability or competence to be possessed by learners, and assessment is conducted by using a rubric or portfolio.

The application of authentic assessment has the potential to bring a variety of benefits and advantages, which learners can play an active role in the assessment process, so as to reduce the anxiety of learners, and are not afraid of getting bad grades that can interfere with self esteem because Ratings authentic formed of an assessment of learning activities that are constructivism, meaning that the assessment carried out on the establishment of a knowledge learner



based on the experiences and problems found in everyday life, so it will feel more meaningful learning (Herrington, 1998). Authentic assessments provide valuable information to educators on the progress of learners and the success of the instruction. Through the curriculum in 2013, authentic assessment becomes a serious emphasis. In the execution of the authentic assessment educators must consider the balance between competence assessment of attitudes, knowledge and skills in accordance with the development of the characteristics of learners.

## II. METHODS

This study is a descriptive research study or assessment survey to profile of the student assessment in IPA learning process at PGSD study program Faculty of Teacher Training and Education (Guidance and

Counseling) of Pasundan University (Unpas) Bandung. reviewers do not provide treatment or treatment of research subjects, but only trying to uncover the data is. The instrument used was a questionnaire and observation sheet discussions, presentations, and assignments as well as an interview guide. Subjects were PGSD FKIP Pasundan University Students who take courses Basic Concepts IPA SD (KDISD), Learning science SD (PISD).

## III. RESULTS AND DISCUSSION

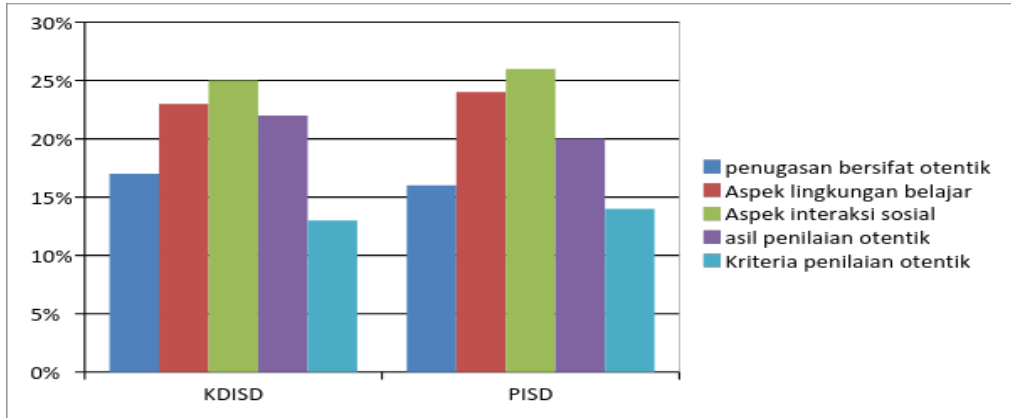
Data from the questionnaire concerning the application of authentic assessment conducted by lecturers obtained by looking at the response and perception of current students learning in science through the activities of discussion lectures, presentations, and assignments can be seen in the table below.

**Summary Table Percentage Achievement Indicators Assessment Authentic  
By Activity Discussion of Student**

No.	Indicator Rate Authentic	Percentage of Achievement (Course)	
		KDISD	PISD
1	Assignment is authentic	17%	16%
2	Environmental Aspects of Learning	23%	24%
3	Aspect Social Interaction	25%	26%
4	Assessment authentic	22%	20%
5	Assessment Criteria authentic	13%	14%



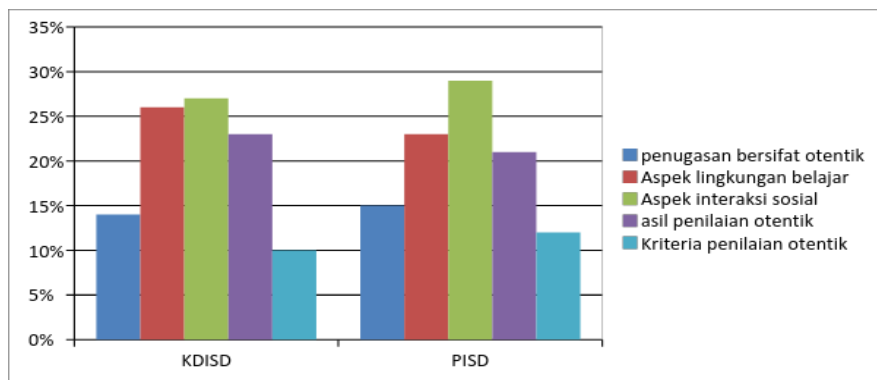




**Graph Achievement Indicators Assessment authentic By Activity Discussion of Student**

**Table of summary Percentage Achievement Indicators Assessment Authentic Through Activities Presentation Student**

No	Indicator Rate authentic	Percentage of Achievement (Course)	
		KDISD	PISD
1	Assignment is authentic	14 %	15%
2	Environmental Aspects of Learning	26%	23%
3	aspect Social Interaction	27%	29%
4	Assessment Authentic	23%	21%
5	Assessment Criteria Authentic	10%	12%

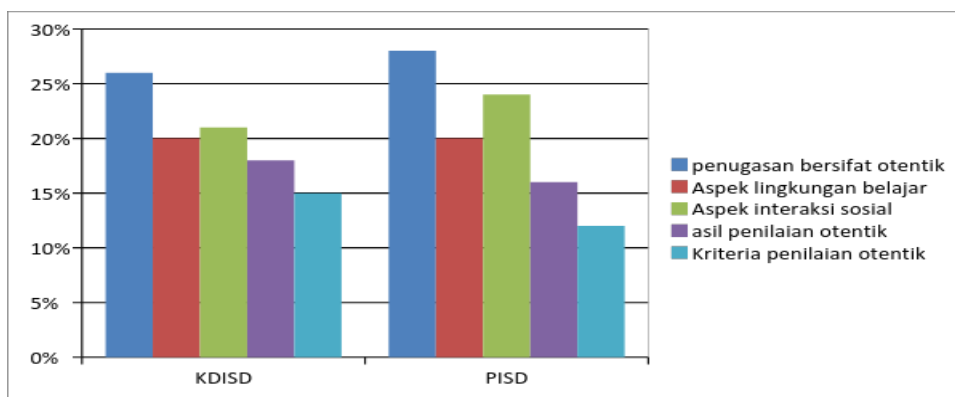


**Graph Achievement Indicators Assessment Authentic Through Activities Presentation Students**



**Table of summary Percentage Achievement Indicators Assessment Through Authentic Student Assignment Activity**

No.	Indicator Evaluation Authentic	Percentage of Achievement (Course)	
		KDISD	PISD
1	Assignment is authentic	26%	28%
2	Environmental Aspects of Learning	20%	20%
3	Aspect Social Interaction	21%	24%
4	Assessment Authentic	18%	16%
5	Assessment Criteria Authentic	15%	12%



**Graph Achievement Indicators Assessment Authentic Through Activities Assignment of Students**

Based on the calculation of the percentage of achievement of the implementation of authentic assessment to the activity discussions, presentations, and assignments as in the above table, the indicators which gets the highest percentage for each course is an aspect of social interaction, except on the activity assignment highest achievements are Reviewed assignment indicator is authentic. Whereas the lowest was musty authentic assessment criteria. This shows that the IPA has woken

lectures good social interaction based authentic assessment indicators, but there are still some aspects that can be improved. As in the indicator, first the assignment that is authentic. Given assignment should be a task that has a complex indicator or task that requires students develop high rate capability (high order thinking). This is in line with the opinions Savery and Duffy (1995) which says that involve students in completing the task contextual help them develop problem solving skills. Based on



these results, the assignment given have not been able to integrate the cognitive, affective, and psychomotor, and have not been able to see, assess and compare the ability of the start of each student. Assignments given in the learning process also has not been able to provide a deep meaning for the students, this is because a given task is a task that is common or routine they can.

Second, aspects of the learning environment. Brown (1989) says that the environmental aspects which are built into the learning process should be consider cognitive, affective, and psychomotor learners. Based on the research, aspects of learning environment that is necessary to be improved is the aspect create an atmosphere, content, learning environment in accordance with the problems in our daily lives as prospective elementary school teachers and the provision of sufficient time to see the activities of the students during the lecture. As noted Wiggins (1989) that one of the important factors to look at the success of authentic assessment on the environmental aspects of learning are giving the time good enough for students or for teachers to see the activities of learners who wakes up in the learning process.

Third, social interaction aspect. Social Interaction in lectures IPA already unfolded pretty well, as for aspects were deemed still need to be improved is the lecturer should be able to design a college atmosphere that is not only thick with collaborative learning environment.

but it can also provide a space for students to compete. Collaborative learning environment will be very beneficial to students when later confronted with situations that do require them to work (Slavin, 1989). While the mental atmosphere of the competition will train students to be ready to compete in a positive future.

Fourth, authentic assessment results. Results of authentic assessment is a product or performance of learners that are relevant to everyday life or in connection with their profession later (Wiggins, 1989). As for the things that need attention for improved on this indicator is how professors make an assessment instruments and rubrics that include or relate to various indicators of learning(multiple indicators of learning).

Fifth, authentic assessment criteria. On this indicator, there are several aspects that have not achieved optimally, including the assessment does not yet include affective, cognitive and psychomotor. Assessment conducted on the lecture has not done openly, using a rubric and assessment of student portfolios. Based on these descriptions, indicates that the application of authentic assessment in science subjects in Prodi PGSD still not optimal. One indicator that is also important to note is how to design a learning instrument or authentic assessment and contextual to make learners or students are able to develop competencies relevant to their future profession is a teacher. Application of the lectures authentic assessment should also be a challenge for the



lecturers to improve pedagogical competencies and deliver lectures better (Darling & Snyder, 2000).

Interviews were conducted against the lecturer of the IPA course on PGSD Prodi. Lecturers who were interviewed amounted to 7 people that administer courses basic concepts of elementary science, elementary science teaching, the basic concept of the earth's space SD, and the basic concepts of physical chemistry in elementary school. Based on the results of questionnaires lecturer recapitulation of the lectures show that the majority of lecturers are already implementing aspects contained in the questionnaire. These aspects have become a routine to be performed by each lecturer based RPS drawn up before the course is conducted by targeting CPL (soft skills skill and hard and other competencies) for each discussion / meeting. The assessment process has also been implementing aspects of authentic assessment, although still not optimal and can still be improved. These aspects can help improve the quality of learning in each subject, so it needs to be properly designed in order to accelerate student learning and the learning process meaningful. As said Mueller (2005) which says that the authentic assessment applied to learners will be able to deliver learning that is meaningful to them, it is because authentic assessment is a form of a task that requires the learner

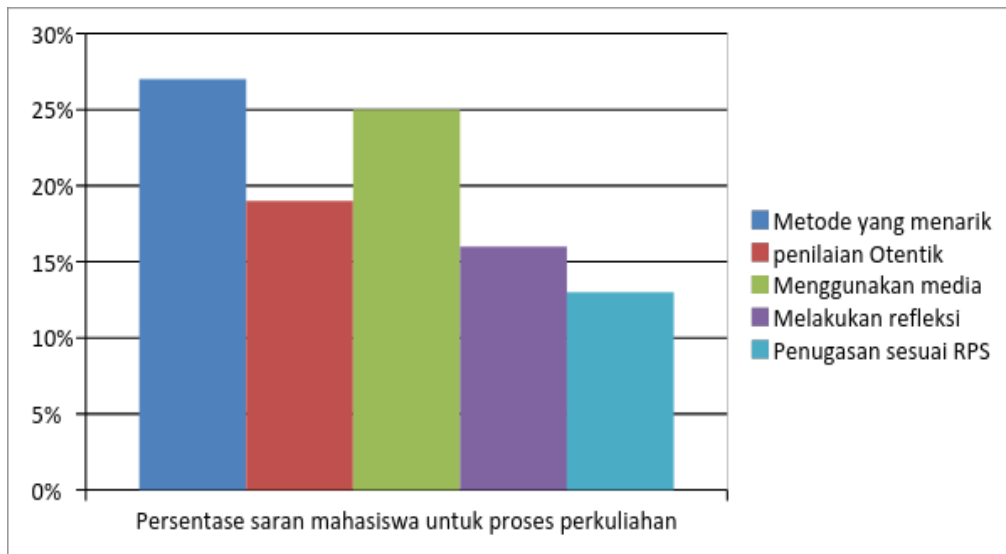
to perform in the real world significantly which is the application of the essence knowledge and skills.

The student response to authentic assessment carried out on the lecture IPA showed a positive response, this conclusion is derived from the results of questionnaires and interviews. Authentic assessment conducted by a lecturer can make students more motivated and make the lecture more meaningful for them. This is similar to statement of Hart (1994), said that through the implementation of authentic assessment in the lecture provides an opportunity for students to perform authentic tasks that interesting, useful, and relevant to students' lives. This task can make students innovative and creative because it has the opportunity to develop themselves, foster a more positive attitude. While the research results Wijayanti (2014) found that authentic assessment and scientific approaches developed to improve scientific thinking skills effectively. Every aspect of scientific thinking skills of students has increased.

The recap of the results of student writing to submit suggestions related to the lecture and assessments undertaken are:

1. Use attractive
2. Ratings authentic
3. Using instructional media
4. Reflect
5. Assignment according to RPS





**Graphic Suggestion**  
**By Scanning Questionnaire Perception Student**  
**Study Program PGSD FKIP Unpas**

#### IV. CONCLUSIONS AND RECOMMEN-DATIONS

Based A review and analysis of data, it can be concluded that, overall, the process of authentic assessment in science lecture at PGSD Prodi has been implemented but is still not optimal and still there are several aspects that need to be improved. The results of interviews conducted with lecturers at the department of science subjects are mostly lecturers PGSD already implementing aspects required in the lecture. While the views or students' perceptions of authentic assessment applied by the lecturers get a positive response.

From the results that have been obtained by researchers, it is recommended that the study program can recommend professors to use

authentic assessment as an alternative in evaluating student learning outcomes. As well as further research to formulate a module or a guide for lecturers to implement authentic assessment on the course.

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# APPRECIATE AND EXPRESS FICTIONAL PROSE LITERATURE WORKS AS MEANS OF NATION CHARACTER FORMATION

Titin Nurhayatin

Study Program of Indonesian Education FKIP Pasundan University  
titin\_nurhayatin@unpas.ac.id

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**Abstract.** Appreciate and express the literary works are essentially reading and writing the repertoire of human life with all life and life within. By reading literary works especially fiction prose, one will get a picture of the various human characters through the behavior and events it describes. Likewise, by writing literature especially fiction prose, someone will be able to describe the character and character of the figures through the behavior and events he told. Therefore, through the activities of appreciation and expression of literary works, especially the fiction prose, one can learn to respect human beings with all the values of humanity. Fictional prose as one form of literary works is a cultural asset of the Indonesian that needs to be preserved, developed, and exploited to the nation's character development. Literary readers and writers are usually very sensitive to the social, humanitarian, and natural affairs of this universe. Therefore, the ability to appreciate and express literary works, especially fiction prose must continue to be fostered and developed in order to build the character of the nation. Based on Curriculum 2013, there are five developed characters, namely: religious, nationalism, mutual cooperation, independence, and integrity. These five characters can be formed in the students through the activities of appreciation and expression of fiction prose literary works. So, a teacher, should be able to choose literary material in the form of fictiona prose that can develop those five characters.

**Keywords:** Appreciate, express, literary works, fiction prose, builder, character

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## I. INTRODUCTION

Literature becomes an inseparable part of human life. Literary works is a mean to express feelings, thoughts to audiences. Dhakidae quoted by Sayuti (2001, p. 3) that sociologically, literary works is a social stock of knowledge, a place where a knowledge of society is gathered, and human constantly draw

it. Based on this opinion, literary works has a high social relevance. Literary works can provide an overview of the psychological aspects of human, moral, and social.

On the other hand, Sayuti (2001, p.99) cites Kayam's suggestion that literature makes a model close to life. Literary works as a place of human values in various dimensions.



Through the literature of a nation's institutions can be forwarded regeneratively. That is why literature can be considered as a source of value.

The value of a work is determined by the 'content' presented by its author. The contents provide something in the form of thoughts, ideas, feelings, and conscience (Sumardjo, 1995, p.89). In addition, Sumardjo stated that literary works not only can refine the mind and mature man, but also is able to arouse sense and thought. Thinking experience is what human needs in becoming a whole human being.

Literary learning is essentially fostering and developing a culture to create a society capable to think independently and to express it well. Therefore, literature is very close to human character building. Furthermore, Sayuti (2001, p.6) explains that the urgency of literature as a source of moral value can sharpen the social and religious consciousness of the reader. Through literary works that are read, an author usually has an attitude toward the reality of the object told, both objective and subjective.

Based on the close relationship between the literary works and the formation of human character, the author is interested in conducting an assessment of two literary activities of appreciation and expression of literary works prose

fiction associated with the formation of national character.

Issues raised: 1) Is there any relation between the activities of appreciation of prose fiction literary works and the character formation of the nation? 2) Is there any relation between the activities of expression of prose fiction literature and the character formation of the nation? Based on these problems, it is hoped that the results of this study can obtain a close connection between the activities of appreciation and expression of fiction prose literary works on the character formation of the nation. Thus, the results of this study provide benefits for the character formation of the nation, especially through literary learning at schools.

To appreciate and express the literary work of fiction prose, the reader must master the concepts of literary works, fiction prose, type and elements of the builder. According to Mustafa (2008: 25), literary works is divided into four: fiction prose, poetry, drama, and nonfiction prose. The fiction prose, poetry, and drama are often called imaginative literary works. This type of literary work of fiction prose is also called narrative fiction. Fiction prose or narrative fiction include: myths, saga, parables, romance, novels, and short stories. Nonfiction prose includes news, articles, essays, editorials, textbooks, historical works and biographies that



explain facts supplemented by judgments and opinions. The purpose of nonfiction prose is to convey factual truths and factual conclusions.

Furthermore Mustafa (2008: 25) explains that fiction works is often equated with the story of prose based on the imagination of the author. The essence of fiction is a narrative or sequence of events or events that are interwoven into a story. Fiction works typically based on one or more characters and develops and changes, because of their ability to make decisions, awareness, or knowledge, attitudes and their sensitivity to others, and their moral capacity as a result of how they relate to other characters and solve problems.

Fiction prose can be interpreted as a narrative work that tells something that is fictitious, not really happening in the real world. The figures, events and settings are imaginary. This is different from nonfiction works. In nonfiction characters, events, and backgrounds are factual or exist in the real world (empirically).

Fiction is a literary term, which means 'not happen'. Fiction prose means writings that are imaginative and subjective. The writing is usually found in literature, such as: short stories, novels, and saga are examples of fictional prose. The main difference between fiction and nonfiction lies in purpose. The

intention and purpose of nonfiction are to recreate everything that actually happened, such as: history, biography, and travel stories.

The strategy used to read fictional prose, for example, will be different from the strategy used to read nonfiction prose. The strategy to read a fiction work can even differ depending on the type of fiction work. Every literary works in the form of fictional prose has different characteristics, both caused by the difference of author's ideology and literary elements such as storyline, characterization, theme, storytelling technique, background, and other literary means.

In the fiction prose, the character becomes the central character that is depicted through his speech, behavior, and ideas. Therefore, the character is very close to the formation of character.

## **II. METHOD**

The research method used in this research is descriptive method. The technique of collecting data using literature study.

The author collects data by searching for information from written sources including books, journals, magazines, and other references. The author conducts an assessment of reference sources related to fiction prose literary works, appreciation activities, expression



activities, and character development of the nation.

Based on data collected through literature study, the authors conducted an assessment of the relationship between the activities of appreciation and expression of fiction prose literature and the formation of national character.

### **III. RESULT**

Related to problems proposed, the authors examine the link between the activities of appreciation and expression of fiction prose literary and the formation of national character. The formation of the character is very close to the depiction of the characters in a literary work of prose fiction. A character is a fictitious individual who experiences events or treatment in various events in a story. Stories and events will be interesting because the characters are moving. Characters are presented through the motion and behavior that the author displayed. For that, the placement of the character of the story must be in accordance with the character of the story seen from its role

Character of a character is the character, nature, and characteristics contained in the character. It will appear in the quality of reason and soul, so that there is difference between one character with another. To recognize the character of a character in a story, Saini and

Sumardjo (1994, pp. 64-65) put forward several avenues that help the reader to discover his character's character as follows: 1) through what he does, his actions, especially how he behaves in critical situations; 2) through his utterances; 3) through his thoughts; and 4) through direct explanation.

Conversations that occur between characters will make the story alive and guide the reader to appreciate the story presented. The fictional story is an imaginative world created by the author.

To appreciate and express the work of fiction prose well, it requires knowledge and deep understanding of the elements of its development, built by intrinsic and extrinsic elements. The intrinsic elements are the elements present in the text and directly construct the text, in this case the prose's work. The intrinsic elements of fiction prose work as follows.

#### **A. Figure and Casting**

In examining these elements there are several terms that must be understood, namely the term of figure, character, and casting. The figure is the storyteller. This figure is not always a human being, depending on who is told in the story. Character is the personality and attitude of the figures. Casting is the way the author shows the figures and characters in the story. There are several ways the



author illustrates the characterization of a story, among others: through the physical description, dialogue, thoughts and figure's feelings. Other figures' reaction, and narratives. The author may describe the figures' character through their physical representation, such as his face, his body shape, the way he dresses, and the way he walks. Other than that, the author can describe it through the conversation of the figure with another. Language, speech content, and other things the figures said shows their character. The author may also convey the character through the description of his figures' thoughts and feelings. In fiction work, often found a description of what his figure thinks and feels. Similarly, through the reaction of other figures. In this technique the author describes the figures' character through the things or reactions that other figures are saying to others. The author may also convey the character of his figures directly. This is called the narrative technique.

#### **B. Plot and Plotting**

So far there is often a misunderstanding in defining plot. Plot is considered as storyline. The definition is not exactly right. The storyline is event after event that followed after. Moreover plot is a series of related events due to causality. Plotting is a text sequence. By analyzing the sequence of this

text, the reader will know how the author presents the story.

#### **C. Setting**

Setting is the place, time relation, and social environment in which the events are told. The setting in the story can be classified into: 1) place setting, which is the location where the event of the story take palce, it can be name of city, street, building, house, and others; 2) time setting, related to the occurrence of the story event, whether in the form of date of historical events, night situation, morning, afternoon, afternoon, and others; and 3) social setting, ie circumstances in the form of customs, culture, values / norms, and so on that exist in place of story events. In a story, the three types of background are interrelated.

#### **D. Language Style (Stile)**

Language is a means to convey the events presented. The language is processed as much as possible by the author by maximizing the style of language as well. The style of language is the way an author expressing the language to achieve the aesthetic effect and the power of expression. To achieve this the author empowers the elements of diction (selection of words), imagery (the description of something that the reader can sense), majas, and rhetorical style.

The author chooses a word (diction). Words are so chosen to express and the expression produce.



The author also uses words that can clarify what the author expressed so that the things described can be understood through our senses. Through those words, the reader can understand what is described as is it can be seen (vision imagery) heard (auditory imagery), smelt (smelling imagery), perceived (tactile imagery), palpable (palpability imagery), tasted (tasting imagery). Language styles are also used by authors to choose linguistic expressions that are perceived to represent something to be revealed and the expected effect.

#### **E. Narration**

The narration, or often referred to as point of view, is seen from the angle to which the author (narrator) tells the story, divided into 2, namely the internal and the external narrator.

The internal narrator is narration that is present in the text as a figure. He uses I as pronoun. The external narrator is vice versa, it is not present in the text (outside the text) and names figures with third person pronouns or names.

#### **F. Themes**

This theme will be known after all the elements of fictional prose were studied. Theme is an idea / notion the author convey in his story. When appreciating the work of fictional prose, an appreciator certainly does not simply analyze and break it per section. Each of these elements must be seen with the other elements. In order to appreciate and

express the fictional prose well, reader and creator must master and understand about the elements of fictional prose both intrinsic and extrinsic elements.

The extrinsic element is an element that is outside the text, but directly or indirectly influences the creation of the work. The elements include: author biography, social situation and condition, and history. These elements influence the reader's understanding because basically the author creates literary works based on his experience. A reader's knowledge of extrinsic elements will help him understand the work of the fictional prose.

Along with the character of the nation, Curriculum 2013 develops PPK (Character Education Reinforcement) which emphasizes on the five characters: religious, nationalism, integrity, mutual cooperation, and independence. Appreciated literary works must be chosen in which includes the depiction of a figure that features religious character, nationalism, integrity, mutual cooperation, and independence. Similarly, in the development of expressing ability through the activities of writing and reading of fictional prose of literary works that should be able to produce works that read the literary works full of religious character, nationalism, integrity, mutual cooperation and independence.





Referring to clause 3 of the Sisdiknas Law which states, "National education is to develop and form the character and dignified nation in order to educate the life of the nation, aims to develop potential learners in order to become a man who has faith to God The Almighty, noble, healthy, knowledgeable, capable, creative, independent, and become a democratic and responsible citizen ". The formulation of this national education objective is a formulation of quality Indonesian that must be achieved by every level of education. Thus, this should be the basis in the development of cultural education and character of the nation.

Character is the personality of a person who is close to the character, nature, morals formed from the internalization of various activities that are believed and used as the basis for viewing, thinking, demeanoring, and acting. The implant and reinforcement of the character refer to characters that show a number of values, morals, and norms, such as honest, courageous, trustworthy, and respectful to others. Humans live in different social and cultural environments. Therefore, the development of one's character can only be done in the social and cultural environment concerned. That is, planting and reinforcing one's character can only be done in an educational process that does not release it from the social, society, and

nation cultural environment. In practice, learners should be actively involved in developing their own potential, internalizing processes, and appreciating the values that guide the life of the community, and developing the life of a dignified nation.

In the book of *Kebijakan Nasional Pembangunan Karakter Bangsa 2010-2025* (Government of RI, 2013: 7) stated that.

"Character is unique values (know goodness, good deeds, good life, good impact on the environment) that is self-embodied and embodied in behavior. Coherent characters radiate from the results of mind, heart, sports, and taste and strength of someone or a group of people. Character is a characteristic of a person or group of people containing values, abilities, moral capacity, and tough in facing difficulties and challenges.

Based on the understanding, Indonesian language lectures must be able to create students personality so through their mind, heart, taste and strength that well behaves and good impact on the environment. Those can not be separated from students' ability in communicating good Indonesian language. Therefore, through selected material, media used, and the interaction of the lectures conducted, it is expected to create the character of the nation.



#### IV. DISCUSSION

By appreciating and express literary, one will gain knowledge and insight, awareness, sensitivity, social, and religious will be directed, and there will be appreciation and pride upon Indonesian literature as cultural and intellectual repertoire of Indonesian people.

The work of fictional prose is indeed a fictitious, imaginary story. This work is the result of the author's imagination. Imagination is very useful in life, including the imagination in fictitious story (fictional work). Fictitious story, because they contain imagination, can enrich the imagination of its readers.

This imagination wealth will help human more intelligent and creative in living life. Moreover, it has become human instinct / need to like stories. In some traditional societies, there are stories of myths, legends, and others. A person can survive for hours (even all night) to watch a puppet show. Then why, can anyone bear reading novels all day while reading science books quickly feel saturated?

It happens because people get entertainment from fictitious story / fictional prose. However, the benefits of it are more than that. Prose stories are not only entertaining, but also rewarding. Prose stories not only serve as a means of entertainment.

The prose story is our means to reflect on life.

In fiction prose presented the author's imagination. The imagination is the result of the author's preparation of what he feels from reality. In the prose work, the author actually presenting the results of his observations and experiences to the reader. The experience he presents is an experience that has gone through a process of reflection and a deeper understanding. Thus, when the reader reads his prose, he gets a new view of life that enriches his life message he knows every day. In this regard, the work of prose actually helps the reader to better understand life and enrich the views of life.

Indeed, things like this can also be obtained from other fields, such as philosophy. However, the work of fictional prose presents in the form of stories, through the depiction of events, the depiction of figures with various characters, the image of life will be more alive and more touching.

In addition, we cannot experience all things in this life alone. What we do not and can not experience can be obtained through prose. Through fictional prose, we will get view more lively and more touching because prose presents it on all sides. The work of fictional prose actually enriches the insight and knowledge of its readers.



Media disclosure of fictional prose works is the language. In presenting his work, the author seeks to present it in a language that can touch the reader's soul. To accomplish that, the authors attempt to process the language with its best and so deeply that what it conveys can touch in the hearts of the reader.

They search for the right vocabulary that can represent what they want, create new phrases, vary sentence structure, give life-depictions with language, and so on. By reading works that already contain the language, the reader is enriched with the language.

Of course there are still many benefits of reading (appreciating) the work of fictional prose. The intensity with which we read, will in turn sharpen our sensitivity; social sensitivity, religious sensitivity, and cultural sensitivity.

Appreciation of literature is an activity to acquire literary works to gain understanding, appreciation, and enjoyment of work to obtain a wealth of insight and knowledge, sensitivity of thought, and a sense of the various aspects of life. From these activities eventually also arise a love and appreciation of literary works. Similarly, the appreciation of the work of prose fiction.

The purpose of fictional prose appreciation above will be obtained

by the reader if he does these steps: a) reading the work of fictional prose until he can feel the involvement of the soul with what is conveyed and told; b) assess and see the relationship between the idea of experience the author wishes to convey with the technical capability of the prohibition to process elements of prose, such as figures (casting), plot, setting, language style, narration and theme; and c) find the relevance of the work with personal experience and life in general.

Appreciate the literature, in this case fictional prose works, can be done in various ways, namely 1) listening / watching the dramatization of the story / novel folklore, or other forms such as monologue, conducted directly or via electronic media; 2) listening to fairy tales, either directly, or through recording; and 3) reading short stories / novels / folklore directly from text. From these ways, the appreciator then gives a response (the result of appreciation) which includes the steps of appreciation, either orally, or written.

Moreover, for the reader / appreciator's involvement and understanding with the work deeper, the appreciator can express the work, for example by reading a story / novel / tale, dramatization, monologue, dramatic reading, storytelling, re-writing short stories / novels / tales



read with his own writing, making short stories / novels / tales, adapting short stories / novels / tales into drama script, poetry, and others.

Forms of appreciation activities can be done through activities such as: 1) listening / paying attention to reading stories / fairy tales; 2) reading text / books containing short stories / novels / tales; 3) reading short stories / short stories; 4) rewriting the story / novel / tale with his own words; and 5) write short stories. Short story reading is an activity to read a short story to the audience. The reading is no other than to communicate the contents of the works to the audience so that the audience can listen, understand, and enjoy the work. In order to achieve that goal, the short story reader must first be able to understand and appreciate the work. Understanding and appreciation is then expressed through the means of vocal, gestures, and mimic. For the reading to succeed, the reader of the work must optimize all means of expression. In expressing the work through his vocals, he should pay attention to the clarity of articulation, sound power, voice character, intonation, tone, and tempo. Gestures and mimics should also be noted: whether gestures and mimics can represent every element of the short story, and the extent of its accuracy.

Usually, in a short story reading, a reader carries a short story text. Thus, the space motion is not as free as in drama. Expression is more emphasized on vowels, gestures and mimics. Short story reading can be done by a person, or by some people. If assisted by some people, then we set each person the role, there is a narrator, the figure, according to the short story needs. However, the roles are kept within the context of the reading, not to be confused with drama.

In the context of reading short stories, short stories can be delivered in the form of monologues. In the monologue, readers of the short story has more the freedom. He does not carry text. As the name implies, monologue, this show is played by one person, but plays for various roles. It would be more interesting if in this activity also added other elements, such as make-up, costumes, stage property, and music.

Appreciation of a short story will be sharper and appreciated if the appreciator has experience in writing the type of work. By writing short story, he can feel how easy or difficult to process elements of the story builder, start from the figure, setting, plot, language, and so forth. With this experience, he will be able to more sharply assess the technical



ability of the author in processing the elements of the short story.

The activity of expression in the field of fictional prose is usually done by writing stories. The author is in charge of making imaginative figures so his work come alive. Moreover, the authors must assure that the characters are real. For that purpose, writers should be able to describe and tell how the feelings and thoughts of the figures in facing and living their lives.

To achieve optimal results, before writing a mature concept needs to be made: plot, casting, setting, conflict, anti-conflict and ending and the selection of words that will be used to make sentences.

Through appreciation activities, one can appreciate various characters and human behavior with all forms of behavior so that readers or listeners can reflect about the human character. Similarly, through the activities of writing fictional prose, one can convey thoughts, feelings, and appreciation about life and human life, and describes the various behavior and human behavior as a picture of human characters that occur in his life.

## V. CONCLUSION

Based on the activities of appreciation and expression of literary works in the form of fictional

prose, one can get the description of various characters at the same time can describe various behavior and human character.

Reading as an active process of meaning and construct meaning in the text it reads requires readers to actively develop their potential in reading. On the other hand, the story as part of the creative process of literary works, has a creative dimension in its creation and appreciation.

Psychologically, human has a tendency to love reality and fiction. We live in both. Literature provides an unlimited opportunity to connect language and experience. Literary works can also enrich the lives of its readers through the enlightenment of personal experiences and problems and through literature reader learns how others respond to them. Literary works are the wealth of various local wisdom that should be passed down from generation to generation through various activities.

The habit of reading and writing works of literature can improve the narrative intelligence, namely the ability to interpret critically and the ability to produce narration. Literature offers a variety of story structures, themes, and writing styles from the authors. With appreciation and expression of fictional prose literary works is



expected to form the character of a nation that can support high values of humanity on earth.

Based on the results of the study conducted can be concluded that the activities of appreciating and expressing fictional prose literature works has a close relationship with the formation of national character.

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# THE APPLICATION OF THE MAPLE PROGRAM TO SELF-REGULATED LEARNING ON THE MATHEMATICS' PROSPECTIVE TEACHERS STUDENTS

Jusep Saputra

Mathematics Education Study Program, Pasundan University  
jusepsaputrapmat@unpas.ac.id

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**Abstract.** Self-regulated learning can be achieved if in the process of learning mathematics provides an open opportunity for students to learn independently. This research is a mixed method type embedded design, which aims to conduct studies that focus on the use of maple program on self-regulated learning. The sample selection was done from the population by purposive sampling, then taken 2 classes that contracted the Calculus. The instrument used in this study is a questionnaire of learning self-regulated learning with a Likert scale, interviews, and observation sheet. Based on the data analysis, it can be concluded that (1) The self-regulated learning of superior student and low who received the maple program is better than of superior students and low students who received expository learning, (2) Student activity in following by maple program the average rises from fewer criteria to good, and students explain that the use of maple program is more interesting and better when compared with expository learning.

**Keyword:** maple program, self-regulated learning

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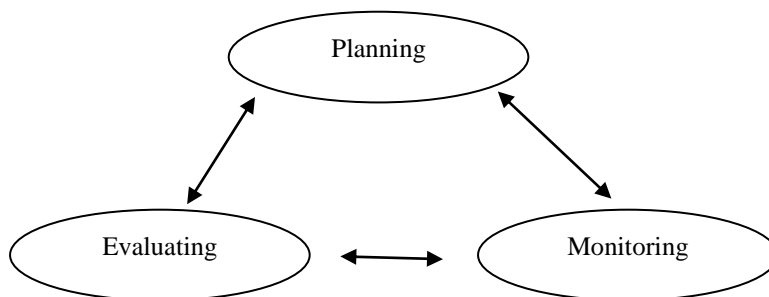
## I. INTRODUCTION

Self-Regulated Learning (SRL) or known as Self-reliance learning, includes person ability to choose a cognitive strategy, learn techniques of studying and learn at the whole of his lifetime so they can set themselves when learning. Hargis (Sumarmo, 2011) defines "Self-reliance learning is a precise design process and self-monitoring of cognitive and affective in completing academic task". Findings from Darr and Fisher (2004), and Pintrich &

Groot (1990) (Izzati, 2012: 13), shows that "Learning independence is strongly correlated with the learner's success".

Self-reliance learning is one of the factors that improve learner's academic achievement. Wang et al. (Abdullah and Iannone, 2010: 3) indicate that "Engaging in high achievement is an activity of learning independence, such as goal setting, planning, monitoring, readjusting of strategies used, evaluation and reflection".





**Picture 1.** Learning Independence Cycle

Knain & Turmo (Gumiarti, 2014: 25) defines, "Self-reliance learning as a dynamic process, that is, students build knowledge, skills, and attitudes when studying specific contexts. According to Schunk and Zimmerman (Supianti, 2013: 18), "There are three stages of Self-reliance learning cycle; learning plan, monitoring progress when implementing a plan, and evaluating outcomes".

We often encounter complexity and long computations in searching conventional mathematical solutions in calculus that bear upon no time to analyzing, discussing, or interpret the solutions obtained, therefore it is appropriate that we need tools like computers. But in fact we also need to realized that in general we're mostly facing a problem with computer programming language. This Maple application program is able to perform mathematical computation easily and quickly without requiring mastering a certain computer programming language, hence people who do not master computer programming

language still will be able to use this Maple program.

The Maple program helps someone searching mathematical solutions for researchers, mathematicians, faculty and learners easily and quickly without having to get stuck in the difficulty or complexity of mathematical computing. or even the difficulty and complexity of the computer. This suits Wangler's opinion (2012: 266), "Maple is a powerfull software program that can be used to help student learn math. .... In this article I will ilustrate the kind of things an instructor can do with maple to help the students learn math by seeing math".

Some computer applications which one of it is Maple, having the ability to change the order of representation. Representations like tables, pictures, graphics and symbols allowing researchers to present a broader mathematical knowledge to their students. This dynamic relationship will help students to connect different aspects of mathematics, hence students can



construct wider knowledge of mathematics.

Maple is one of the offline e-learning computer programs which can overcome the technical problems of learning (learning media), as well as an effort to answer the substantial problem of learning (teaching resources). In the process of learning, it is possible for students to develop them self and be able to learn independently without any limitations of distance and time. It also can grow self-reliance after learning many times through maple program, both cognitive and affective competence and the growth of creativity of education stakeholders.

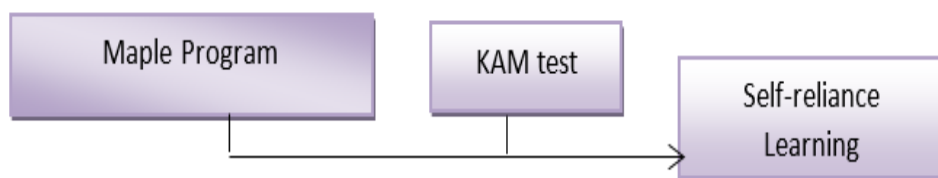
The results of the study by Shen, Lee, and Tsai (2007) are taken from a journal entitled "Applying Web-Enabled Problem-Based Learning and Self-Regulated Learning to Enhance Computing Skills of Taiwan's Vocational Students: a Quasi-Experimental Study of a Short- Term Module". In his research SRL is a learning that can contribute further to students through e-learning.

Other research results from Saputra (2015) revealed that the increase of mathematical problem

solving ability of high-ranked students who obtained e-learning is better than the mathematical problem solving skills of high-ranked students who obtained expository learning. Therefore Maple pogram is a good computer program which can assist students self-reliance learning. Based on the background that have been described previously, the authors are interested to know the extended use of maple in the process of lectures, especially on developing students Self-reliance learning based on the ability of early mathematics ability (KAM).

Based on the background that has been described previously, the purpose of this study is to analyze the students self-reliance ability who obtained e-learning with the students self-reliance ability who obtained expository learning from the students KAM (high-ranked and low-ranked), and review the lecturers and students activities which uses Maple program.

Basically e-learning is assumed to have an impact on student self-reliance based on KAM. KAM has a role in controlling when learning process is given. The link between the learning components can be described as follows:



**Picture 2.** Research Flowchart



Annotation:

Independent Variable : Maple Program

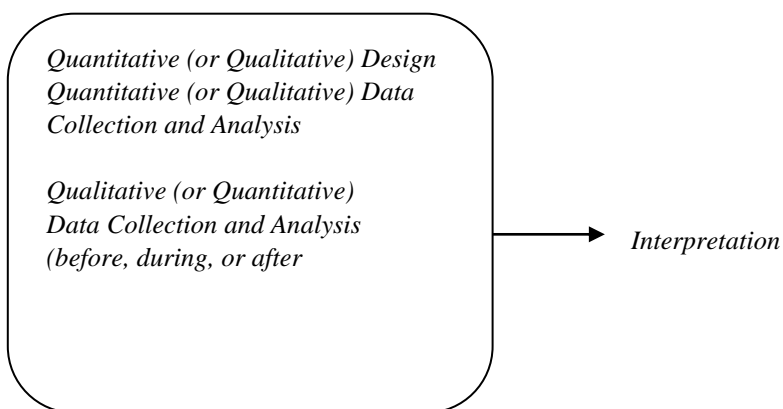
Dependent Variable : Student's Self-reliance

Control Variable : Early Mathematical Ability (KAM).

## II. METHODOLOGY

The research method that will be used in this research is Mixed Method Embedded type Design with

Embedded type experimental model. Here is Embedded design design according to Creswell and Clark (2007):



**Picture 3.** Research Procedure of Embedded Experimental Model

The sample selection is done from the population by purposive sampling. The sample of the research is students who take Calculus I courses. The students divided in 2 class, one as the experimental class (then called A class) inhabited by 29 people, consist of 14 high-ranked students and 15 low-ranked students. The other class as the control class (then called B class) inhabited 31 students, consist of 17 high-ranked students and 14 low-ranked students.

The data available in this study were collected from the instruments already given on the subject of the study. The instrument used is non test. Non-tests were

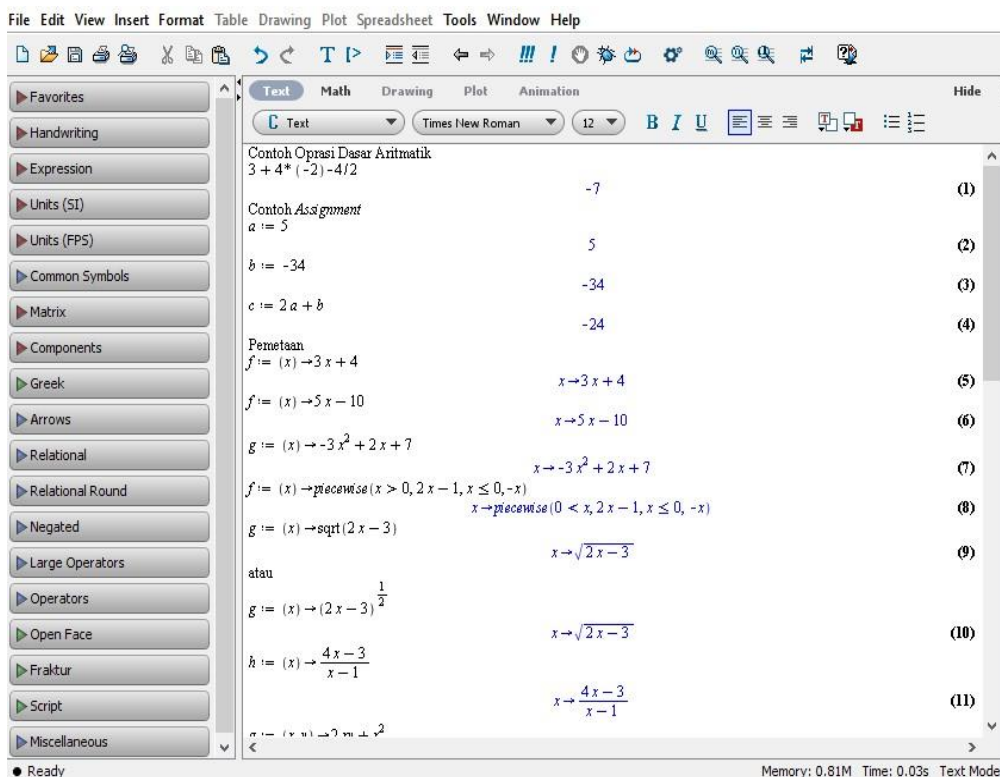
conducted in the form of self-study enquette questionnaires, observations, and interviews. The goal is to observe directly the activity of learning process of mathematics with maple program, to know student response, and student learning independence.

Students self-reliance in mathematics contains 9 components; 1) Initiative and motivation of intrinsic learning, 2) The habit of diagnosing learning needs, 3) Establishing learning objectives or targets, 4) Monitoring, organizing, and controlling learning, 5) challenges, 6) Harnessing and searching for relevant sources, 7) Selecting, applying learning



strategies, 8) Evaluating process and learning outcomes, 9) Self efficacy or self-concept or self-ability Sumarmo (2011: 110). Experimental class given

maple teaching materials that they can do at any time. The following is one of the views of algebra by maple.



**Picture 4.** Maple Program Views

Statistical analysis used to compare mean is mann-whitney test because the data is not normal. The observations data analyzed is the activities of lecturers and students that can be developed during the learning process of mathematics. Activity data is qualitative which can be obtained by using observation sheet. From the observation sheets will be calculated average student activity in the classroom at each meeting. This series of research activities are divided into three stages: preparation

stage, implementation stage, data processing phase, data analysis phase and report writing.

### III. RESULTS

When the normality test is done, the questionnaire has normal distribution, hence next step is to compare mean between the two classes using parametric statistics with independent t test.



**Table 1.** Student self-reliance T-Test Results

Independent Samples Test										
t-test for Equality of Means										
	Levene's Test for Equality of Variances				t	df	Sig. (2-tailed)	95% Confidence Interval of the Difference		
	F	Sig.						Std. Mean Difference	Lower	Upper
Equal variances assumed	.156	.694	2.567	58		.013	3.05784	1.19108	.67363	5.44206
Equal variances not assumed			2.570	57.903		.013	3.05784	1.19000	.67571	5.43998

From Table 1 it appears that the sig (2-tailed) value is 0.013, so the value of sign (2-tailed)  $0.013 < 0.05/2$ , then  $H_0$  is rejected, and  $H_1$  is accepted. This means that there is a mean difference between student self-reliance of the experimental class and the control class. So it can be concluded that at  $\alpha = 0.05/2$ . We can also analyze from mean value of students self-reliance that obtains maple program learning is better than

students self-reliance who obtained expository learning.

To determine existence of mean difference between two groups of high-ranked and low-ranked students, calculated with two-way ANOVA. By using SPSS 17.0 namely General Linear Mode (GLM) - Univariate, results of the calculations presented in Table 2 as follows:

**Table 2.** Two-Way ANOOVA Results of Students Self-Reliance due high-ranked low-ranked and Learning Model

Multiple Comparisons							
SRL Tukey HSD							
(I)	(J)	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval		
KAM	KAM				Lower Bound	Upper Bound	
High-ranke d	Asor eksperime n	5.7238*	1.12701	.000	2.7396	8.7080	





eksperimen	High-ranked kontrol	2.4454	1.09453	.127	-4528	5.3436
	Low-ranked kontrol	10.3571*	1.14627	.000	7.3219	13.3923
Low-ranked eksperimen	High-ranked kontrol	-5.7238*	1.12701	.000	-8.7080	-2.7396
	High-ranked kontrol	-3.2784*	1.07434	.018	-6.1232	-.4337
	Low-ranked kontrol	4.6333*	1.12701	.001	1.6491	7.6175
High-ranked kontrol	High-ranked eksperimen	-2.4454	1.09453	.127	-5.3436	.4528
	Low-ranked eksperimen	3.2784*	1.07434	.018	.4337	6.1232
	Low-ranked kontrol	7.9118*	1.09453	.000	5.0136	10.8100
Low-ranked kontrol	High-ranked eksperimen	-10.3571*	1.14627	.000	-13.3923	-7.3219
	Low-ranked eksperimen	-4.6333*	1.12701	.001	-7.6175	-1.6491
	High-ranked kontrol	-7.9118*	1.09453	.000	-10.8100	-5.0136



*First row (High-ranked Experiment Class – Low-ranked Experiment Class)*

The value of sig = 0.000 is less than 0.05. Means Ho rejected and H1 accepted, then there is a significant difference between mean value of student self-reliance of high-ranked experiment class and low-ranked experiment class.

*Second row (High-ranked Experiment Class – High-ranked Control Class)*

The value of sig = 0.127 is more than 0.05. Means Ho accepted and H1 rejected, so there is no significant difference between mean value of student self-reliance of high-ranked experiment class and high-ranked control class.

*Third row (High-ranked Experiment Class - Low-ranked Control Class)*

The value of sig = 0.000 is less than 0.05. Hence Ho is rejected and H1 accepted, then there is a significant difference between mean value of student self-reliance of High-ranked Experiment Class and Low-ranked Control Class.

*Fifth row ((Low-ranked Experiment Class - High-ranked Control Class)*

The value of sig = 0.018 is less than 0.05. Hence Ho is rejected and H1 accepted, then there is a significant difference between mean value of student self-reliance of Low-ranked Experiment Class and High-ranked Control Class.

*Sixth row (Low-ranked Experiment Class - Low-ranked Experiment Class)*

The value of sig = 0.001 is less than 0.05. Hence Ho is rejected and H1 accepted, then there is a significant difference between the mean value of student self-reliance of Low-ranked Experiment Class and Low-ranked Experiment Class.

*The ninth row (High-ranked Control Class - Low-ranked Control Class)*

The value of sig = 0.000 is less than 0.05. Ho means rejected and H1 accepted, then there is a significant difference between mean value of student self-reliance of High-ranked Control Class - Low-ranked Control Class.

Based on the observation to the lecturers, it was found that at the first meeting the lecturer did not explain the subject requirement because the lecturer assumed that the student had known the subject requirement, unfortunately not all students knew about it. Lecturers also do not convey apperception, because the lecturer's solicitude about the time which may not enough to discuss the core of subject matters.

In the second meeting, the lecturers carry out every step of the learning activities, but the lecturer doesn't close the classroom activities with making conclusions about the material that has been taught and do not reflect or evaluate their learning result. This is due to the time that has running out, so the lecturer directly assigns a task. Basically at the first and second meetings the lecturer seems do not get used to maple program that intended to assist in the



learning, so the lecturer was not consider the time to use very well.

At the third, fourth and fifth meetings, the lecturers are in accordance with every step of the learning. This is because the lecturer has been accustomed to using maple program.

Observations were made to the experimental class at each meeting for 5 meetings. Category of observation assessment consists of 1 = Very less, 2 = Less, 3 = Enough, 4 = Good, 5 = Very good.

At the 1 to 5 meeting in the learning activity it was found that the average of student activity was 2.33 (less), 2.78 (less), 3.56 (enough), 4.00 (good), and 4.44 (both ). So the

average student activity rose in every meeting. Meanwhile, when viewed from the value of Z at the meeting 1 to 5 in the learning activities obtained that the average standard value of student activity is -1.16, -0.69, 0.14, 0.62, 1.09. From the above description, it can be concluded that student activity using maple program from the first meeting until the fifth meeting has changed towards a better attitude.

Interviews were conducted to explore problems encountered by students on good learning related to maple giving, and student self-reliance.

**Table 3.** Student's Answer Interpretation into Interview Results.

Questions	Student's Answers
What do you think about maple program?	Generally, learning with maple program is very helpful, and interesting because it feels encouraged to be more active in solving real and independent problems in learning, and the medium was very suitable because of the limited time and place.
How do you take advantage of the facilities on the maple program?	Generally we use maple facilities by studying maple's syntax, so they can evaluate the answers done manually besides using maple.
What facilities do you like and do not like about e-learning? Why?	We prefer graphics because some of us find it difficult to imagining graphic, now it can be helped by maple that can create 2 and 3 dimensional images, so we're feel helpful in understanding the transformation of the graph.



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Questions	Student's Answers
What are the advantages and disadvantages that you feel in learning by using a maple program?	Generally the advantages and kekurangannya as follows. Advantages: <ul style="list-style-type: none"><li>➤ This learning is not limited by space and time.</li><li>➤ The workmanship is very interesting.</li><li>➤ Indirectly developing IT skills.</li></ul> Disadvantages: <ul style="list-style-type: none"><li>➤ Some laptops sometimes having errors in syntax writing.</li></ul>
What is your advice on learning by using maple program?	Generally our advice is: <ul style="list-style-type: none"><li>➤ We hope this kind of lesson should be developed and applied in another courses/subjects.</li></ul>

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#### IV. DISCUSSION

The results obtained from the questionnaire on the scale of self-reliance indicate that students self-reliance using maple program is better than the students' self-reliance who gain expository learning. According to Munir (2008: 205), the results of the study stated that "In learning e-learning (maple) learners do not depend entirely on the teacher, learners learn independently in digging science through internet or other information technology media".

Based on the analysis of the results of questionnaire self-reliance can be concluded that there is a difference of self-reliance's mean between students using maple program with students using expository learning. So it can be concluded that the students self-reliance who get a maple program is better than the students self-reliance who get expository learning.

When viewed from KAM, it is found that there is a significant difference between the mean value of students self-reliance of high-ranked class using maple program and low-ranked class that use expository learning. The self-reliance of high-ranked class students who use maple program is better than the low-ranked class students who use expository learning. There is a significant difference between the mean values of students' self-reliance in using the maple program and the high-ranked class using expository learning. The self-reliance of high-ranked class students who use expository learning is better than the students of the low-ranked class who use the maple program. There is a significant difference between the mean values of students' self-reliance learning using the maple program and the low-ranked classes using expository learning. The self-reliance of the low-



ranked class students using maple program is better than the low-ranked class students who got expository learning.

The self-reliance according to Sumarmo (2010) is "The process of careful self-design and monitoring of the cognitive and affective processes in completing academic tasks, self-reliance is also an individual's awareness to think, use sustainable strategies and motivation, and evaluate learning outcomes". Viewed from the definition of self-reliance is a process that requires habituation, a strong will because it is based on the internal factors of each individual, so it is not easy to be able to change it.

There have been findings where there are negative statements, but many students in both classes who derived the PBL model with the help of e-learning and who acquired an expository learning model that chose strongly agreed, agreed and neutral when the statement read, "My feelings are anxious when faced with a difficult mathematical task". So the number of scores for these statements is the smallest of the two classes, meaning that it still needs to be done follow-up action in the future to conduct research on students' anxiety about difficult math problems.

In this case maple program has an important role in facilitating students to be able to learn independently wherever and whenever using a laptop, so students

will be more motivated because the maple has an interesting feature and easy to use.

## **V. CONCLUSION**

Based on the results from data processing and findings obtained in this study some conclusions; the self-reliance learning of high-ranked and low-ranked students who obtain a maple program is better than the self-reliance learning of high-ranked and low-ranked students who gain expository learning; The mean of student activity in using maple program rose from criteria not good enough into good, and the students explain that the maple program is more interesting and better when compared with expository learning.

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# EDUCATIONAL MANAGEMENT OF CHILDREN NATIONS OF CULTURE PANCASILA BASIC PRIMARY SCHOOL IN HIGH CLASS

Asep Deni Normansyah

PPKn FKIP Universitas Pasundan University, Bandung, Indonesia

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**Abstract.** The advanced movement of the dynamics of education of a nation is on the shoulders of its next generation, and young shoots as its successors. Nowadays world development is so fast and fast. Any information can be easily obtained. This is the so-called globalization flow, the flow of globalization is contributing greatly to the development of our young generation. If our young people are not good at sorting it out, this globalization will affect the morality and values of the nation's children. So sad indeed, when these young people in the cradle in a very decisive position on the progress of a nation. In reality not a few young people act far from what we expect. The deterioration of moral and ethical values is sad, the brawl between students almost happens in all corners of the country, promiscuity, and the decline of respect and obedience to parents and teachers. In relation to the above description, character education must be reapplied, with character education expected to form individual soul especially learners and can be directed in accordance with national development and education goals. Character education here is character education that has noble values in accordance with the values contained in the basis of our country that is Pancasila. Teachers as the spearhead, and have a very strategic position in the world of education can apply the values associated with the formation of the character of learners. Especially teachers who teach basic school education, because this is where the initial foundation should really be cultivated, and in this period very open opportunities to shape their characters.

**Keyword:** Character education, Pancasila, Management

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## I. INTRODUCTION

With the implementation of character education of cultured nation Pancasila this can give a very big contribution to the progress and robustness of a nation. Character education is a very strong pillar for the integrity of a nation. Because the nation's character and the weak values are the beginning of the collapse of a nation.

If the in-depth study of character education is very important given to learners, because it provides clear direction that character education can shape the learner's soul towards the ideal in accordance with the demands of development. The application of character education should not always be done by the teacher but can also be applied in the family by the parents and the



existence of government interference. Therefore there must be a strong correlation between teachers, parents, government and society.

#### A. Value

##### 1. Faith

Faith that brings peace, which became the ethics of inter-human relationships.

##### 2. Clean

According to the Islamic Shari'a the understanding of the net is not the same as the sacred understanding. Something clean is something that is not polluted by something that is considered dirty. Neither the filthy is holy nor the unclean / unclean. Which belongs to the net self: bath, hair in shaving neatly, nails in short pieces, dress neatly and cleanly which belongs to the clean heart, that is: away from envy, and not arrogant.

##### 3. Healthy

According to WHO (1947) healthy itself can be interpreted that a perfect state both physically, mentally and socially and not only free from disease or weakness (WHO, 1947). Indicators included in the definition of healthy, namely: segae body, his son is creative, lively.

##### 4. Discipline

Discipline is defined as compliance with rules or subject to supervision, and control. While discipline as an exercise that aims to develop themselves in order to behave in an orderly manner. The indicators are: wake up on time (according to commitment), conducting activities at home in accordance with commitments, coming to school on

time, conduct school activities in accordance with applicable regulations.

##### 5. Respecting parents:

Obedient and obedient to the advice of parents, likes to help the work of parents at home, come and go home to say hello, speaking and speaking polite words.

##### 6. Respecting others

Be polite to older people, be affectionate to others who are younger, always behave and behave humbly.

##### 6. Honest

Honestly means the suitability between being spoken to the actual state. So, if a news matches the circumstances, it is said to be truthful, but if not, then it is said to be a lie. Honesty is in speech, also in deeds, as someone who performs an act, certainly in accordance with that in his mind. The honest indicators themselves are: Do not like to lie, Speaking for what it is

#### B. Science

Natural science that brings self-reliance as a clear and systematic logic. Define science according to experts as follows: science is a general and systematic knowledge, knowledge from which it can be concluded certain postulates according to general rules. (Nazir, 1988).

Conception of science basically includes three things, namely the existence of rationality, can be generalized and can be systematized (Shapere, 1974). Understanding science includes logic, the existence of subjective interpretation and consistency with social reality



(Schulz, 1962). Science is not only a systematically gathered knowledge, but also a methodology. From the four concepts above can be concluded that science is basically knowledge, be it nature or social (life of society), which is obtained by human through thinking.

The spirit of learning and work: Never skip school (unless there is a very basic, sick interest), Have a high level of sportsmanship for school or work assignments, Energetic, Have far-sighted insights or views. b. Trying to be accompanied by mastery of Science and Technology (Science and Technology): Always ask about matters relating to science and technology, Always curious about science and technology, Always want to try things related to science and technology.

#### C. Beautiful

Beautiful that brings fair as ethics in togetherness and commitment. Good, Fun, and Beautiful.

## II. METHOD

### A. Parents

Child learning process involves the role of the parent's assistant, because the child is still in parent's responsibility. Therefore, parents need to be involved in the learning process of children.

With parent involvement in the learning process the child not only supports formal education programs but also brings emotional closeness between the parent and the child so that the child will feel supported and cared for and this will be a

psychological supplement that brings to the satisfaction of the child.

The steps that must be taken by parents are:

1. Always appreciate his opinion and do not blame.
2. Invite dialogue of logic and experience.
3. Praise the good things of her performance, help with positive sentences to perform better.
4. Do not interrupt her interlocutor and wake up her interest and help her to have a more interesting talk.
5. Provide education and guidance.
6. Participating in the intellectual life of the nation, eradicating ignorance and backwardness, fostering an independent soul.

### B. Teacher

Basic education teachers need to have the ability to monitor the progress of their students' learning as part of pedagogic competence. Teachers as pedagogic need to improve their competence through collaborative activities with colleagues, collaborating with parents, empowering resources in society, doing simple research.

The role and function and responsibilities of teachers in elementary schools in addition to teaching also need to consider the diversity of student behavioral characteristics as a basis for determining the types of assistance and services in individual and group counseling. Provide education and guidance. Participating in the intellectual life of the nation, eradicating ignorance and backwardness, fostering an independent soul.



### C. Government Officials

According to Law no. 20 of 2003 on National Education System article 1 paragraph 1 that education is a conscious and planned effort to create an atmosphere of learning and learning process so that learners actively develop their potential to have spiritual strength, self-control, personality, intelligence, noble character and skills which is needed him, society, nation and State.

Meanwhile, Education in Indonesia faces several issues related to the low quality of process and learning outcomes, as well as student behavior that tend to negativ.

The steps that must be taken by the government are: Government officials are more pedile to education. The government is more firmly upholding consistent and consequent rules of education.

## **III. DISCUSS**

### A. Teacher

In its implementation, curriculum development, especially at elementary level (SD / MI), is prepared to be adjusted for the sake of interest within the framework of the Unitary State of the Republic of Indonesia by observing the fundamental aspects such as: (a) increasing faith and piety, (b) (d) the diversity of local and environmental potentials, (e) regional and national development demands, (f) demands of the working world, (g) the development of science, technology and the arts, (h) religion, (i) the dynamics of global development, and (j) national unity and national values. Teachers are required to have a high

dedication and creativity in developing a model of learning in accordance with the subject matter so as to appeal to students. With the approach of using the language of students, students do not feel patronized and unknowingly messages about the application of the characters can be received by students well.

Then students' understanding will be more easily absorbed if the given material is associated with daily life. In general subjects, teachers should be able to link the subject matter with the character of moral values and its implementation in everyday life.

The Government through the National Agency for Education Standards requires Article 28 paragraph 1-3 of Law No. 19 of 2005 on National Education Standards (2007: 100) as professional educators, teachers must have pedagogical competence, personal competence, professional competence, and social competence.

### B. Parents

Upper elementary school children are already expected to have self learning regulation or awareness for self study. If the children in grades 1-3 SD, parents are still very involved in the learning process of children, then the children in grade 4-6 elementary school parents only be a companion. They have to know what to do. However, parents still need to cultivate the motivation to learn not to loose. The trick, remember that one of the characteristics of children this age is the use of logic that has become more profound. Parents need to



provide reasonable reasons for the importance of learning.

#### **IV. CONCLUSIONS**

Implementation of character education at elementary level of education is very important because during this period a very great opportunity for the process of character formation of children. The application of character education of the cultured nation of Pancasila can be started from faith, the faith that brings peace, which becomes the ethics in the interaction of fellow human beings. Faith here includes clean, healthy, discipline, respect for parents, others, honest. Furthermore, the science of natural science that brings self-reliance as a clear and systematic logic that includes the spirit of learning and work, trying to be accompanied by science and technology, and beautiful is beautiful bring fair as ethics in togetherness and commitment.

In the application of character education should be a strong correlation of various parties, be it family, teachers, government apparatus, society, because the future of the generation is our responsibility together. And education of the cultured nation of Pancasila is a very strong pillar for the robustness of a nation.

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# CREATIVE MATHEMATICAL REASONING IN MATHEMATICAL LITERACY REVIEW BASED ON PISA 2015 DOMAIN PROBLEM

Dahlia Fisher<sup>1</sup>  
Beni Yusepa G. P<sup>2</sup>

Faculty of Teacher Training and Education Pasundan University  
<sup>1</sup>dahliafisherpmat@unpas.ac.id <sup>2</sup>yusepa.fkip.pmat@unpas.ac.id

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**Abstract.** Mathematics learning in line with 21<sup>st</sup>-century learning objectives has 4C characteristics: (Communication, Collaboration, Critical Thinking and Problem Solving, Creativity and Innovation). Mathematical material and mathematical reasoning are two inseparable matters, mathematical material understood through reasoning and reasoning understood and trained through learning the mathematical material. There are two types of reasoning that students often use in completing mathematical tasks, namely: Creative Reasoning and Imitative Reasoning. Creative reasoning has four criteria: novelty, flexibility, plausibility and mathematical foundation. Mathematical Literacy is the individual's ability to formulate, employ, and interpret mathematics in various contexts. It includes mathematical reasoning and uses mathematical concepts, procedures, facts and tools to describe, explain and predict phenomena. Thus mathematical literacy helps one to recognize the role of mathematics in the world and to make judgments and decisions needed as citizens. PISA measures what the student knows and what he can do (application) with his knowledge of mathematical creative reasoning will examine more deeply the characteristics of mathematical literacy skills in which it contains some characteristics of creative reasoning ability.

**Keywords:** *Creative Mathematical Reasoning, Mathematical Literacy, Mathematics Framework for PISA*

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## I. INTRODUCTION

The purpose of mathematics learning are: (1) to train how to understand something through thinking and reasoning to draw a conclusion, (2) to develop the creativity of learners by involving intuition, imagination, and an invention developed from the idea of curiosity, diverging, original, can make predictions or guesses to solve a

problem encountered, (3) develop problem-solving skills, and (4) develop the ability to convey information and communicate ideas. Depdiknas (2006) explained that the objectives of mathematics learning are: (a) understanding the concept of mathematics, explaining the interrelationship between concepts and applying concepts or algorithms flexibly, accurately, efficiently and





appropriately in problem solving; (b) using reasoning on patterns and traits , performing mathematical manipulations in generalizing, compiling evidence, or explaining mathematical ideas and statements, (c) solving problems that include the ability to understand problems, designing mathematical models, solving models, and interpreting solutions obtained, d) communicating ideas with symbols, tables , diagrams or other media to clarify circumstances or problems, and (e) have an appreciative attitude to the usefulness of mathematics in life that is curiosity, attention, and interest in learning mathematics, as well as a tenacious attitude and confidence in problem solving. So should the development of learning mathematics in the school should consider that

mathematics is one means of formation of student mindsets that can be measured by the ability. So it is clear that for students (learners) have good mathematical skills, then the teacher of mathematics as a supporting factor must also have good mathematical skills as well.

One of the abilities that can form a person's mindset is the ability of mathematical reasoning. It is in line with what Killpatrick, Swafford & Findell (2001) finds out that one's ability to solve a problem is the components of the mathematical skill: (1) conceptual understanding; (2) procedural fluency; (3) strategic competence; (4) adaptive reasoning; and (5) productive disposition. Bergqvist (2007) suggests the mathematical reasoning framework described in Figure 1 as follows:

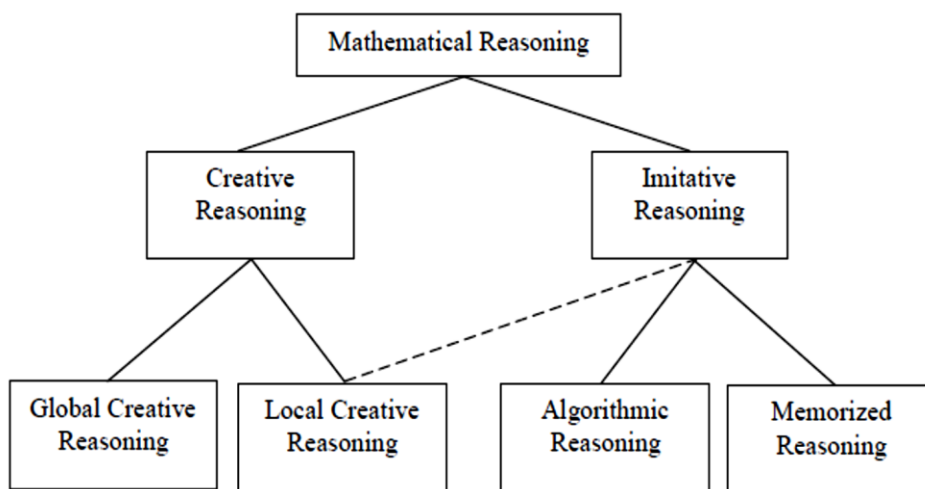


Figure 1. Mathematical Reasoning Framework



In addition, Lithner (2008) suggests that Creative Reasoning (CR) is a reasoning with emphasis on problem-solving process that includes novelty, flexibility, plausible and mathematical foundation.

1. **Novelty** In creative reasoning, a series of new solutions (for reasoning) are created in problem-solving or a series of forgotten, re-created solutions. The only exemplary answer to the settlement procedure is not included in the creative reasoning.
2. **Flexibility (flexibility).** Use different approaches and be adapted to the appropriate problem situations.
3. **Plausible** There are arguments in favor of choice and application of strategy to reinforce the reason that the conclusions are true or reasonable. In this case, guessing the answer is not allowed.
4. **Mathematically based (mathematical foundation).** The argument given by the reasoner exists in the mathematical intrinsic properties of the components contained in the reasoning.

In everyday life, students deal with issues related to personal, community, work, and scientific. Many of these problems are related to the application of mathematics. Good math mastery can help students solve the problem. The question is what

math skills are needed to solve problems in everyday life. Or specifically, what math competencies for 15-year-olds (obtained through special schools or training) are useful for their future careers or for continuing education to the college level. Therefore, the required mathematical literacy is the target of PISA. For PISA 2015, Mathematical Literacy is the individual's ability to formulate, employ, and interpret mathematics in a variety of contexts. It includes mathematical reasoning and uses mathematical concepts, procedures, facts and tools to describe, explain and predict phenomena. Thus mathematical literacy helps one to recognize the role of mathematics in the world and to make judgments and decisions needed as citizens (OECD, 2015). Based on several definitions of creative reasoning and mathematical Literacy and its characteristics, it can be seen a deep slice between the creative reasoning ability of mathematics in the ability of mathematical literacy. Therefore, since the problem of mathematical literacy is closely related to the theoretical framework and PISA framework, this article will specifically analyze the domain of the new PISA problem, which is 2015 based on an indicator of mathematical creative reasoning ability

## **II. METHODOLOGY**



The methodology used in this research is a research with case study methods or approach. Case study including in research of descriptive analysis, research years are focused on a certain case to be saved and analyzed similarly until. this research makes self-intensive on an object that learns as a case.

### **III. THEORETICAL FRAMEWORK**

National Adult Literacy Survey (NCES 1993), Science and skills are essential in performing an arithmetic operation, either singly or sequentially, in numbers used in print media such as checkbooks, or used in a paper order. International Life Skill Survey (ILSS 2000): Includes some of the abilities, beliefs, dispositions, habits of mind, communication skills, and problem-solving skills necessary to involve the effectiveness of a situation that arises in life and work. The problem of the above definition is that both tend to place more emphasis on the real context in this case on quantity. Mathematical literacy is not limited to the ability to impose a quantitative aspect of mathematics but also involves mathematics in a broad sense. For example, when there are foreigners who visit a place, the stranger ask is the direction. In general, some people answer the question is not appropriate because most people do not have the ability to show direction/navigation.

Another example is in reading the map and its interpretation, spatial consciousness or called "spatial property" (Freudenthal 1973), understanding of planning in building a house, and others. All kinds of visualizations are focused on aspects of mathematical literacy and are an essential component of absolute literacy. This program started in 2000. The results of the existing PISA study are PISA 2000, PISA 2003, PISA 2006, PISA 2009, PISA 2012 and the latest is PISA 2015. Indonesia participated in this PISA program since 2000.

Based on the following table, especially in the field of math and science, Indonesian students from 2009-2015 the value continues to climb, but when compared with other countries Indonesian students are still lacking and still have hard work. Meanwhile, Germans in mathematics and science have the opposite value of decline, but when compared with the results of Indonesia is still much better. In the field of reading ability, Indonesia declined and Germany improved. The best results are achieved by students from Singapore, this time in the results of the 2015 PISA test results show their greatest value for math, reading, and science, perhaps because Shanghai did not participate in this 2015 PISA study. But indeed Singapore in 2009 and 2012 is always behind Shanghai



Table 1. PISA test results

<b>Hasil Uji Studi PISA</b>							
<b>Mathematika</b>		<b>PISA 2009</b>		<b>PISA 2012</b>		<b>PISA 2015</b>	
Rangking Negara	Nilai	Rangking Negara	Nilai	Rangking Negara	Nilai	Rangking Negara	Nilai
1 Shanghai	600	1 Shanghai	613	1 Singapura	564		
2 Singapur	562	2 Singapur	573	2 Hongkong	548		
3 Hongkong	555	3 Hongkong	561	3 Macao	544		
4 Korea	546	4 Taiwan	560	4 Taiwan	542		
5 Taiwan	543	5 Korea	554	5 Japan	532		
Jerman	513	Jerman	514	Jerman	506		
USA	487	USA	481	USA	470		
68 Indonesia	371	64 Indonesia	375	63 Indonesia	386		
<b>Kemampuan membaca PISA 2009</b>		<b>PISA 2012</b>		<b>PISA 2015</b>			
Rangking Negara	Nilai	Rangking Negara	Nilai	Rangking Negara	Nilai		
1 Shanghai	556	1 Shanghai	570	1 Singapura	535		
2 Korea	539	2 Hongkong	545	2 Hongkong	527		
3 Finlandia	536	3 Singapur	542	3 Kanada	527		
4 Hongkong	533	4 Japan	538	4 Finland	526		
5 Singapur	526	5 Korea	536	5 Estonia	519		
Jerman	497	Jerman	508	Jerman	509		
USA	500	USA	498	USA	497		
62 Indonesia	402	63 Indonesia	396	64 Indonesia	397		
<b>Sains</b>		<b>PISA 2009</b>		<b>PISA 2012</b>		<b>PISA 2015</b>	
Rangking Negara	Nilai	Rangking Negara	Nilai	Rangking Negara	Nilai		
1 Shanghai	575	1 Shanghai	580	1 Singapura	556		
2 Finlandia	554	2 Hongkong	555	2 Japan	538		
3 Hongkong	549	3 Singapur	551	3 Estonia	534		
4 Singapur	542	4 Japan	547	4 Taiwan	532		
5 Japan	539	5 Korea	538	5 Finland	531		
Jerman	520	Jerman	524	Jerman	509		
USA	502	USA	497	USA	496		
66 Indonesia	383	64 Indonesia	382	64 Indonesia	403		
	74 negara peserta		65 negara peserta		72 negara peserta		

#### IV. RESULT AND DISCUSSION

##### A. The purpose of PISA

PISA orientation reflects changes in curriculum goals and objectives, which pay more attention to what students can do than what they learn in school. Therefore, students are expected to have the ability to literacy (literacy). PISA is designed to collect information through a rotational 3 yearly assessment to find out the literacy of

students in reading, math, and science. PISA also provides information on factors that influence the development of students' skills and attitudes both at home and at school as well as assess how these factors integrate so as to influence the development of a country's policy (OECD, 2010).

Lange, J.D. 2003. Mathematical Literacy Competence (LM):



1. Mathematical Thinking and Reasoning
  - Asking a mathematical question
  - Master the answers to the math questions
  - Differentiate various statements
  - Understand and master mathematical concepts
2. Mathematical Argumentation
  - Knowing the proof
  - Know how the proof differs from other forms of mathematical reasoning
  - Following and appraising from the argument/argument thread
  - Have a sense of an invention
  - Create and show mathematical arguments
3. Mathematical Communication
  - The ability of individuals to communicate orally, writing and other visual forms
  - Understanding others in work
4. Modeling
  - Translating real conditions into mathematical structures
  - Interpret mathematical models in contextual form
  - Working in a model
  - Validate the model
  - Reflection
  - Analysis
  - Conduct a critique of a model or solution
  - Reflections on the modeling process
5. Problem Posing and solving
  - Posing
  - Formulating
  - Defining
  - Problem solving
6. Representation
  - Decoding,
  - encoding,
  - translating,
  - interpreting
7. Symbols
  - Using symbols in mathematical operations
8. Tools and Technology
  - Using help and tools, including technology as needed.

To facilitate the observers of mathematics, it is necessary to provide one picture of how the framework of Pisa 2015 and how far the educators in Indonesia to evaluate the questions given to learners in facing the challenges of the assessment of Pisa 2018.

In OECD 2015, the mathematical modeling cycle in Figure 1 illustrates the ideal and simplified version of the stage through which the problem solver moves when it shows mathematical literacy. It shows an ideal set of stages that begin with "problems in context." A solver tries to identify the relevant mathematics in problem situations and formulate mathematical situations according to the concepts and relationships identified and simplify the assumptions made. The





troubleshooter changed the "problem in a context" to "math problems". The downward arrow in Figure 1 illustrates the work done as a problem solver employing mathematical concepts, procedures, facts, and tools to obtain "mathematical results." This stage usually involves mathematical reasoning, manipulation, transformation, and calculation. Furthermore, "mathematical results"

should be interpreted ("results in context"). It involves troubleshooters interpreting, applying, and evaluating mathematical and fair results in the context of real-world problems. This process of formulating, employing, and interpreting mathematics is a key component of the mathematical modeling cycle and also a key component of the definition of mathematical literacy.

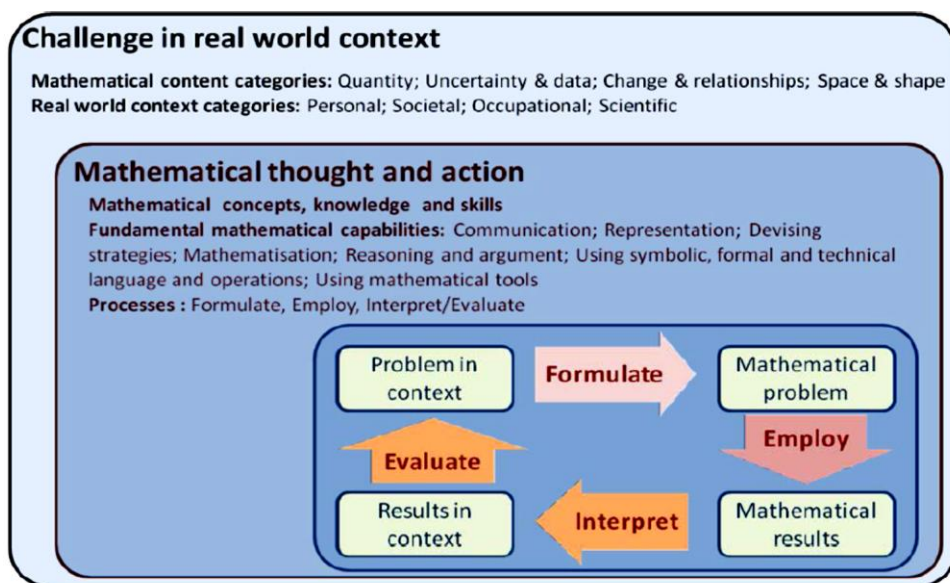


Figure 2. A Model of mathematical literacy in practice

The seven basic math skills used in the Pisa 2015 framework are as follows:

1. Communication:

Mathematical literacy involves communication. individuals feel some challenges and are stimulated to recognize and understand the problem situation. Reading, decoding and interpreting statements, questions,

tasks or objects allows the individual to form a mental model of the situation, which is an important step in understanding, explaining and formulating the problem. During the solution process, the results may need to be summarized and presented. Then, once the solution is found, the problem solver may need to present a solution, and possibly





- an explanation or justification, to others.
2. **Mathematising:**  
Literacy Mathematics can involve transforming a defined problem in the real world into a tight form of mathematics (which can include structuring, conceptualizing, making assumptions, and/ or formulating models), or interpreting or evaluating mathematical results or mathematical models in relation to the original problem.
  3. **Representation**  
Literacy, mathematics very often involves representations of mathematical objects and situations. It can require selecting, interpreting, translating between, and use various representations to capture situations, interact with problems, or to present a person's work. Such representations include graphs, tables, diagrams, drawings, equations, formulas, and concrete forms.
  4. **Reasoning and argument:**  
The mathematical abilities mentioned throughout the phases and activities associated with different mathematical literacy are referred to as reasoning and argumentation. This capability involves a logical thinking process that explores and elements of relationship problems so as to draw conclusions from them, check the justifications given, or provide justification of
  5. **Develop strategies to solve problems:**  
Mathematical literacy often requires formulating strategies for solving mathematical problems. It involves a series of critical control processes that guide an individual to effectively recognize, formulate and solve problems. these skills are characterized as choosing or devising a plan or strategy for using math to solve problems arising from a task or context, and guiding its implementation.
  6. **Using symbolic, formal and technical languages and operations**  
Mathematical Literacy uses symbolic, language and formal and technical operations. this involves understanding, interpreting, manipulating, and making use of symbolic expressions in the context of mathematics (including arithmetic expressions and operations) governed by mathematical conventions and rules. It also involves understanding and utilizing formal constructs based on formal definitions, rules and systems and also using algorithms with those entities. The symbols, rules and systems used will vary according to what the content of certain mathematical knowledge is required for a particular task to



formulate, solve or interpret mathematics.

7. Using mathematical tool

Final mathematical skills that support mathematical Literacy in practice using mathematical tools. mathematical tools include physical tools such as measuring tools, as well as the more widely available computer-based calculators and tools. This capability involves knowledge in utilizing various tools that can aid in mathematical activity, and

know the limits of the tool. mathematical tools can also have an important role in communicating results.

**V. RESULT AND DISCUSSION**

The following is presented an example of the type of student's answers using mathematical literacy skills, then will be given an analysis of the parts that intersect with the ability of mathematical creative reasoning, referring to Lithner (2006: 10).

A pizzeria serves two round pizzas of the same thickness in different sizes. The smaller one has a diameter of 30 cm and costs 30 zeds. The larger one has a diameter of 40 cm and costs 40 zeds. Which pizza is better value for money? Show your reasoning.

Figure 3. An Illustrative item Pizzas

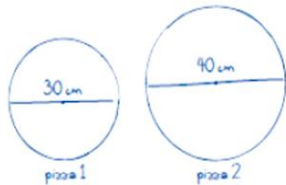
An important part of formulation	
Employing knowledge from Space and shape, and Quantity	<p>The thickness is the same so I can compare areas.</p> <p>Area of pizza 1: = <math>\pi r^2</math>                  = <math>\pi \times 15 \times 15 \text{ cm}^2</math>                  = <math>106.5 \text{ cm}^2</math></p> <p>Area of pizza 2: = <math>\pi r^2</math>                  = <math>\pi \times 20 \times 20 \text{ cm}^2</math>                  = <math>12.56 \text{ cm}^2</math></p>
Formulating a mathematical model to measure value for money	<p>Cost per <math>\text{cm}^2</math> of pizza 1: = <math>30 \text{ zeds} / 106.5 \text{ cm}^2</math>                  = <math>0.04 \text{ zeds/cm}^2</math></p> <p>Cost per <math>\text{cm}^2</math> of pizza 2: = <math>40 \text{ zeds} / 12.56 \text{ cm}^2</math>                  = <math>0.03 \text{ zeds/cm}^2</math></p>
Interpreting mathematical result in real world terms	<p>So pizza 2 is cheaper per <math>\text{cm}^2</math> + is better value</p>

Figure 4. Sample response to Pizzas



Based on the given case example, the analysis of the parts that intersect with the mathematical creative reasoning abilities is as follows

1. Novelty; students use the broad concept of the circle in solving the problem, and already seen the algorithm to get the cheapest price of the two pizzas, in this process the students do not use algorithm procedures given by others
2. Flexible; Students can take the initiative to analyze the situation and adapt it to its condition, this is an unusual initiative among the students.
3. It makes sense; Students have a reasonable mathematical argument about the choice of strategy and its conclusions.
4. Mathematically based; can develop a good conceptual understanding of the area of the circle, the comparison and its application

## **VI. CONCLUSIONS**

Reasoning that students often use in completing mathematical tasks is given broadly divided into two types, namely creative reasoning, and imitative reasoning. Creative reasoning has four criteria: novelty,

flexibility, plausibility and mathematical foundation.

The success of Indonesian students in solving the PISA problems is largely determined by the evaluation system and the ability of teachers to develop students' mathematical literacy and mathematical reasoning abilities. Therefore, it is necessary to develop PISA equivalent problems with Indonesian context either by teachers, researchers, or academics in mathematics education.

Based on the results of the above discussion, it is necessary to do a real step in order to reevaluate the performance of observers of mathematics education in the face of the challenges of Pisa 2018.

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# THE DEVELOPMENT OF LITERACY CULTURE AS A MEAN OF ENHANCEMENT OF ELEMENTARY SCHOOL TEACHER'S PROFESSIONALISM IN ESTABLISHING STUDENT'S CHARACTER

Titin Nurhayatin<sup>1</sup>, Frilia Shantika Regina<sup>2</sup>), & Yeni Cania Puspita<sup>3</sup>)

<sup>1,2,3</sup>) Study Program of Indonesian Education FKIP Pasundan University

titin\_nurhayatin@unpas.ac.id

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**Abstract.** Ever since 2013 curriculum enacted, School Literacy Movement (GLS) has been rolled out. This program is so meant to evolve literacy culture at school that a literate environment can be created so they can be a throughout life learners. Furthermore, it should solve problems, especially low reading interest and ability amongst students. Literacy Culture Development Training held for Elementary School Teachers in Lembang District is to enhance teachers' professionalism in implementing literacy based learning. Problems submitted: 1) Have elementary school teachers in Lembang district coped with GLS (School Literacy Movement)? 2) What kinds of GLS activities are held by Elementary School teachers in Lembang district? 3) Are there problems found by Elementary School teachers in Lembang district in implementing GLS? 4) What have they done in solving those problems? 5) Has this training succeeded in implementing GLS? Method used is training with data collecting technique: interview and test. There are 19 training participants from SDN 1 Cibodas and SDN Buah Batu of Cibodas subdistrict, Lembang district, West Bandung Regency. Based on data from questioner result, elementary school teachers in Lembang district have partly (42%) coped with GLS concept since they have attended the accompaniment on 2013 curriculum. Based on test result, it shows that this Development of Literacy Culture Training has succeeded. This is shown from pretest result of 65 in average and posttest of 90. This shows that there is ability enhancement amongst elementary school teachers in Cibodas subdistrict. Lembang district in mastering the concept and implementation of School Literacy Movement.

Keywords: Training, movement, literacy, school

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## I. INTRODUCTION

This development of literacy culture for elementary school teacher in lembang district is an accompaniment for them in

understanding its importance since early. This activity is emphasized in elementary school since students at this stage can be formed into positive pattern.





Moreover, positive culture of literacy is expected to have long-term impact in forming students who are able to build this nation well.

Book is a window to a world, is a phrase commonly known in Indonesian people. In its development, book has happened so many changes. The changes can be seen in so more various contents, more interesting views, and also the quality of paper and tint which can contain many ideas that it cannot be replaced from times to times.

In its development book has changed more flexible. Book is formed into e-book which no longer need paper and easily accessed since it can be found in smartphone. It makes us realize that information can be accessed easily.

The World's Most Literate Nations (WMLN) launches long list of world's most literate nations. This experiment is done by Jhon W. Miller, the President of Central Connecticut State University, New Britain. Its result placed Finland as the most literate nation in the world (Awanis, 2016). Seen the success in Finland, Indonesia realize the importance in reading culture in

developing the nation. This for sure has to be a culture since children start learning to read.

Elementary school stage is an early one in forming Human Resource. This nation leader to be starts from this stage. Automatically, elementary stage is a the beginning in accustoming someone to read, so that generation created is a generation years for knowledge.

Teacher a one facilitator in education world holds an important role in literacy culture. Being ready to form a human years for education, a teacher has to able to activate litearcy culture. Teacher must have effective strategies in developing students' passion in reading.

The government has rolled out programs called GLS(School Literacy Movement) and PPK(Character Education Reinforcement). Both programs have a very tie bond since they support one another. Religion, nationalism, integrity, mutual assistance, and independence can be formed through reading material full of character reinforcing. Therefore, teachers must choose qualified reading material to form good characted students.

Based on things mentioned above, we consider that literacy cultu



re is very important to develop in Indonesia, especially since the very beginning of an education which is elementary school. Therefore, we think that this community service in Literacy Development Training for Elementary School Teacher in Lembang District is very important to hold.

Purpose to achieve from this community service is to develop literacy culture for elementary teacher, through teacher training and reinforcement to develop and hold a learning that can develop literacy culture among students.

Specific purpose is to make elementary school teacher in Lembang district develop literacy culture, so that literacy culture at school is becoming better. Therefore, early reading behavior at elementary school can be well achieved.

## II. METHOD

Method used in this community service activity is training method. Training given is Development of Literacy Culture for Elementary School Teacher.

Data collecting techniques are questionnaire and test. Result expected is developing literacy culture and implementing it at elementary school, especially in Lembang district.

This training is for teachers at SDN 1 Cibodas and SDN Buah

Batu, Cibodas regency, Lembang district. Steps held as follows.

1. Training program held includes:
  - a. Teacher training and accompaniment to develop and perform a learning which can enhance students' literacy ability, potential and character as a whole.
  - b. Training and accompaniment to create and use information source, learning material, and text at school to accomplish learning in developing students' literacy ability and character.
  - c. Using book in interactive activity (read-aloud) in class, library, book store continuously.
  - d. Accomplishing 15 minutes reading movement in empowering human potential as learner who has life skill and keeps the value of culture and religion, and national character: religious, nationalism, integrity, mutual assistance, and independence.

### 2. Literacy Program Training Process

The learning uses comic method. It is expected to elevate elementary school students' early reading ability. Comic method syntax has six steps describe in the table below.



**Table 1**  
**Comic Method Syntax**

Teacher reads comic book or illustrated book loudly.
Teacher reads comic book or illustrated book with student ( <i>shared reading</i> ).
Teacher guides student to read comic or illustrated book ( <i>guided reading</i> )
Teacher reads comic book with student ( <i>shared reading</i> ).
Student reads comic book independently ( <i>independent reading</i> )
Student draws figure or moment in the story and writes comment or impression in simple sentence.

This training was held at August 26th 2017. It consisted of some material presentation activities on the development of literacy culture and PPK (Character Education Reinforcement) for elementary school teachers in Cibodas regency, Lembang district. GLS materials given are: GLS concept; GLS purpose; kinds of literacy; students' behavior and development; literacy scope at school; books used to develop literacy culture in accordance with student's development level at elementary school. PPK materials presented are: PPK primary concept, development of PPK on the learning of teaching models.

### **III. RESULT**

Literacy development training held for SD teachers in Lembang district is to improve teacher professionalism in accomplishing literacy based learning. SD teachers in Lembang district is expected to build students' character which are religy, nationalism, integrity, mutual assistance and independent through this training. By lots of reading and writing, SD students. Based on problem submitted, writer gets data from quissionaire as follows.



**Table 1 Literacy Activity Quissionnaire Result**

NO.	INDICATORS	HAS DONE	PERCENT AGE	HAS NOT DONE	PERCENT AGE	INFORMATI ON
1.	There is 15 minutes reading activity everyday (before, mid, or after lesson that day)*	8	42%	11	58%	Before lesson
2.	15 minutes reading activity (No.1) has been done for one semester or..... months**	8	42%	11	58%	One semester
3.	Students have daily reading journal	8	42%	11	58%	Some
4.	Teacher, Headmaster, and/or educational staff have become model in 15 minutes reading along with activity No.1 held	8	42%	11	58%	Some
5.	There is school library collects lesson and non lesson books.	8	42%	11	58%	Some
6.	There is reading corner in every class collects non lesson books.	8	42%	11	58%	There are 5 reading corners
7.	There are cozy reading corner aouside class and library collects non lesson books.	8	42%	11	58%	At waiting room, park, school alley
8.	There are reading campaign posters in class, corridor, or other area at school.	8	42%	11	58%	
9.	There is materials full of text (picture, writing) shown in every class, corridor, and other area at school.	8	42%	11	58%	
10..	Library used for many literacy activities.	8	42%	11	58%	
11..	Reading corner used for many literacy activities.	8	42%	11	58%	
12.	Cozy reading area collects non lesson books used for many literacy activities.	8	42%	11	58%	
13.	There is appreciation for student achievement on continuous literacy activities.	8	42%	11	58%	
14.	There is academical activity supporting school literacy culture, such as: other library tour or school mobile library visit	8	42%	11	58%	
15.	There is specific celebration days about literacy.	8	42%	11	58%	
16.	Everyday 15 minutes non lessoon reading activity followed by other non academic activity (not scored) and/or academic activity (scored and one of lesson studied)	8	42%	11	58%	
17.	Students use physical, social, affective, and academic environment along with various books(printed, visual, auditory, digital) full of literacy – besides textbook – to enrich knowledge	8	42%	11	58%	
18.	Student response journal from reading books and textbooks shown in classroom and/or school corridor	8	42%	11	58%	Some
19.	There is appreciation about student achievement in literacy activity (based	8	42%	11	58%	



NO.	INDICATORS	HAS DONE	PERCENT AGE	HAS NOT DONE	PERCENT AGE	INFORMATI ON
	on academic claim)					
20.	There is opprtunity in developing professional literacy for staff, through related institution cooperation (colleges, educaton authority, library service, or experience sharing with other school).	8	42%	11	58%	
Total		160	840%	220	1.160%	160
Average		8	42%	11	58%	8

Based on quissionaire result on training material given, as much as 8 people (42%) said have accomplished literacy activity and 11 people (58%) haven't accomplished it. Therefore, this School Literasi Movement should

be done synergistically among school, family, and society. Based on training pretest and post test result, can be seen in the table as follows.

**Table 2 Literacy Training Test Result**

NO.	PARTICIPANTS CODE	SCORE	
		Pre Test	Post Test
1.	P01	60	90
2.	P02	65	85
3.	P03	75	95
4.	P04	65	95
5.	P05	60	85
6.	P06	65	95
7.	P07	70	95
8.	P08	60	85
9.	P09	60	85
10.	P10	75	95
11.	P11	60	85
12.	P12	65	95
13.	P13	80	95
14.	P14	60	85



15.	P15	60	85
16.	P16	70	95
17.	P17	65	95
18.	P18	60	85
19.	P19	60	85
TOTAL		1235	1710
AVERAGE		65	90

Based on pre test and post test result, this trianing shows significant success. It can be seen from pre test result average of 65. While post test result shows 90. There is 25 in difference. This shows that there is enhancement in SD teachers' ability in Cibodas regency, Lembang district in mastering concept and implementation of School Literacy Movement and PPK (Character Education Reinforcement)

Tests given consist of material related to: concept of School Literacy Movemnet (GLS); purpose of GLS; kinds of literacy; students' behavior and development; literacy environment at school; models of literacy application at school; books used to develop literacy culture Tes yang diberikan mencakup materi yang berkaitan dengan: konsep gerakan literasi sekolah (GLS);t ujian GLS; jenis literasi; perilaku dan perkembangan peserta didik; ruang lingkup literasi di sekolah; model-model penerapan literasi di sekolah; buku yang dapat dimanfaatkan untuk pengembangan budaya literasi

yang according to the level of development of learners in elementary school, as well as materials on strengthening character education.

#### IV. DISCUSSION

This activity filled with material of literacy development and character education strengthening for elementary school teacher in Lembang district. This is followed by teacher representatives from 2 schools, which is SDN 1 Cibodas and SDN Buahbatu, Cibodas regency, Lembang district, Bandung Barat. There are 19 participants. They are very enthusiastic in following the activity, seen by coming on time. This can also be seen from following every steps of training. Participants ask so many question about material given and also tell their literacy experiences held at their school.

Before given material, participants are interviewed about GLS and PPK. Question given consist of mastery and implementation on GLS, and obstacles faced at their school on literacy and charecter education.





Then they are given question as pre test. This is given to know concept mastery, literacy implementation, and character education. Pre test result then used to be discussed in this training activity. At the end of activity, post test is given to see the success of this training.

Finally, this training activity is well done, according to schedule and closed by headmaster of SDN Buahbatu, Cibodas regency, Lembang district, Bandung Barat.

## V. CONCLUSION

Literacy Culture Development for Elementary School Teacher in Lembang District is a mean of delivering and guiding elementari school teachers to understand the importance of literacy since early age. This activity is emphasized in elementary school since student at this stage is becoming human being who can be formed into positive pattern. Besides that, positive culture from literacy is expected to have long term effect to form students who can build better nation.

Character building is very closed with literacy habituation. Through literacy material read, it is expected that students's character can be formed. To enhance literacy program amongst students, teachers should master references, in class or school

library.; classify books based on students's age; supervise books conformity with students' age; ask students to retell written or spoken about reference they read; discipline reading time; give reading target to form reading behavior since early age.

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# THE DIFFICULTIES TEACHING MATHEMATICS MATERIAL ACCORDING TO STUDENTS PERCEPTION

Rina Indriani <sup>1</sup>, Darta <sup>2</sup>, & Taufiqulloh Dahlan <sup>3</sup>

<sup>1&3</sup> Program Studi PGSD, Universitas Pasundan Bandung

<sup>2</sup> Program Studi Pendidikan Matematika, Universitas Pasundan Bandung  
rinaindriani@unpas.ac.id; darta\_pmat@unpas.ac.id; taufiqulloh@unpas.ac.id

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**Abstract.** Based on preliminary study of one elementary high school teacher education program (PGSD) one of the high private college in West Java and the result of literature review showed that elementary school teacher (PGSD) students still find difficulties in math course in elementary school, because mathematics is material which requires a level of understanding and teaching experience. Then this research to find out what factors are causing students difficulties in basic mathematics, difficult math materials, what students do to overcome difficulties to understand mathematical topics and demonstrate it, and alternatively overcome these difficulties. The method used is descriptive analysis, that is analyzing the data and information in the can. Participants in this study are students of Primary School Teacher Education (PGSD) semester V one in private universities in West Java. The results showed that the factors that caused the students difficulties in basic mathematics were attitude factor, motivation, variation of teaching, media usage, infrastructure, and environment. Then the elementary school mathematics material which according to difficulty is the factor, multiples, angles, flat waking area, integer, fractional, volume, flat build properties and round count operation, the effort made by students to overcome the difficulty of understanding mathematical material and demonstrate it is looking ask questions of friends and lecturers, and the alternative to overcome these difficulties is to do lesson study.

**Keyword:** difficulty teaching, mathematic material; studen perception

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## I. INTRODUCTION

Indonesia as a developing country, continues to improve the quality of human resources through national education. The purpose of national education is to improve the quality of Indonesian human beings who are faithful and devoted to God Almighty, virtuous noble character, independent personality, advanced, tough, intelligent, creative, productive and healthy physically and spiritually.

In accordance with the objectives of national education and in line with the demands of the times, the improvement of the quality of education is a very urgent need.

In the implementation of lecture process required communicant (teacher), learning method, tool to convey (media), logical sequence, and atmosphere all activity (system). In learning, the role of teachers is very important to create a pleasant



environment conditions that can affect the coaching and generate creativity in learning activities. However, designing mathematics learning in elementary schools that suits the purpose is not easy. Many students have low grades in a number of subjects, including mathematics.

According to Harris (Mina, 2005) a lot of thinking is done in formal mathematics lectures only emphasizing the analytical skills teach how students understand the claims, follow or create a logical argument, illustrate the answers, eliminate the wrong path and focus on the right path. Learning is one of man's conscious efforts in educating in an effort to improve ability and then accompanied by changes and improvement of the quality and quantity of human knowledge itself. Learning is one of the student activities that takes place within the learning environment. Learning is obtained through formal and non-formal education institutions. One of the most common formal educational institutions in Indonesia is schools where learning and teaching activities involve interaction between teachers and students. The goal of student learning alone is to achieve or obtain the knowledge listed through optimal learning outcomes in accordance with the intellectual intelligence he has.

Learning is a process that results in a change of behavior both potential and actual and is relatively permanent as a result of practice and experience. While learning activities is an interaction activity between learners with educators and learning resources in a learning environment.

In the learning activities students are required keaktifannya. In learning activities, students are not only required for their activities but also their creativity, because creativity in learning can create new situation, not monotonous and interesting so that students will be more involved in learning activities.

The objective of mathematics in primary and secondary education is to emphasize the logic of reasoning and the formation of student attitudes and on skills in mathematical application, as Erman Suherman et al (2003) points out. Learning mathematics is a high mental activity because mathematics deals with abstract concepts related to ideas, logically arranged relationships that will lead to the process of learning mathematics itself. Some factors that determine the occurrence of the process of learning mathematics include: students, teachers or educators, facilities, and infrastructure, and assessment besides the subject matter.

The learning process will be successful if the factors are well managed. Classroom management is usually dominated by teachers. This is where the base of the lack of teachers in managing the class. Teachers should be able to reduce dominance and in student learning that should be given more portion. Because if students can not be directed to active, then the interaction and communication in learning will not happen. In learning mathematics students often find difficulty in learning and teaching, in addition to learning that students have not



meaningful, so the understanding of students about the concept that will be taught is still lacking. As a result the ability of students as prospective teachers are still not ready.

While the teachers who served as learning managers are often not able to deliver the subject matter to the students meaningfully, and delivery is also impressed monoton without regard to the potential and creativity of students so that students feel bored because students are only considered as empty bottles that are ready filled with the subject matter. This shows that in learning mathematics teacher have to use method of learning which varied and adjusted to condition of student so that student better comprehend material presented and student more memorable with learning which have been submitted and student will more remember and not easy to forget the things she learned.

The world of education defines the diagnosis of learning and teaching difficulties as all efforts undertaken to understand and define the nature and nature of learning difficulties and the ways in which it is taught. Also study the factors that cause learning difficulties as well as how to establish and possibly address them, either curative (healing) or preventively (prevention) based on objective data and information possible. Thus, all activities undertaken by teachers to find learning difficulties include diagnostic activities. The need for a diagnosis of learning for many reasons. First, every student should have the opportunity and service to

develop maximally; second; the differences of ability, intelligence, talent, interest and environmental background of each student. Third, college system in college should give opportunity to student to progress in accordance with its ability. And, fourth, to face the problems faced by students, lecturers and other academicians should be more intensive in dealing with students by adding knowledge, open attitude and sharpening skills in identifying learning difficulties and student learning.

In relation to diagnostic activities, broadly classifiable diagnosis may be of two kinds: diagnosis to understand problems and diagnoses that classify problems. Diagnosis to understand the problem is an attempt to better understand the problem thoroughly. While the diagnosis that classifies the problem is a grouping of problems according to the variety and nature. There are issues that are classified into vocational, educational, financial, health, family and personality issues. Learning difficulties are a problem that almost all students experience. Learning difficulties can be defined as a condition in a learning process characterized by certain obstacles to achieve learning outcomes.

Mathematics is one of the subjects that make a positive contribution to the achievement of a smart and dignified society through critical attitude and logical thinking. Mathematics is taught not only to know and understand what is contained in mathematics itself, but mathematics is taught essentially



aimed at helping, train the mindset of the student in order to solve the problem critically, logically, meticulously and precisely. Besides, for students to form personality and use in everyday life. Problems in learning mathematics include teacher factors. Teachers are key to success in educational and learning missions in schools in addition to being responsible for organizing, directing and creating a conducive atmosphere that encourages students to carry out activities in the classroom.

## **II. METHOD**

### **A. Research Subject**

This research was conducted in one of the Elementary School Teacher Education (PGSD) study programs in West Java college. The population in this study is all students of semester V one of the existing Primary School Teacher Education Program (PGSD) in West Java in the odd semester of the academic year 2016/2017. Sampling is done by purposive sampling technique, that is sample determination technique with certain consideration (Sugiyono, 2008).

### **B. Data collection methodology**

To obtain data about the difficulty of teaching elementary school mathematics according to students' perceptions and alternative solutions, among others:

#### **1. Observation Method**

Researchers observe students in presenting the simulation of mathematics learning materials in elementary school.

#### **2. Method of Participation**

Here the researcher will provide knowledge on various ways of using the method on the students.

### **3. Comparative Method**

Compare the opinion of students of Elementary School Teacher Education (PGSD).

### **C. How to Obtain Data**

The data were obtained from questionnaires and interview results with PGSD students FKIP Pasundan university.

Research procedure

#### **1. Preparation**

Preparation in this research are:

- a. Conducted a preliminary study of the difficulty of teaching elementary school mathematics according to student perception.
- b. Develop a research instrument that is accompanied by a guidance process with senior lecturers.
- c. Testing nontest instruments
- d. Choose a research subject
- e. Providing questionnaires and interviews.

#### **2. Implementation**

At the stage of the implementation of research, the first thing that researchers do is determine the subject of research. The implementation of the research was conducted by giving questionnaires to one student of the Primary School Teacher Education (PGSD) study program in West Java. Furthermore, the questionnaire was analyzed to find out the difficulty of teaching elementary school mathematics.



Furthermore, to strengthen the data, the researcher conducted several interviews on some of the students who were considered to be fulfilling to be the source of data.

**3. Data Analysis**

To analyze the questionnaire data using Likert scale used to measure the attitude, opinion, and

perception of a person or group about a phenomenon of education phenomenon (Djaali and Muljono, 2007). Steps to analyze the questionnaire:

Give a score to each student's answer.

Alternative answers to student questionnaires

Score	Alternative Answers
1	Strongly agree (SS)
2	Agree (S)
3	Disagree (TS)
4	Strongly agree (SS)

Determine the ideal or highest score and lowest score by:

For highest score = alternative score answer agree (S) x number of students

For lowest score = alternative score answers strongly disagree (STS) x number of students

Determine the percentage of each answer by:

$$\frac{(\text{lots of student answers})}{(\text{number of students})} \times 100\%$$

Next gives a total score of each statement by:

$$\frac{(\text{total score of student answers})}{(\text{Ideal score / high})} \times 100\%$$

**III. RESULTS AND DISCUSSION**

Being a professional teacher can be seen from the preparation of planning the learning process well. In planning the learning process well. In planning the learning process, a teacher should be able to make a map of the learning process that will be implemented. The facts prove that one of the student difficulties is when planning the learning process.

Tabel 2 Determining Learning Media

No.	Difficulties	Cause	Amount	Percentage
1	Create a lesson unit	Less understood how to create a sample	1	5 %





No.	Difficulties	Cause	Amount	Percentage
2	Designing a study room	Students are too many, the room is too small	4	20 %
3	Determining learning media	Unreachable students, limited infrastructure facilities	8	40 %
4	Determine the assessment procedure	Values for weak students	2	10 %
5	Specifies the math handbook as the source	The child's absorbency is different, the curriculum changes	1	5 %

From table 2 above shows that determining learning media is the most difficulty experienced by teachers. This happens because of the limited facilities provided by the school infrastructure to support the learning process (because this becomes the answer most of the respondents), in addition to these difficulties also because the media whose price is not affordable by students. The second and third positions of the difficulties in planning the learning process in a row are designing the study room and determining the research procedure, these two difficulties are due to students in one too many classes, small classrooms, and relatively low student grades. Meanwhile, making the unit lesson, determining the handbook of mathematics as the source, and determining the teaching method, each of them only 5% of the respondents, meaning very few students who experience it. About the cause of this last difficulty can be seen in table 3.

In addition to students who experience the above difficulties,

there are also students who have no difficulty. Students who do not experience difficulties are relatively small. In table 2 it can be concluded that most students have difficulty in planning the learning process, although the difficulties vary.

#### IV. CONCLUSION

The result of the research shows that the factors that cause the students difficulties in teaching mathematics in elementary school among them are attitude, motivation, variation of teaching, media usage, infrastructure and environment. Then the elementary school mathematics material that is considered difficult to teach it is the factor, multiples, angles, widened flat, integer, fractional, volume, flat waking properties and integer count operation, the effort made by students to overcome the difficulty of understanding mathematical material and demonstrate are looking for themselves, asking friends, and lecturers, and the recommended alternative to overcome these difficulties is to do lesson study.



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# THE ROLE OF EXTRACURRICULAR ACTIVITIES THE FLIGHT PASSENGER IN GROWING STUDENT STUDENT NATIONALISM

Dadang Mulyana

Program Studi PPKn FKIP Pasundan University, Bandung, Indonesia

dadangmulyana@unpas.ac.id

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**Abstract.** This research entitled "The Role of Extracurricular Activities of Flag Fuel Generator In Growing Student's Nationalism Attitude". Descriptive Analysis Study at SMP Negeri 2 Anjatan Indramayu. The purpose of this research is to know and get a picture of the role of extracurricular activities paskibra in growing the nationalism attitude of students in SMP Negeri 2 Anjatan Indramayu. The method used in this study is a case study that focuses intensively on a particular object by studying as a case also using methods of qualitative analysis method which is data collection using primary data and secondary data concerning the classification or categorization of a number of variables. Research subjects were Teacher Pkn, Pembina Paskibra and all Paskibra Extracurricular Members. While the object of research is SMP Negeri 2 Anjatan Indramayu. The results showed that extracurricular paskibra SMP Negeri 2 Anjatan Indramayu role in the case of growing student nationalism attitude. In conclusion, the existing activity program on ekstrakbricular paskibra support the formation of student nationalism attitude, especially discipline, responsibility and confidence. Suggestions from the authors are expected to always support the school and facilitate all its activities. Paskibra members must be able to attract other students to become members paskibra. And for the next peliti expected to develop and perfect the various variables and instruments used in this study.

**Keywords:** extracurricular, Flight Passenger, Nationalism Character, Permanent Behavior, Memory Formation, cognitive theory

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## I. INTRODUCTION

Education is a process of not knowing to be know, from being unable to be as it is contained in the Law of National Education System no. 20 Year 2003 article 1, namely:

Education is a conscious and well-planned effort to create an atmosphere of learning and learning process so that learners actively develop their potential to have spiritual, religious, self-control,

personality, intelligence, noble character and skills needed by them, society, nation and state.

Education is classified into two, namely formal and informal. Formal education is a structured, structured, tiered educational activity and is obtained from schools, and other status-binding educational institutions. While informal education is an educational activity that is usually obtained from the surrounding



environment and is independent, such as religious education, morals and character in the family. In formal education there are several subjects that are taught, one of which is education pancasila and citizenship. Pancasila and citizenship education is a subject that focuses on the formation of citizens who understand, and able to exercise the rights and obligations to be a good citizen, intelligent, skilled and character mandated by Pancasila and the 1945 Constitution. The subjects of pancasila and civic education is a lesson taught by teachers to students in learning at school level. Which focuses on values and education that build confidence in human beings. Pancasila education and citizenship is also an education that teaches the values of Pancasila that relate to attitudes, behavior and human actions.

By instilling the attitude of nationalism students are expected to grow into human builders of the generation that is able to fill and maintain the independence of the nation and country. Nationalism is one of the noble values contained in Pancasila and the Preamble of the 1945 Constitution which needs to be inherited to the successors including the students at the school. The role of the spirit of the spirit of nationalism listed in the Great Indonesian Dictionary (1996, p.684):

Nationalism is a manifestation of the love of the homeland that is described in the form of beauty and peace. The indicator that leads to the love of the homeland is the love of the nation and its

own language, the love of the glorious history of the nation, and the love for freedom and hate against colonialism.

The attitude of nationalism must be embedded early on so as to form a character of the next generation of the nation who love and respect the homeland, as the next generation of the nation we are aware not only by appreciating the services of heroes but we also have to carry out the task as the nation's successor to continue the nation's struggle. Every Indonesian citizen is expected to have a high nationalism attitude because with a national attitude that high can show the existence of nation and state in the eyes of the international world. Nationalism does not grow by itself, but there must be efforts of the citizens themselves to try to have a sense of pride and love of the Indonesian nation.

As the era progressed, the sense of nationalism faded and this was evidenced by various attitudes in interpreting important things for the Indonesian state. One example is during the flag ceremony, there are still many students who do not interpret the meaning of the ceremony. The ceremony is a place to honor and appreciate the heroes who have fought hard to take independence from the hands of the invaders. The students seemed busy with their own business without following the ceremony with khidmad.

SMP Negeri 2 Anjatan Indramayu is one of the schools that have various extracurricular activities. Extracurricular as one of the path of



student development and supporting learning activities, certainly not apart from the understanding of all parties, both students, educators and parents. As stated in SK Mendikbud no. 060 / U / 1993, No. 061 / U / 1993 and No. 082 / U / 1993 argued that: Extracurricular activities are activities organized outside the lesson hours listed in the composition of the program in accordance with the circumstances and needs of schools. Extracurricular activities in the form of enrichment activities and improvement activities with curricular program.

Extracurricular activities that are in SMP Negeri 2 Anjatan Indramayu include extracurricular troops flag raiser (paskibra), young karana (scout), teen red cross (PMR), basket ball, volley ball, and so forth. One that plays an important role in growing the attitude of student nationalism is extracurricular paskibra.

The flag carrier (paskibra) is an activity or activity in a school or educational institution implemented in outside of the lesson hours served as flag raisers. In extracurricular paskibra there are activities that train the character of students, such as marching lines and flag raising exercises in schools that can foster nationalism in students. Where the extracurricular activities paskibra cultivate noble minds by setting mental, moral, physical, knowledge, skills, and experience. In one of the materials of student development, which is stated in the Decree of the Minister of Education and Culture with No. 0416 / U / 1984 which is

about preliminary education of state defense held by school, among others with the formation of flag raising force (paskibra) school. These activities include various types of activities, such as Barrack Row (PBB), Ceremony Flag (TUB), and Leadership Training Student (LKS) pioneer and beginner level. Referring to the fact that there is, it is necessary to see how the role of extracurricular activities paskibra in growing the attitude of student nationalism. Where extracurricular activities can train and educate the character of students positively, if extracurricularly implemented properly, it can create an independent character and soul-spirited nationalism and toughness in students.

## **II. METHODOLOGY**

The approach used in this study is a qualitative approach, namely a process of research and understanding based on a methodology that investigates a social phenomenon and human problems. Consideration that this approach is able to reveal more sharply and deeply about extracurricular activities paskibra in SMP Negeri 2 Anjatan Indramayu. In addition, qualitative research methods have a high adaptability that allows researchers to constantly adjust to the changing situations encountered in this study. In this study using data collection through: observation, interview, documentation study and questionnaire.



### III. RESULTS

Based on the observations in SMP Negeri 2 Anjatan Indramayu District extracurricular activities paskibra this was done well and carried out in the afternoon, the implementation after the provision of lessons to students. Selection of the implementation time in the afternoon is that the implementation of extracurricular paskibra does not reduce the student's teaching and learning hours, so as not to disrupt the teaching and learning process. Because in essence extracurricular activities paskibra was held on Friday after teaching and learning activities. Coach and trainer paskibra always provide motivation to students to further develop their potential, by following activities paskibra students are expected to have a soul of nationalism in schools, community environment, nation and state.

Based on the interview with Master Pkn Mr. Cucu Ruskandi, M. Pd. it can be concluded that nationalism can shape the character of the nation to better love and appreciate its own nation and for now this young people who must have a sense of nationalism because the teenagers who will lead this nation in the future. And for the students to grow and instill the attitude of nationalism is enough to do their duty of learning and do not do negative, with the sense of nationalism we will want to fight for the interests of the state, we will also defend the nation and state and strive to achieve the goals of the country with all the sacrifices we have.

By showing obedience to the rules, and attitudes that we can apply to everyday life, for example when we are in school we must obey the school order, when in our society also participate in implementing the existing rules in society, then when in the life of the state and given the duties of the leader of the nation he will perform the task in accordance with his commitment. And by following extracurricular activities paskibra students can inculcate the attitude of nationalism, and it is expected that students can give appreciation and have a nationalism attitude such as love of the homeland high towards the state, bringing the country towards progress, giving the students good forms of work to the environment, society, state, caring for others, have a friendly attitude to the environment around the nation and state.

Then for the current young generation must also have the principle and belief that the noble value of the nation that we must carry out in the life of society, and the current young generation must also have a high confidence to improve the nation.

Based on the results of interviews with the coach Paskibra Mr. Happy Arifianto, S. Pd. it can be concluded that extracurricular paskibra is a flag raising organization organization known for its discipline, cohesiveness, and courage and can build student character.

Paskibra's extracurricular work program that can improve students' nationalism





attitude is the flag ceremony, because the coach and coach teaches its members in respect for the heroes and only in the flag ceremony they carry a very heavy task of raising a meaningful red and white flag.

There are several factors that can influence the growth of student's attitude nasionalisme is a sense of brotherhood, mutual respect for each other or between extracurricular, and appreciate the opinions of others. By following extracurricular activities paskibra students have an attitude of nationalism, because basically paskibra activities students are required to have a national attitude not just for the style but the students must really have a nationalism attitude such as how to appreciate the meaningful red and white flag and students know about the song- national anthem, culture, regional names, creating activities that are helpful to the surrounding community.

#### **IV. DISCUSSION**

Discussion of research results intended to explain and provide explanations with some things that have been studied. By means of this explanation it is hoped that what happens as illustrated in the results of the research will be in accordance with the theory used as exposed in the preceding chapters.

Extracurricular activities are activities outside the compulsory school to develop new interests and

talents and instill student responsibilities as citizens through experiences. The result is that every Indonesian citizen is expected to have a high nationalism attitude so as to have a sense of pride and love of his own homeland. Activities paskibra is an activity in which there are various activities such as flag raising, marching, pioneer and novice level leadership exercises, and so forth. Activities paskibra is an activity that requires physical and mental strength, because paskibra activities train students to always be ready to accept punishment and movement from senior. The cultivation of the values of nationalism in the younger generation must be instilled since school as an educational institution. School is a service organization that performs learning and teaching activities between educators and learners. Extracurricular program planning paskibra in SMP Negeri 2 Anjatan Indramayu is designed by various parties namely student coaches, coaches as well as paskibra coaches and members paskibra ie students who follow extracurricular activities paskibra. Activities performed by paskibra are:

- a) The routine activities include giving personalities covering the exercises, practicing raising red and white flags properly and correctly, anthems and mental materials. Then for the field material ie marching, physical, and ceremonial training.
- b) The race paskibra.
- c) Ceremony every Monday.



- d) Ceremonies of the great national days.
- e) Commemoration of Independent Day
- f) Paskibra combined exercise.
- g) Implementation of the formation.
- h) Uniform procurement.

In accordance with the design of programs that have been approved by the principal, the implementation of paskibra program refers to the programs that have been made, among others:

- a) Conducting routine activities held every Friday after school home at 13.00 pm.
- b) Paskibra race, SMP Negeri 2 Anjatan Indramayu get proud achievement, cooperation between the school, coach and coach, and students very compact.
- c) Monday ceremony is a routine activity that is carried out and must be followed by school staff and all students of SMP Negeri 2 Anjatan Indramayu.
- d) Ceremonies of national big days, this activity is implemented within the school environment as well as outside the school environment.
- e) Implementation of the Anniversary of RI, as well as the commemoration of the national holidays that become ceremony officers are the students who follow extracurricular activities paskibra in school.

- f) Paskibra joint exercise which is a program designed by SMP Negeri 2 Anjatan Indramayu.
- g) Implementation of the formation, paskibra members are required to be able to create a formation with the coach's guidance.
- h) Procurement of uniforms, this activity is held once a year, the procurement of uniform is held with the aim of cohesiveness and harmony of students.

Execution of extracurricular activities paskibra encountered several obstacles, the constraints derived from internal factors, external, both from the school environment and from outside the school environment. These constraints include the lack of interest and motivation of students to follow extracurricular activities paskibra. Then the constraints of the parents who do not want their children to follow extracurricular activities paskibra which only makes the child can not be kinsentrasi and can not receive the lessons well in school. And the parents are also worried about the physical health of their children who often complain when exhausted after completing the exercise routine extracurricular activities paskibra.

Coach and coach paskibra and also the school should be able to build interest and motivate students to be more excited again in following extracurricular activities paskibra. Then the school, student coaches,



coaches and trainers paskibra collaborate to hold deliberations to parents of students so as not to worry about their children's achievements when actively following extracurricular activities paskibra, and parents are given the understanding that the extracurricular activities paskibra has many things positive and useful for student. As stated in Permendiknas no. 39 of 2008, that extracurricular purposes are:

- a) Developing student potential optimally and integrated which includes talents, interests, and creativity.
- b) Strengthen the student's personality to realize the resilience of the school as an educational environment so as to avoid negative efforts and influences and contrary to the purpose of education.
- c) Actualize the potential of students in achievement of superior achievements according to talent and interest.
- d) Preparing students to become citizens of a society that has a noble, democratic, respect for human rights in order to realize civil society (civil society).

Based on the above description can be concluded that through extracurricular activities are expected talents and potentials that students have developed and optimized, so that they can become individuals who are superior, creative, virtuous noble character, possessing knowledge and skills, healthy physical and spiritual, personality

steady, and have a sense of responsibility towards society and nation.

Results achieved by students after taking extracurricular lessons and impact on the learning outcomes in the classroom that is on certain subjects that have to do with extracurricular that gets good grades on the lesson. Usually students who are active in extracurricular activities will be skilled in organizing, managing, solving the problem according to the characteristics of extracurricular in cultivation.

According to Article 1, paragraph 4 of RI Law no. 20 Year 2003 on National Education System, learners are members of the community who seek to develop themselves through the process of education on the path ladder and certain types of education. Existence of extracurricular organization is one of the strategic values to improve the attitude of nationalism. Extracurricular existence in school is important in improving student's nationalism. Directorate General of Higher Education in Decree No. 226 / C / Kep / O / 1992, states that:

Extracurricular activities as activities outside of regular school hours and during school holidays are conducted both in and out of school, with the aim to deepen and expand the students' knowledge, recognize the relationship between the various lessons, channel the talents and interests as well as complete the efforts of the whole human development.

Sopiatin (2010, p99) explains that extracurricular activity is a



vehicle for developing students through various activities, whether directly or indirectly related to the curriculum, as an integral part of the institutional goals.

Extracurricular activities are expected not only to provide benefits to the development of student creativity but also to foster the attitude of student nationalism to form a good character and love of the homeland. The activity is also useful to fill students' free time to do positive things. Thus extracurricular activities will have a good impact not only on the students themselves but also on the environment. Nationalism is etymologically derived from the word "national" and "ism", which is a nationalism that contains the meaning of consciousness and the spirit of love of the country, has a sense of pride as a nation, or maintains the honor of the nation. In Big Indonesian Dictionary (Depdikbud, 1997: 648), Nationalism is defined as:

awareness of membership in a nation that potentially or actually together achieves, defends, and perpetuates the identity, integrity, prosperity, and power of the nation, the spirit of nationalism. Nationalism can be formulated as one that creates and maintains the sovereignty of a nation by embodying one identity as a bundle of ties in one group.

In general, nationalism is a feeling of love or pride of the homeland and nation by respecting other nations because they feel as part of another nation in the world. In cooperation with other countries, the priority is the unity and unity of the nation, the interests and salvation of

its people, and still look at other peoples equally and respect it as its own nation.

In one of the materials of student development, which is stated in the Decree of the Minister of Education and Culture with No. 0416 / U / 1984 which is about preliminary education of state defense held by school, among others with the formation of flag raising force (paskibra) school. These activities include various types of activities, such as Barrack Row (PBB), Tata Ceremony Flag (TUB), and Leadership Training Student (LKS) pioneer and beginner level.

Paskibra is a devotion for members who are tasks that require sincerity, willingness and dedication that is independent, assertive, intelligent, disciplined, responsible, not differentiate ethnic, race, class and religion, and aims to form each member paskibra in order to have personality who believe, pious, noble, patriotic and caring for each other.

Paskibra members have the main duty to perform flag ceremonial activities. Essentially the flag ceremony is a reflection of the nation's cultural values and is one of the educational efforts that can include the achievement of various educational goals. Discipline, physical and spiritual fitness, motion skills, leadership skills are the things that can be obtained through flag ceremonial activities.

Based on the above description can be concluded that paskibra is one container of organized extracurricular activities and can support the formation of student



characters in fostering the attitude of nationalism that is love the homeland, willing to sacrifice, unity and unity, and unyielding spirit. So that students can bear a sense of pride in the love of the homeland and nationalism that is based on the values of Pancasila as a guide for the life of the Indonesian nation.

Thus the data obtained through existing research and theory, it can be concluded that with extracurricular activities praskibra which is one of the activities that can foster the attitude of student nationalism, it can be seen from the results of questionnaires and interviews that researchers do in SMP Negeri 2 Anjatan Indramayu .

## **V. CONCLUSION**

From the results of research and discussion about the role of extracurricular activities troops flag raiser in growing the attitude of student nationalism in SMP Negeri 2 Anjatan Indramayu, researchers can summarize as follows:

1. The results of research showed that extracurricular activities paskibra can contribute to the formation of characters and attitudes of students because the program of extracurricular activities paskibra in SMP Negeri 2 Anjatan Indramayu contains aspects of nationalism attitude namely love the homeland, flag ceremony training, discipline,

responsibility, willing to sacrifice, marching rules, and unyielding spirit. Program of extracurricular activities paskibra in growing the attitude of student nationalism in SMP Negeri 2 Anjatan Indramayu well done. Business coaches in cultivating the attitude of student nationalism has been good, with a paskibra coach who is democratic, disciplined, and assertive.

2. The factors driving the formation of students' nationalism attitude from the parents themselves. Coach and trainer paskibra socialize to parents of students that extracurricular activities paskibra has many things positive and useful for students. The coach and coach paskibra also always motivate the members that this paskibra extracurricular is very useful for organizing training in the future.
3. Student motivation to follow extracurricular activities paskibra caused by self-willingness factor to add experience, develop potential, train organize. In every program that existed in extracurricular paskibra aims to form the soul of a leader, foster the attitude of student nationalism, foster a sense of brotherhood, discipline and improve student achievement. Thus paskibra very important role in growing the attitude of student nationalism.



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# TEACHER ROLE IN DEVELOPING COMMUNITY LEARNING AND MOTIVATION FOR STUDENTS IN PRIMARY

**Devi Rahmiati**

Program Studi PGSD FKIP Pasundan University, Bandung, Indonesia  
devirahmiati@unpas.ac.id

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**Abstract.** This article focuses on "Community Learning and Motivation Students". The concept of learning community (learning community) is not just a collection of individuals, but the settings where individuals in the community who have common goals which include 6 things that make it a complex system (multidimensionality / multidimensional simultaneity / simultaneous, immediacy / immediacy, unpredictability / unpredictable, publicness / openness, history / history), linked together in the process of teaching and learning in the classroom, and each show concern for each other participant classes that have the inclination and norms similar to feel and act in certain ways in order to achieve the objectives and the reward has been determined. Based on the analysis of "community learning and student motivation", it could be concluded that motivation is a very important factor that influences and directs our behavior. For the teacher, it is important to understand motivation and apply in their teaching teachers to create a productive learning community. By understanding the different motivational needs of students and different forms of motivation, such as intrinsic and extrinsic motivation, intrinsic motivation is a motivation that comes from within, without any desire to get a prize or award. While intrinsic motivation is a motivation that occurs because of a desire to earn rewards, reward, or to avoid punishment. Provision of this motivation is adapted to the needs and levels of students we teach. Do not be afraid to experiment, but be sure to learn from experience. We recommend that teachers should evaluate the achievement of motivation in the classroom, by assigning students to keep a diary to write down your thoughts and feelings about everything they learned and what happens in the classroom. What they wrote giving a deep insight (insights) about fears and emotions they are feeling in their students, as well as their cognitive development. So that teachers know what is causing the lack of student motivation, then what is causing the problem arises. By using the daily notes that teachers can understand what students understood conceptually and able to use them to build new ideas and provide solutions in order to create a productive learning community. Teaching is a process that requires constant revision and careful. Needs important service to the students, but the structure of the school has been based on the policies of the present administration.

**Keywords:** Teacher, Learning Communities, and Student Motivation.

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## **I. INTRODUCTION**

Education in schools, particularly at primary schools should realize educational goals set by the Constitution, and one of the teacher's role is to improve student achievement, a phenomenon that occurs in the field in connection with student achievement shows that they encountered students who are less passionate in following teaching and learning activities. In the teaching and learning activities, if there is someone the students, for example, do not do anything that should be done it is necessary to investigate the causes. In other words, these students need to be given a stimulus to grow motivation in itself.

This is because the teacher is not able to provide motivation and awards to students in learning, in fact, the teacher is very seldom provide motivation even though it was like saying, thumbs up, or words that can give encouragement to students to learn, should motivate the students should always be carried out in the learning process, because basically people will always require the award against him, according to the theory of needs Maslow and consists of 5 basic needs are physiological needs, security needs, social needs, the needs of self-esteem and self-actualization. With the needs of children or students this means students need appreciation of what he had done.

Lack of motivation by the teacher probably because teachers do not understand the nature and function of motivation, and the importance of teachers to motivate and raise self-esteem of children, teachers should be able to evaluate themselves on what the shortage of teachers so that students are less motivated, whether of a learning system that is less innovative, whether teachers rarely give words of encouragement to the students, teachers only pay attention to certain students, or the teacher gives words poorly when students one which can decrease motivation.

Therefore, as a teacher we have to understand about motivation, what is meant by motivation, things what underlies the need to motivate students, the kinds of motivations that are tailored to the level of learners, theories of motivation and how teachers build a community productive learning.

Teachers also must be motivating to children, which is tailored to the child's developmental level, for example by giving some strategies (eg, simulations and games), teachers can also provide reinforcement in the form of gifts, or giving verbal and non-verbal reinforcement.

Create and build a positive atmosphere in the classroom is to provide feedback (feedback) and positive reinforcement without a



negative word against children in learning activities in the classroom, feeding reversal (feed back) aimed to evaluate the child's fault to be more motivated better learning.

## **II. METHODOLOGY**

The methodology in the process of writing this article is to approach the study of literature (review). Authors seek various theories that are tailored to the theme of the seminar and analyze these theories are based on the study of literature to solve applicative problems.

## **III. DISCUSSION**

Community learning in the classroom affect student engagement and achievement, and determine how a teacher's classroom will be transformed from a group of individuals into a cohesive group that is characterized by high expectations, relationships that are attentive, and extracting information that is productive. The concept of learning community (learning community) is not just a collection of individuals, but the settings where individuals in the community who have a common goal, have a relationship with, and

each show concern for one another that has tendencies and norms similar to feeling and acting with certain way.

### **A. Human Motivation**

Motivation is generally defined as a process that stimulates our behavior or move us to act. According Pintrich (2003), the motivation comes from the Latin movere means "what makes people move" toward certain activities and tasks. Psychologists distinguish motivations into two main types, namely: (1) intrinsic motivation, causing people to act a certain way to bring satisfaction / personal pleasure; (2) extrinsic, characterized by individuals who act to get the reward that comes from outside the actions / activities.

According to Graham and Weiner (1996), Pintrich and Schunk (2002), Spaulding (1992), and Stipek (1996, 2001) there are five perspectives on aspects of motivation and behavior in academic situations, namely:

Tabel 1 Perspectives on aspects of motivation and behavior in academic situations

<b>No.</b>	<b>Theory</b>	<b>Theorist</b>	<b>Main idea</b>
1.	<i>reinforcement Theory</i> / Reinforcement theory	Skinner	Individuals responded to the events of the environment and



No.	Theory	Theorist	Main idea
			strengthening extrinsic
2.	<i>needs Theory</i> / Theory needs	Maslow, Deci, McClelland, Csikszentmihalyi	Individuals trying to meet the needs (self-fulfillment, self-determination, achievement, affiliation, and influences)
3.	<i>Cognitive Theory</i> / Cognitive theory	Stipek, Weiner	Actions of individuals affected by the attribution of confidence, especially on the situation of success and failure
4.	<i>Social Cognitive Theory</i> / Social cognitive theory	Bandura	Actions of individuals affected by the value of certain goals for himself and expectations for success
5.	<i>sociocultural Theory</i> / Sociocultural theory	Vygotsky	The action is influenced by a variety of groups that help socialize and provide individual identity

## B. Community Learning

Ecological perspective view of the class as a place of teachers, students, and others who interact in an environment of mutual dependence. There are three basic ideas that help us to understand the complexity of the class and provides guidance on how

to build a more productive learning communities, namely:

### 1. property Class

Walter Doyle (1986) states that the class has six properties which make it a complex system, including: (a) multidimensionality, the class is a place filled with several people



- with backgrounds and interests, and skills to compete are different and have been planned and set forth in report, (b) simultaneity, the occurrence of various problems in the class that takes place simultaneously should be considered and addressed by the teacher effectively, (c) immediacy (immediacy), (d) the unpredictability (unpredictable), (e) publicness (openness), (f) history (history).
2. process Class  
Richard and Patricia Schmuck Schmuck (2001) developed a somewhat different framework to look at the class. The processes of interpersonal and group classes that help participants to deal with conflicts and issues of expectations, leadership, interests, norms, communication and cohesiveness are important elements in developing a positive classroom community.
  3. Class structure, is how the class is organized around tasks and participation in learning and how to set goals and reward.
    - a. The structure of the task (task structure), the job / task is expected to be done by students in the classroom and the cognitive and social demands imposed on them to perform tasks in accordance with the academic disciplines (concept organizing framework, the methods for discovering new knowledge). Structural assignments in class affect the thoughts and actions of the class participants and help determine the degree of cooperation and involvement of students. Duties and classroom activities not only help shape the behavior of teachers and students, but also help determine what students are learning.
    - b. The structure of interest and reward, according to Johnson and Johnson (1999) and Slavin (1995) identified three structures different purposes: (i) the structure of interest cooperative (cooperative goal structure), students can achieve when they work together to achieve those goals; (Ii) the competitive goal structure (competitive goal structure), students reach their goals if the other students can not reach that goal; (Iii) the individualistic goal structure (individualistic goal structure), achievement of the objectives of students not associated with the achievement of the goals by the other students. Rewar structure determines how the reward can be distributed in class. There are 3 types of reward structure: cooperative / cooperative, competitive / competitive, and individualistic / individuals.



- c. The structure of class participation, according Cazden (1986) and Burbules & Bruce (2001), the structure of participation helps determine who can say what, when, and to whom during learning in the classroom.
- C. Strategies for Motivating Students and Productive Learning Community Building**
- Building a productive learning community and motivate their students to engage in meaningful learning is the ultimate goal of teaching. There are several strategies to achieve productive classroom situation, is as follows:
- Believe the capabilities of students and focused on factors that can be changed
  - Avoid excessive emphasis on extrinsic motivation
  - Create learning situations that have feeling positive tone
  - Self awareness on the interests and values of intrinsic students
  - Structuring learning to get the "Flow Experience"
  - Using knowledge of the results and do not make excuses for failure
  - Focusing on the needs of students, including the need for the Self-determination
  - Focusing on the structure of learning objectives and the level of difficulty instructional tasks using multidimensional tasks
  - Facilitate the development and cohesion of the group, according Schmuck and Schmuck (2001)

Stage	Needs and Behavior Group and Members
I - Inclusion and Membership	At the beginning of the life of class, students find a gap for himself in his peer group. Students want to show a good image and behavior. Teachers have a big impact during this period, because the authority bears.
II - Effect and collaboration	The class members enter the two kinds of power struggle. (1) The power struggle that test the authority of teachers, (2) which establishes the pecking order the seizure of the peer group. If tensions are not insurmountable and power relations are not balanced, the group can not run productively to reach the next stage.
III - Individual and Academic Achievement	Class entered the stage of development to work productively in order to achieve academic goals. During this stage the student can set and achieve goals and perform various tasks together. Grades can also retreat to the previous stage.





Stage	Needs and Behavior Group and Members
IV - Self-renewal / transition / closure	At this stage, the members can think about sustainable growth and on how to take on new tasks and more challenging. It can also be a stage which can result in conflict, due to changes in the resolution of tasks can mess around a membership that occurred in the previous stage.

#### **IV. CONCLUSION**

Motivation is a very important factor that influences and directs behavior. For the teacher, it is important to understand motivation and apply learning in the classroom in order to create a productive learning community.

By understanding the different motivational needs of students and different forms of motivation, such as intrinsic and extrinsic motivation, intrinsic motivation is a motivation that comes from within, without any desire to get a prize or award. While intrinsic motivation is a motivation that occurs because of a desire to earn rewards, reward, or to avoid punishment. Provision of this motivation is adapted to the needs and levels of students we teach. Do not be afraid to experiment, but be sure to learn from experience.

We recommend that teachers should evaluate the achievement of motivation in the classroom, by assigning students to keep a diary to write down your thoughts and feelings about everything they learned and what happens in the classroom. What they wrote giving a deep insight

(insights) about fears and emotions they are feeling in their students, as well as their cognitive development. So that teachers know what is causing the lack of student motivation, then what is causing the problem arises. By using the daily notes that teachers can understand what students understood conceptually and able to use them to build new ideas and provide solutions in order to create a productive learning community. Teaching is a process that requires constant revision and careful.

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# ANALYSIS OF STUDENT UNDERSTANDING AND PERCEPTION OF THE ESSENCE NATURAL SCIENCE (NATURE OF SCIENCE) AS A BASIC FOR DEVELOPING LEARNING BASED CHARACTER IN BASIC SCHOOL

Acep Roni Hamdani<sup>1</sup>, Udin Samsudin<sup>2</sup>, Imas Srinana Wardani<sup>3</sup>

<sup>1</sup>PGSD FKIP Pasundan University, Bandung, Indonesia,

<sup>2</sup>SDN Cicurug, Sukabumi, Indonesia

<sup>3</sup>PGSD FKIP PGRI Adibuana, Surabaya, Indonesia

<sup>1</sup>acepronihamdani@unpas.ac.id , <sup>2</sup>samsudin37@yahoo.co.id , <sup>3</sup>srinanaimas@gmail.com

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**Abstract.** This study aims to determine the extent to which students' understanding of the nature of Natural Sciences, because it is a natural or natural concept of Nature Science is what memorized concepts. The students' understanding of the nature of Natural Sciences varies from one place to another, with this study aims to develop character-based nature teaching in elementary school according to their respective regional characteristics. The research method used is descriptive quantitative. The study was conducted in several Primary Schools in Odd Semester Year 2016/2017. The population of the study were elementary school students in West Java and East Java. The sampling technique was done by using stratified random technique that is elementary school students grades 3 to 6, at 4 elementary school in West Java province, and three elementary school in the province of East Java. From the data collection process, obtained a sample of 485 students. Data collection techniques were conducted using non-test instruments, including: questionnaires, interviews, and observations. The results show that differences in understanding and perception influenced the background of the students and the condition of school infrastructure. Thus this can be used as a basis for developing character-based nature learning by applying scientific approach.

Keywords: Nature of Science, Student Understanding, Student Perception

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## I. INRODUCTION

Natural Science aims to enable students learning science literacy, this can be done by trained me skills processes and attitudes to students with adjusting stage of cognitive development of students. By learning

science students are expected to understand the nature and the things that happen in it, p learning Natural Science Natural Science should cover the nature of which has three components: science as the product science as a process, and science as a



scientific attitude. The development of the understanding of science can train students to make decisions and take responsibility when faced with the problem of knowledge [1].

Lederman [2] states that by understanding the Natural Science can make people more aware and can make responsible decisions when dealing with a scientific decision, students will gain experience through education Sciences A lam to reason inductively with various concepts and principles of Science A lam. Ability acquired students are expected to be used to reveal the natural phenomena in everyday life, applying the principles of Natural Science with technology, to develop habits and scientific attitude to locate and enhance students' understanding of the concept.

A teacher to instill a concept of science in learning disable in, need to be taught contextually with connect yes to the surrounding environment, because it can increase critical thinking skills and understanding of the concept of the material being taught to students. This is consistent with Piaget statement that elementary school children ages 7-12 years are in the operational phase concrete, students will be assisted if in understanding the concepts or knowledge requires a learning experience concrete [3]. The role of the teacher guides the students determine or detailing steps are necessities their needs related to activities students. Especially for

children, teachers need to help create a research plan in stages [4].

In essence, Natural Science is built on the basis of scientific products, scientific processes, and scientific attitudes. In addition, Natural Science is also viewed as a process, as a product, and as a procedure. As the process is defined all scientific activities to perfect the knowledge of nature as well as to discover new knowledge. As the product is defined as the result of the process, in the form of knowledge taught in school or outside school or reading material for dissemination or dissemination of knowledge. As the procedure is intended as a methodology or means used to know something is commonly called the scientific method (scientific methods) [5]. In addition as a process and product, Daud Joeseof [6], has suggested that the Natural Science be used as a "culture" or a group or a social institution with a tradition of values, aspirations, and inspiration.

According to Patta Bundu [7], science or commonly translated Natural Science comes from the word "Natural Science". Natural has a natural meaning and is related to nature, while science means science. That is, science is seen as a science that learn about nature or who study events that occur in nature. From what is learned, it seems that the Natural Science has the object and issues a holistic or comprehensive. While In accordance with the curriculum center [8] states that the



nature of the Natural Science contains four main elements in Natural Science, which from all four of these elements is the main characteristic of the whole, which includes: a. Attitudes: curiosity about natural phenomena, living things, and causal relationships that underlie problems in nature that can be solved through scientific procedures, b. Process: procedures or ways of solving problems through scientific method, c. Products: in the form of facts, principles, theories, and laws, and d. Application: the application of scientific methods and the concept of Natural Science in everyday life.

Referring from some of the above definitions it can be concluded that the nature of science is a science that is presented thoroughly to study nature and its symptoms on the basis of elements of attitudes, processes, products, and applications in which the four elements are a unity. Therefore, students are expected to have full knowledge and are able to understand natural phenomena through problem-solving activities using scientific processes / scientific method so that the learning activities is a meaningful process with the integration of the value of what is learned. Complementing this, according Sudjana [9] basically Natural Science (Natural Science) or science, namely: a way to learn about natural phenomena and its contents as they are, and confined to the human experience. In attempting to interpret these natural phenomena, human

beings seek to clarify the various events, causes, and impacts that result from using the scientific method. The scientific method is what is the bridge between the theoretical explanation with empirical evidence. In addition, Natural Science is also seen as a process and product. Natural Science is said to be a process because it requires the existence of a process or specific ways that are analytical, meticulous and complete, and connect it with natural phenomena with each other to form a conclusion. Natural Science as the process includes how to acquire, develop and apply knowledge, including how to work, think, solve problems, and behave. While Natural Science is said as a product because it understands natural phenomena in the form of principles, concepts, laws, theories and facts that aim to explain the various natural phenomena that occur. Characteristics of science education as a product or content includes facts, concepts, principles, laws, and science theory.

So in essence Natural Science consists of three components, namely scientific attitudes, scientific processes, and scientific products. This means that science is an activity or an active process of using the mind in studying the natural phenomena that can not be contemplated, not only consists of a collection of knowledge or various facts to be memorized. Natural Science using what you already know to understand the other sciences unknown. A problem that



has been formulated and then solved will allow the Natural Science to develop dynamically, so that the body of knowledge as the product increases. Each subject of course has a certain purpose in learning. The purpose of science learning contained in the Curriculum 2013 is to gain confidence in God Almighty because by studying science students can know the existence, beauty, and regularity of nature.

It will develop a curiosity, a positive attitude, and an awareness of the relationship interplay between science, environment, technology, and society. Then the students will develop the knowledge and science concepts that are useful and can be applied to problems in everyday life. Students will also develop the skills to observe and study of the natural surroundings, solve problems, and make decisions. Then the students' awareness will be increased to take part in preserving, maintaining, and preserving the natural environment as God's creation. Learning science as well as the provision of knowledge, concepts and basic skills to continue their education, Sudjana [10]. Science as a product because the content of science is an empirical and analytical activity undertaken by experts. Science products contain the facts, principles, laws, concepts and theories used to explain or understand nature and the phenomena that occur in it Sudjana [11]. Science as a

process is usually synonymous with the skills to assess the phenomena of nature through a certain way to study the phenomena of nature through a certain way to gain knowledge as well as the further development of science. Besides the concept that can be used will last longer and can be used to solve problems in everyday life [12]. Scientific attitude is different from attitudes toward science. Scientific attitude is the attitude of scientists to seek and then develop science, while attitudes toward science is a person's inclination toward science [13].

In the 2013 curriculum used approach scientific, scientific approach stated that the essence of science as a process, namely the discovery of the truth in the scientific method [14]. To develop students' competence, the learning process of Natural Science should emphasize the provision of direct experience. So with the curriculum 2013 ng yes quality science teaching can materialized. To determine whether students in elementary already understand or not of the nature of science, we do research on the analysis of elementary students' understanding of the nature of science. To obtain the full picture and representative, we doing research on students' understanding of the nature of science in terms of a variety of students varied backgrounds, which will result from this study will be the



basis for developing character-based students in scientific approach.

## II. METHOD

Research methods It uses quantitative descriptive method. Research conducted at several Primary School in Odd Semester Academic Year 201 6/201 7. The study population was of elementary school students in urban and rural areas in the two provinces of West Java and East Java. The technique of taking sample is done by using with random techniques (randomized) Stratified are students of grade III, IV, V, and VI, on the 4th Primary School in West Java province, and three elementary schools in the province of East Java. From the data collection process stratified random technique based on the obtained sample represented students some 485 people. Data was collected using non-test instruments, including: questionnaires (questionnaires) with a Likert scale (4, 3, 2, 1), interview (interview), and observations (observation).

Each of these non-testing instruments, which include: a questionnaire (questionnaire) with Likert scale (4, 3, 2, 1), the questionnaires (interview), and observations (observation) were resentful been through the process of testing the validity of the instrument. Test the validity of the instrument (questionnaire) in this study using a

test construct validity with reference to expert opinion (expert judgment) and the empirical validity. Empirical validity (item) is calculated by the product moment correlation rough numbers with criteria 0.3 [15].

Measurements were made based on the scores obtained from the questionnaire on the nature of the science (NOS) by the students, the results of observation and interview. Components of the nature of science (NOS) were included in the questionnaire (questionnaire) include the following: 1) Durable and tentative; 2) Based Observations; 3) Based on Empirical Data; 4) Solving the problem with the scientific method; 5) Form of facts, principles, theories, and laws; 6) How to Know and Explaining Nature and 7) How it Works Scientists.

## III. DISCUS

### A. Result

From the questionnaire distributed to the respondents, then performed data processing by arranging the data table then calculated to obtain the average percentage data of each NOS Component according to the classification of respondents. Respondents were grouped by sex, class, school, and school area town and village. Distribution average percentage yield the simple Retained Earnings are presented in figure 1 as follows, so that it becomes concrete





and real, the table is processed into a graph in Figure 1 as follows.

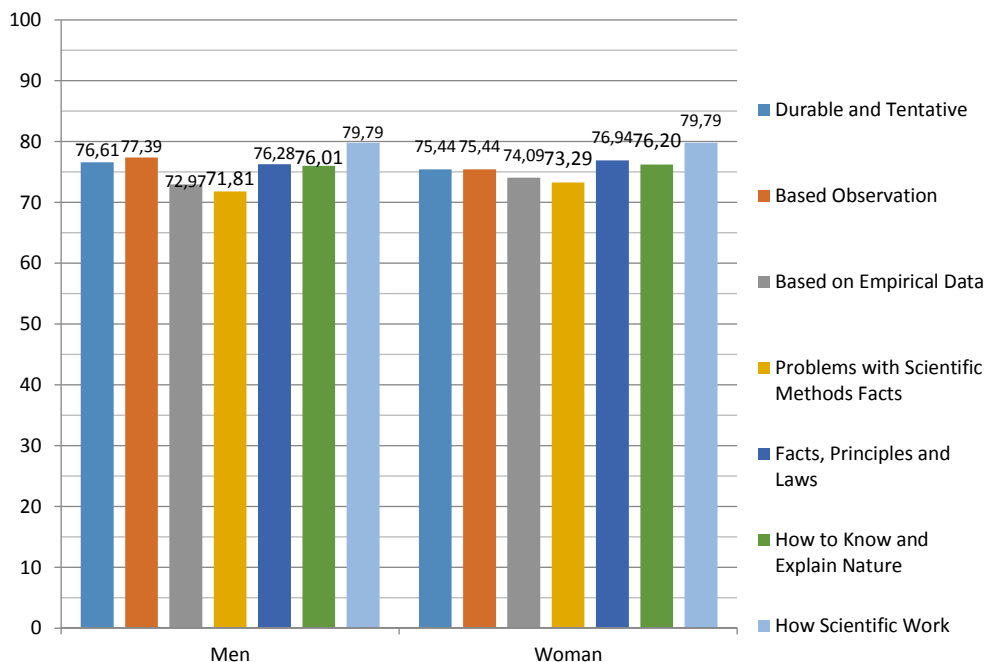


Figure 1. Comparison of Percentage of components NOS Male and Female Students

From Figure 1 it is known that the percentage of male students who answered; durable and tentative 76,67%, based on observation 77,39%, based on empirical data 72,97%, problem solving with scientific method equal to 71,81%, in fact, principle and law equal to 76,28%, how to know and explain the nature of 76,01%, how scientists work for 79,79%. While the percentage of female students who answered;

durable and tentative amounted to 75,44%, based on observations of 75,44%, based on empirical data amounted to 74,09%, solving the problem with scientific methods of 73,29%, in the form of facts, principles and laws of 76,94%, how to know and explain the nature of 76,20%, how scientists work for 79,79%.



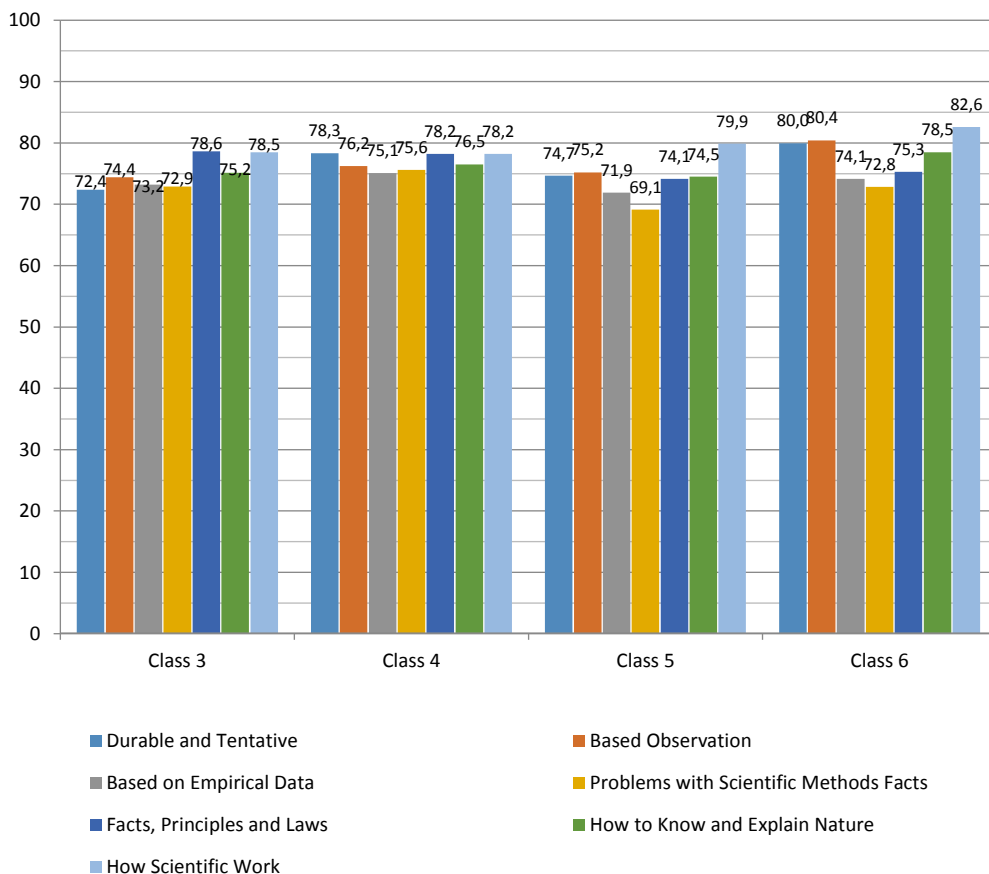


Figure 2. Comparison of Percentage of components NOS Class 3 - Class 6

From Figure 2 it is known that the percentage of the number of Grade 3 students who answered about; durable and tentative 72,4%, based on observation equal to 74,4%, based on empirical data equal to 73,2%, problem solving with scientific method equal to 72,9%, facts, principle and law equal to 78,6% how to identify and explain the nature of 75,2%, a car 78,5% of scientists' work. Percentage of number of grade 4 students who answered about; durable and tentative 78,3%, based on observations of

76,2%, based on empirical data of 75,1%, problem solving with scientific method of 75,6%, in fact, principles and laws of 78,2%, how to know and explain the nature of 76,5%, how the work of scientists of 78,2%. Percentage of number of 5th grade students who answered about; durable and tentative equal to 74,7%, based on observation 75,2%, based on empirical data equal to 71,9%, problem solving with scientific method equal to 69,1%, facts, principle and law equal to 74,1% how to know and explain the nature of



74.5%, the way scientists work by 79.9%.

Percentage of number of Grade 6 students who answered about; durable and tentative 80,0%, based on observation 80,4%, based on

empirical data equal to 74,1%, problem solving with scientific method 72,8%, facts, principle and law equal to 75,3% how to identify and explain the nature of 78.5%, c fig scientists working at 82.6%

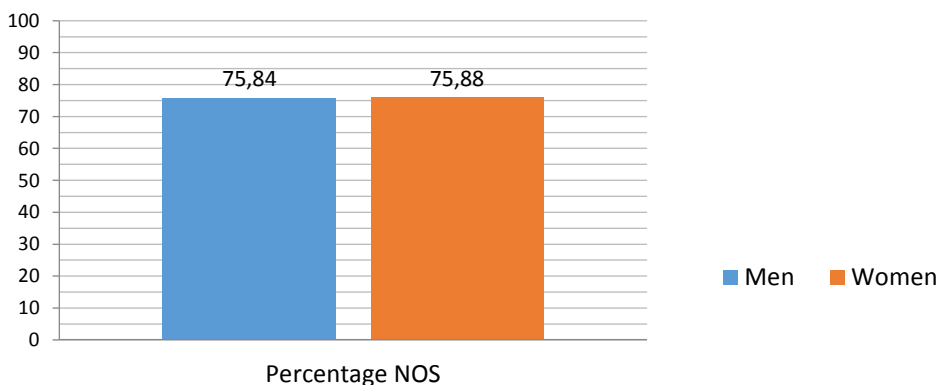


Figure 3. Comparison of Percentage NOS Among Students Male and Female

From Figure 3 it is known that the percentage of male students who understand the science lesson with 7 indicators namely; durable and tentative, based on observation, based on empirical data, problem solving, scientific method, facts, principles

and laws as big as, how to know and explain nature, and how scientists work 75.84%. While the percentage of female students as big as who understand science lesson with 7 indicator 75,88%

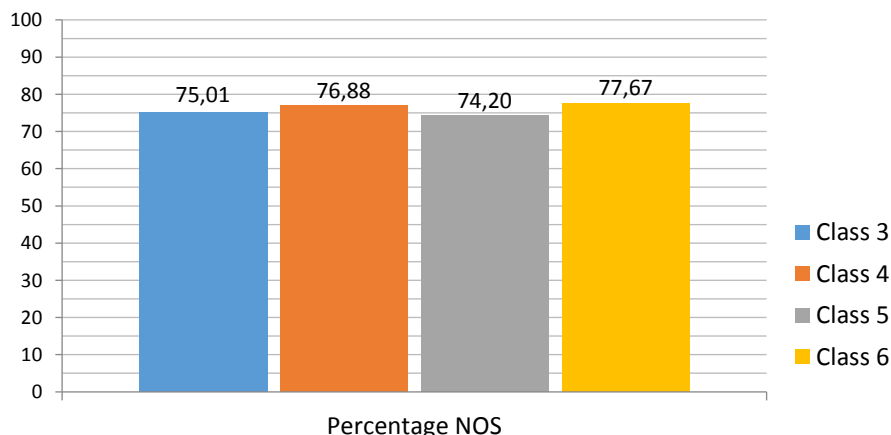


Figure 4. Comparison of Percentage NOS between Grades 3-6



From Figure 4 it is known that the percentage of the number of 3rd grade students who understand the science lesson with 7 indicators namely; durable and tentative, based on observation, based on empirical data, problem solving, scientific method, in the form of facts,

principles and laws as big as, how to know and explain nature, and how scientists work for 75.01%. the percentage of students in grade 4 is 76.88%, the percentage of students in grade 5 is 74.2%, and the percentage of students in grade 6 is 77.67%

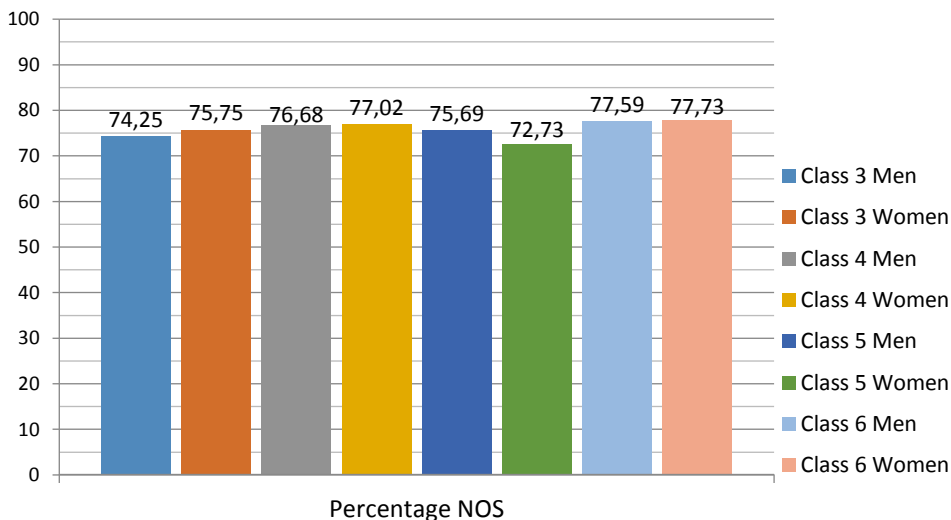


Figure 5. Comparison of Percentage NOS between Class and between Men and Women

From Figure 5 it is known that the percentage of 3rd graders who understand the science lesson with 7 indicators are; durable and tentative, based on observation, based on empirical data, problem solving, scientific method, facts, principles and laws as big as, how to know and explain nature, and how scientists work 74.25%, the percentage of students 75.75%. Percentage of 4th graders who understand science lesson with 7 indicators; durable and tentative, based on observation, based on empirical data, problem solving, scientific method, in the form of facts,

principles and laws as big as, how to know and explain nature, and how scientists work 76.68%, the percentage of students 77.02%.

Percentage of the number of 5th graders who understand the science lesson with 7 indicators namely; durable and tentative, based on observation, based on empirical data, problem solving, scientific method, facts, principles and laws as big as, how to know and explain nature, and how scientists work 75.69%, the percentage of students of grade 3 of women 72.73%. Percentage of the number of 6th grade male students



who understand the science lesson with 7 indicators namely; durable and tentative, based on observation, based on empirical data, problem solving, scientific method, facts, principles

and laws as big as, how to know and explain the nature, and how the scientist work for 77.59%, the percentage of female grade 3 students 77.73%.

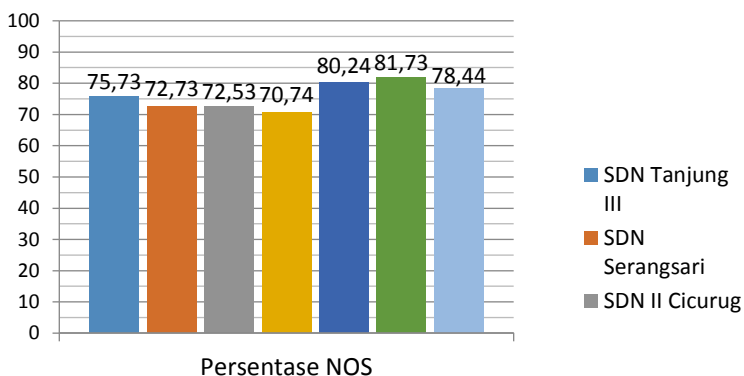


Figure 6. Comparison of Percentage NOS between the School

From Figure 6 it is known that the percentage of students in SDN Tanjung III who understand the science lesson with 7 indicators namely; durable and tentative, based on observation, based on empirical data, problem solving, scientific method, in the form of facts, principles and laws as big as, how to know and explain nature, and how the

work of scientists is 75.73%, the percentage of students in SDN Serangsari is 732 , 73%, the percentage of students in SDN II Cicurug is 70,74%, the percentage of students in SDN II Ketabang is 80,24%, the percentage of students in SDN Gayungan is 81,73%, and the percentage of students in SDN Tenggilis 78.44%.

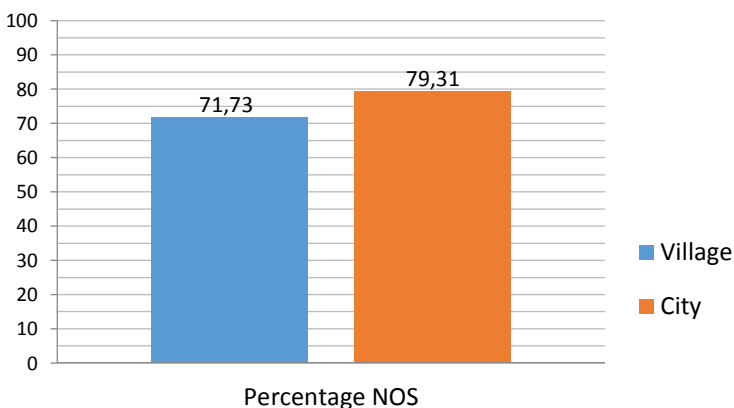


Figure 7. Comparison of Percentage of NOS between Urban and Rural Schools



From Figure 7 it is known that the percentage of students in schools in rural areas who understand the science lesson with 7 indicators namely; durable and tentative, based on observation, based on empirical data, problem solving, scientific method, facts, principles and laws as big as, how to know and explain nature, and how scientists work 71.73% and percentage of students in schools in urban areas amounted to 79.31%.

## **B. DISCUS**

From the questionnaire distributed to the respondents, then performed data processing by arranging the data table then calculated to obtain the average percentage data of each NOS Component according to the classification of respondents. Respondents were grouped by gender, male and female, classes, 3, 4, 5, and 6, the school, which consists of six schools and school location are towns and villages.

### **1. Comparison Understanding Students Natural Science Itself L battery male and female in All Schools**

From the results of data analysis known that the percentage of male students who understand the science lessons with 7 indicators, namely; durable and tentative, based on observation, based on empirical data, problem solving, scientific method, facts, principles and laws as big as, how to know and explain nature, and

how scientists work 75.84%. While the percentage of female students who understand the science lessons with 7 indicator of 75.88%. This means that the results of the data show that the understanding of science learning in male students is lower than female, but the difference is not too high only 0.04%.

From these data it can be concluded that the difference in students' understanding of the nature of science in terms of sexes do not differ much. This line of research conducted by Wulandari [16] that there was no significant difference in ability between boys and girls in terms of their ability. This is in line with the opinions and research of Debacker & Nelson [17], that there is no difference in motivation and learning outcomes Natural Science in students when viewed from sex, this will have implications on the absence of a significant difference between male students and female students in understanding the nature of science.

While there are some experts and research results stating that there are states that between men and women there are differences in the ability of learning outcomes, especially in math and science. Tsado, Gipps, and O'Connor [18] states that on some subjects in school boys and girls in the achievement experience the difference, especially math and science. This is because of the different physical conditions between men and women. Sasser [19] explains that the brains of men and women





there are differences in the dense nerve bundles connect the two hemispheres or Corpus callosum that women are superior in multitasking such as seeing, hearing, and recorded simultaneously. But according to William and Jacobson [20] stated at the beginning of primary education there are no differences science learning achievements between men and women, the difference is only on the topic of material involving the calculation. This is corroborated by Reese et al [21] which states in terms of divergent thinking ability does not show significant differences associated with gender differences.

## **2. Comparison understanding on Itself Natural Science Judging Students of Classes in All School**

Percentage of number of 5th grade students who answered about; durable and tentative equal to 74,7%, based on observation 75,2%, based on empirical data equal to 71,9%, problem solving with scientific method equal to 69,1%, facts, principle and law equal to 74,1% how to know and explain the nature of 74.5%, the way scientists work by 79.9%. Percentage of number of Grade 6 students who answered about; durable and tentative 80,0%, based on observation 80,4%, based on empirical data equal to 74,1%, problem solving with scientific method 72,8%, facts, principle and law equal to 75,3% how to identify and explain the nature of 78.5%, way scientists work at 82.6%. From Figure

4 above in mind that the percentage of grade 3 students who understand the science lessons with 7 indicators, namely; durable and tentative, based on observation, based on empirical data, problem solving, scientific method, in the form of facts, principles and laws as big as, how to know and explain nature, and how the scientist work for 75.01%. percentage of 4th graders at 76.88%, the percentage of Grade 5 student at 74.2%, and the percentage of Grade 6 students amounted to 77.67%.

Based on the results obtained then we can know that the average grade 3 students who understand the science lesson of 75.01%, grade 4 average of 76.88%, grade 5 average of 74.20%. While grade 6 average of 77.67%. This means that the results of the data show that the lowest understanding of science learning is found in grade 5 students of 74.20% while the highest is in grade 6.

This is because in grade 5 for problem solving indicator with scientific method only get percentage equal to 69,1% whereas the highest percentage that is equal to 79,9% is on indicator of work of scientist. In grade 6 problem solving with scientific method is the lowest percentage that is equal to 72.84% the result is higher than class 5. While for the indicator of scientific work in grade 6 the percentage of 82.6% higher than class 5. In the class 6 at the age of 11-12 years of thinking they are partly able to think abstractly, grade 6 students have been



able to conserve the logic of classes and relations knowledge of the numbers associated with the real thinking Piaget [22]. This is reinforced by the opinions and research results Radjavi [23] that some of the materials science the higher class the more abstract, therefore, to grade 6 because they're used to things that are abstract, so that when given things abstracts related to the nature of science they are familiar. However, no research results of Guyon, Maurin, & McNally [24] that there was no significant difference in the ability, if their age is not too significant. That is the reason why there is a decrease in understanding in grade 5 students, when compared with other classes.

### **3. Understanding comparison Itself Natural Science Every Class and Between Men and Women of all schools**

From the results of the questionnaire calculation of the nature of science classified into the class and also classified by sex obtained data as follows: From Figure 5 it is known that the percentage of 3rd graders who understand the science lesson with 7 indicators are; durable and tentative, based on observation, based on empirical data, problem solving, scientific method, facts, principles and laws as big as, how to know and explain nature, and how scientists work 74.25%, the percentage of female students 75.75%.

Percentage of 4th graders who understand science lesson with 7 indicators; durable and tentative, based on observation, based on empirical data, problem solving, scientific method, facts, principles and laws as big as, how to know and explain nature, and how scientists work 76.68%, the percentage of students of grade 3 of women 77.02%.

Percentage of the number of 5th graders who understand the science lesson with 7 indicators namely; durable and tentative, based on observations, based on empirical data, problem solving, scientific method, in the form of facts, principles and laws of, how to identify and explain the nature and workings of scientists at 75.69%, the percentage of female students in grade 3 at 72.73%. Percentage of the number of 6th grade male students who understand the science lesson with 7 indicators namely; durable and tentative, based on observation, based on empirical data, problem solving, scientific method, facts, principles and laws as big as, how to know and explain the nature, and how the scientist work for 77.59%, the percentage of female grade 3 students 77.73%.

Based on the results obtained then we can know that the average grade 3 female students who understand the science lesson of 75.75%, male students grade 3 average of 74.25% with. Fourth grade female students who understood the average science lesson 77.02%, male



students grade 4 average of 76.68%. 5th grade female students who understand the science lesson average of 72.73%, 5th grade boys average 75.69%. . While female students grade 6 the average of 77.73%, male students grade 6 the average of 77.59%. This means that the results of the data show that the lowest understanding of science learning is found in 5th grade female students that is 72.73% while the highest is found in 6th grade female students of 77.73. When viewed from the age factor then this may happen because there are differences in cognitive abilities due to their chronological age. This is reinforced by the opinions and research of Fathman [25] which states that there is a significant relationship in terms of the ability to speak in terms of age, although it has no direct effect but no contribution in terms of language skills to understand the nature of science. This is in line with the results of the study Ayotola & Adedeji [26] that there is a significant relationship between age with students' mathematical ability and the ability of other understandings. But if you look at the decline of grade 4 to grade 5, in this case supported by the opinion and the results of Allaire & Marsiske [27] which states that if the chronological age is not too far adrift, it will not be a significant difference in terms of their understanding. This is supported by Meyer, Ray, & Middlemiss [28] which states that a causal relationship between chronological age and

mental age as long as there is not too far adrift of the difference is not significant.

From the graph can also be concluded that the greatest and most small alike female, but of a different class, it can occur due to differences in gender did not significantly affect the ability of understanding the nature of science. Some studies show that the achievement of student achievement, turned out ta also there is a difference. Women almost always have lower academic achievement than men. One study conducted by Meighan [29] on the results of the General Certificate of Education (GCE) in the United States, it produces the data. First, until the age of 11 years, men and women generally have relative achievement levels are not much different. Second , comparison the number of boys and girls who received grades of "A", on some subjects, show the results: Physics: 6: 1; Mathematics: 4: 1; Chemistry: 3: 1; Biology: 9: 8; Drawing: 200: 1; Language: 1: 2. More specifically it sought to see the gender gap between women and men in junior high / high school in the acquisition of learning achievement.

Several research studies have found that gender differences affect the learning of mathematics occurred during primary school age [30]. Other studies stated that the influence of gender differences can be observed in junior high school students Benbow [31] and high school students [32] . In high school , the gap in



gender-bent on men found more common, especially in the realm of problem solving and application. However, these differences are small and gender differences can also be reduced over time.

#### **4. Comparison Understanding the essence of science among school**

From the calculation of the questionnaire about the nature of science classified into the school, which consists of four schools located in West Java, precisely in Sukabumi and Subang, as well as schools in East Java, precisely in the city of Surabaya, the obtained data in the form of graph as follows:

From Figure 6 note that the percentage of students at SDN Tanjung III who understand science lessons with 7 indicators, namely; durable and tentative, based on observations, based on empirical data, problem solving, scientific method, in the form of facts, principles and laws of, how to identify and explain the nature and workings of scientists at 75.73%, the percentage of students at SDN Serangsari of 732 , 73%, the percentage of students at SDN II Cicurug amounted to 70.74% , the percentage of students at SDN II Ketabang amounted to 80.24%, the percentage of students at SDN Gayungan 81.73%, and the percentage of students at SDN Tenggilis of 78.44% . From the table can be obtained information that the schools get the smallest value dalam SDN Cicurug III arriving in the

countryside is precisely in The Kidul Street No. 71 district. Cicurug Sukabumi, when viewed from the profile of the school in general we concluded that most of the eight National Education Standards have not been met, the students do not get additional lessons, and the majority of parents were at the level of the lower middle, so that it affects the ability Understand the nature Natural Science comprehensively.

Schools that earn a percentage of understanding the nature of the highest Natural Science there SDN Gayungan, when seen from the school's profile authors to conclude that the school is located on Jl. Gayungan VII No.17-21 are urban areas with dense population, eight National Education Standards have been met, the majority of students get additional lessons both individually and collectively, as well as the income of the average parents of middle and upper, so it is very influential the ability of the comprehensive Understand the nature of science. This was confirmed by research from Anang Yuliawan [33] that the infrastructure is very influential to student motivation. This is supported by the results of Nurmalia [34] with the title Influence of Facilities and Learning Environment Student to Student Achievement Class XI IPS MAN 1 Malang that the results showed that no partial effect between facilities on student achievement class XI IPS MAN 1 Malang, no partial effect



between the learning environment on student achievement class XI IPS MAN 1 Malang, and no simultaneous effect between the facility and the learning environment of students in class XI IPS MAN 1 Malang. While the research conducted by Ginting [35] entitled Strengthening of Reading, School of Environmental Facilities and Basic Skills Indonesian Reading and Reading Interest Pupils whose results showed the following: provision of facilities and infrastructure is good or fulfilled accurately and quickly provide a strong influence for CV 5 Continent employee commitment in carrying out its performance. It is similar to a study conducted Mustamid [36] with the title Influence Utilization Learning Facilities in School and Motivation Study on Learning Achievement Class XI at *SMK Negeri 1* Bojonegoro whose study is the use of school facilities and the motivation to have a significant impact on learning achievement ,It is similar to a study conducted Mustamid [37] with the title Influence Utilization Learning Facilities in School and Motivation Study on Learning Achievement Class XI at *SMK Negeri 1* Bojonegoro whose study is the use of school facilities and the motivation to have a significant impact on learning achievement ,It is similar to a study conducted Mustamid [38] with the title Influence Utilization Learning Facilities in School and Motivation Study on Learning Achievement Class XI at

*SMK Negeri 1* Bojonegoro whose study is the use of school facilities and the motivation to have a significant impact on learning achievement ,

### **5. Understanding of Science Itself comparison Schools in the City and Village**

From the calculation of the questionnaire about the nature of science classified into the school in the village and the city, which consists of four schools located in West Java, precisely in Sukabumi and Subang Regency that are classified in rural schools, and schools located in East Java, precisely in the city of Surabaya as urban schools, the obtained data in graphical form as follows: From Figure 7 note that the percentage of students in schools in the area one who understands the science lessons with 7 indicators, namely; durable and tentative, based on observations, based on empirical data, problem solving, scientific method, in the form of facts, principles and laws of, how to identify and explain the nature and workings of scientists at 71.73% and the percentage of students in schools in the city amounting to 79.31%. Based on the results obtained, we know that on average students who attend school in the city who understand the science lessons at 79.31%, while the region of the village of the average of 71.73%. This means that the results of the data shows that the understanding of





science teaching in schools in urban areas is higher than schools in rural areas.

This is because a primary school in the city of his learning process is more effective because it supported infrastructure is more complete. Teacher quality is better. As well as the support of stakeholders well. It s According Suharsimi Arikunto [39], "The facilities are everything that can facilitate and expedite the implementation of a business". The learning facilities are everything that can facilitate and accelerate learning. Students who have a comprehensive learning facility will be easier and more enthusiasm in learning, in order to achieve optimal learning results. Based on the results of Uswatun Hasanah [40] Environmental residence significant effect on learning achievement , This is reinforced by the results of Sri Nadia Padmini [41] entitled "Effects of Learning facilities Learning Motivation and Its Implication of Student Learning Achievement Force Indonesian education university Year 2008". From the results of research show using t-test calculation wherein learning facility (X) positive and significant impact on motivation to learn (Z) with the level of determination of 14.5% and the rest (85.5%) influenced by other factors, then the motivation to learn (Z) positive and significant impact on learning achievement (Y) with the level of determination of 4% and the rest (96%) are influenced by other

factors, as well as learning facilities (X) negative and no significant effect on achievement (Z) with the level of determination by 0.6% and the rest (99,4%) influenced by other factors. From the results research and the above discussion it can be concluded that the determinants of understanding the nature of science is actually not from the location of the school, will be but the fulfillment of the National Education Standard. If the eight National Education Standards fulfilled, then certainly the learning achievement will increase.

## **I. CONCLUSION**

From the discussion, it can be concluded as follows: 1) The difference between the students' understanding of men and women to the nature of science did not differ significantly at only 0.04% ,. 2) The difference between classes understanding of the nature of science can be obtained information that Grade 6 students get the most good percentage, it can be associated with the stage of development of their chronological age who take effect to their mental age; 3) The difference between classes understanding of the nature of science and the views also of gender, it can be concluded that the age effect on different understandings of the nature of science, but the sexes no effect means; 4) The difference in understanding between the schools to the nature of Natural Science can be obtained information that a school with complete facilities will have an





effect on student achievement in this understanding of the nature of science, and 5) the gap of understanding between the location of the school to the nature of science does not mean that the location of the school matter, but influential the meeting eight national education standards, the quality of students is shown by the results of further understanding of the nature of Natural Science good anyway. From some of these factors will be the basis for developing character-based science learning and the approach is scientific.

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# MANAGEMENT CURRICULUM FOR BUILDING EDUCATION

Saiful Almujab<sup>1</sup>, Yudho Ramafrizal<sup>2</sup>

Program Studi Pendidikan Ekonomi FKIP Pasundan University, Bandung, Indonesia  
saifulalmujab@unpas.ac.id

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**Abstract.** From the beginning of the old order government currently, the education curriculum in Indonesia has experienced ten times the curriculum changes. The curriculum changes are expecting development towards better education management. However, the translation of the UNDP (United National Development Program) 2015 Indonesia is still in the order of 113 from 188 countries far from neighboring countries, especially Malaysia and Singapore. In this case, curriculum management becomes very important, comprehensive, systemic, and systematic can, of course, accelerate the achievement of educational goals. This article is intended to provide an overview of the impact of improving the quality of education in Indonesia. The method used in this research is descriptive analysis research. The analysis done by examining the theories of curriculum management and how to apply it in the world of education, especially education in Indonesia. Once events in Indonesia are rarely done through research and full of political elements

**Keyword:** Curriculum Management, Education in Indonesia

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## I. INTRODUCTION

Curriculum is one of the most components in an education system (Widyaiswara, 2016). The changing and evolving curriculum shows that the education system is dynamic, the spirit of change is needed so that the education system is not in stagnation. The curriculum is structured to serve as a guide or reference for teachers, principals, parents and society in general. As an institution, schools certainly have specific rights and responsibilities. Schools are required to teach the knowledge and skills considered important to the community. Schools should have clear objectives and criteria to judge that students have achieved goals. Each differs in preparing students as

experts, workers, consumers, or perhaps the dominant societal institutions military, corporate, government, and civilian life. Schwebel (2003) places the schools into three categories: the elite of private and public schools that provide leaders for all fields; schools that prepare many middle-level workers; and work schools for marginal populations where they will learn how to act in situations, to comply with the rules and fulfill the task. It depends on how teachers can manage the learning system in the classroom. For that, the teacher is a mediator between the beliefs and intentions of the students and the norms and standards represented by the curriculum. Reid (2003) have





shown how the curriculum has historically been an institutionalized learning.

Theodore R.Sizer in McCann (2013) believes restructuring the school must meet the following principles:

- 1) The focus is on helping students learn to use their minds well.
- 2) Students master a limited number of essential skills and area of knowledge; "less is more."
- 3) Objectives school apply to all students.
- 4) Teaching and learning are personalized.
- 5) The practical metaphor of the school is students as workers and teachers as a coach.
- 6) The graduation is awarded at the end of the success of the demonstration of mastery, exhibitions.
- 7) Expenses do not exceed 80 students per teacher (high school), and the cost does not exceed 19% of the more traditional school.
- 8) Students have the opportunity to discover and build meaning from their own experiences.
- 9) Primary schools have no age grouping, and families are vital members of the school community.

For that, the focus of the discussion is where the curriculum system in Indonesia meets the principles of reconstruction. As we know, Indonesia currently uses the 2013 curriculum system. The change was made due to the many problems in the KTSP curriculum, the inconsistency between the KTSP intent and the basic competencies it

mandated to make teachers reluctant to change their teaching and assessment practices that impact on education stagnation (Sulfasyah, Haig, & Pugh, 2015). Conceptually draft curriculum in 2013 aspired to deliver the next generation of comprehensive intelligent smart by not only intellectual but also emotionally intelligent, social and spiritual. In this case, the curriculum in 2013 became one of the solutions to face the changing times that will be put competencies synergized with character and values will be better than the previous curriculum. But in Muryani and Sulistari (2015) suggested, that happened just lack unfamiliarity of teachers to the urgency of curriculum development has been adverse affecting the ability of teachers to develop learning process by the purpose of curriculum development. Not to mention the rapid changes in the curriculum and socialized less well lead teachers in designing learning confused right (Mayasari, 2014). Different with the new Zealand, curriculum changes become relevant and meaningful for student learning (Steet, 2006)

From old order government to the current curriculum in Indonesia has undergone ten changes in the curriculum. The curriculum changes are looking forward to better education management. However, the changes made have not shown significant results, from the report of UNDP (United National Development Program) 2015 Indonesia is still in the order of 113 out of 188 countries far behind from neighboring countries, especially Malaysia and Singapore.





Therefore, it important to see how the curriculum management in Indonesia is in developing the curriculum.

## **II. METHOD**

This research is non-interactive inquiry, which is a study based on document analysis by collecting, identifying, analyzing, and synthesizing data, to give interpretation to concepts, policies, events that are directly or indirectly observable. Refers to the purpose of research, the authors use literature study research methods. Study library is an examination of all books, essays, and writings on a field of science, topics, symptoms, or events. Thus, the literature study is every effort conducted by researchers to gather information relevant or issue that will be or are being studied. According Pohan Prastowo (2012) of these activities (preparation of literature review) aims to collect scientific data and information, has been documented. This study was conducted with the aim of avoiding the occurrence of repetition, imitation, and plagiarism.

Moreover, Nazir (2009) says that the study of literature is a step that important. After a researcher sets the research topic, then proceed with conducting to the theory. In searching theory, researchers collect as much information from various sources of literature related. Sources can be obtained from books, journals, magazines, research results (theses and dissertations), and other appropriate sources (Internet, newspapers, and so on).

Related methods used in research, after the researchers obtained the material the relevant literature, then the next step is to arrange on a regular basis and classify them for use in research. Researchers also follow the rule of principle which applies in a literary study that includes general processes such as systematic identification of theories, literature discovery, and document analysis information related to the research topic.

## **III. RESULTS**

### **A. Role in Curriculum Restructuring**

Technology systems lay headmaster at the forefront of designing a curriculum plan that is consistent with state goals. When they make a curriculum plan to offer school principals are encouraged to look for ways to expand what teachers already do in the classroom with the idea to see how teachers can organize and manage classes. The headmaster forms a mental picture of what will be achieved by the students and how they might look in a variety of fields, including setting the size of the particular student's performance according with the intention of reformers (McNeil, 2005).

Principals and teachers who will decide to take and translate their curriculum plan into practice. Principals provide support as teachers to experiment with new ways to transform classroom practice and arranged for a group of teachers to meet regularly to compare notes and devise new strategy (McNeil, 2005).



Under Emancipation, principals and teachers have the freedom to generate their curriculum vision from how to create a moral to achieve goals set by others. Teachers and principals to explore the regularity of school (the policy level, scheduling, books, field trips, assemblies, and the like) to see their consistency (McNeil, 2005).

Teachers are a vital curriculum policy maker. Even on the subject, it seems clear as basic arithmetic, this teacher is not just implementing the policy. Teachers have a lot of freedom to use their ideas about how the school should consider even when subjected to external pressure and an example of the state standards and curriculum guided books. In deciding what type of curriculum content will students get the teacher took a political role.

In this approach, the school held a meeting to describe the practices or policies, interpret it, and give the possible consequences. Typically, the alternative was introduced by what the ideal. Under the joint leadership, the leadership role is to accommodate creativity school device, not control it. Rational decisions by consensus and not in a leadership position or popularity of a particular teacher (McNeil, 2005).

Unlike the curriculum developed in Indonesia. In Indonesia, curriculum development begins with government policy on the need for curriculum change. In other words, the development of curriculum in Indonesia is carried out with a *top-down approach*. Curriculum change in Indonesia is very synonymous with the political system, so there is a

curse in the community "instead of the minister of change of curriculum". This is not good for the development of education in Indonesia. One of the requirements of curriculum development should be the continuity of the previous curriculum (Sinambela,2010).

Curriculum development is currently used as a refinement of the previous curriculum. But these curriculum changes tend to pursue the target of the National Medium-Term Development Plan (2010-2014) in the education sector. Curriculum SBC eliminated as the previous curriculum because votes have failed to bring about a better state. Some cases such as overcrowded material, uniform textbooks, weak teacher skills, moral issues, and a diversity of education management systems deviated from curricula are problems that occur in the 2013 curriculum (Alawiyah, 2013).

## **B. Administrative Settings**

In organizing the curriculum, administrators and staff at the school decide how to group students, organize time for each subject, and how to teach. Due to changes in school functions, each of these factors requires frequent changes.

### **1. Stratification of students**

Some schools in Indonesia still preserve the efforts of discrimination against minority students and poor families by directing them towards the path of education is lower. Oakes (1985) recommend measures set curriculum to accommodate individual differences and ensure the same quality are as follows:



- a. Creates a core curriculum where all students will experience even if different students take different approaches to the same material.
- b. Eliminates common pathways that are faulted for lack of challenge and replaces them with a rigorous core curriculum that will prepare students for lectures or technical training.
- c. Push with instruction in the classroom to implement learning in small groups with students at different levels of learning together and help each other.

## 2. Pattern of staffing and scheduling

To improve interdisciplinary student, can be done by *team teaching*. Where a team of four specialists from the fields specialization depending, e.g. languages, mathematics, social studies, and science. Each specialist serves as a resource for her subject area, then do the planning and teaching materials. The advantage of this arrangement is easier correlation and teachers are able to attend to each student (McNeil, 2005).

## 3. Additional personnel

Peer tutoring students, adult volunteers, and professionals allow teachers to serve student more effectively and efficiently. The cross-age learning guidance, where older students are a younger tutor, is beneficial to both and has become very popular throughout the country. Sixth graders, for example, may teach fourth grade six classes if teachers believe the tutors need to learn and practice and classroom four teachers

want her students to learn (McNeil, 2005).

### a. Non-grading

Non-grading occurs when content and experience are offered based on interests and abilities, not limited to a particular class level. Lack of grade levels allows students to progress at different levels and take advanced or additional courses (McNeil, 2005).

### b. Amenities

Ideally, buildings, parks, equipment, and equipment are appropriate for educational purposes and the means by which teachers and students achieve this goal. The facility for self-study means students have a place to work and a place to use the specific materials of the subject matter they are learning. There may be a need for space in which to view movies, read, practice music, and work with metal and clay. So the class wall does not need to be defined as the boundaries of the learning environment (McNeil, 2005).

## C. Evaluate Curriculum

In a general sense, curriculum evaluation is an attempt to answer two questions: (1) Are learning opportunities, programs, lessons, and activities planned when developed and developed produce the desired outcomes? (2) How can the curriculum achievement be best improved? Common questions and ways of responding give slightly different meanings at the macro level (for example, evaluating city-wide results from some alternative reading programs) than the micro level (evaluating the effect of teachers' teaching plans to achieve the goals of



a lesson). Classroom teachers often have an additional set of evaluation questions to guide them in making informed decisions about individuals:

- a) Placement. At the level of student learning opportunities Which should be placed with the intent to spur not frustrating?
- b) Mastery. Has the student gained enough ability to succeed in the next level planned?
- c) Diagnosis. What particular hardship is the learner experiencing?

Evaluations should provide useful information for decision-makers, and evaluation models should be selected with the help provided by the type of decision made. Evaluators should not allow the idea of what should happen in an evaluation without error to try to avoid it; they should remember that there is no evaluation without error. In times of frustrations such as student absences or failure to provide tests, they should remember that curriculum evaluators are only responsible for completing the best possible information based on the situation.

#### 1. Consensus Model (Evaluation Techniques and Traditional)

In a general sense, a curriculum evaluation for a systematic expert is an attempt to highlight the following two questions:

- Do plans, opportunities, lessons, programs, lessons, and activities as development and development can achieve the desired results?
- How can the curriculum provide the best upgrading ability?

#### 1) Decision and Evaluation Techniques

Formative evaluation does not require all students to answer the same questions because assessment of formative evaluation is done to improve an existing program. Therefore, assessments are provided in detail providing specific information to guide curriculum developers. So, no matter how many possible questions to ask to be given, it should be different. Summative assessment is conducted to assess the effect of the overall program. Below are some of the most important tips are as follows.

- a) Look for data on student changes as a result of learning.
- b) Look at the results of different grades and plan the learning effects as long as they are separate.
- c) Identify which aspects of learning of the desired revision.
- d) A collection of evidence in the development of the curriculum, while learning is still changing.
- e) Try to discover how learning can produce the student's effects and what factors influence their effectiveness.
- f) During the experimental level, formal teacher reports are used to examine students' attitudes in considering their lesson aspects.
- g) Create more systematic research.
- h) Create a learning event that takes place in the classroom, also use the size of the skills and attitudes to state the changes to the student.
- i) Observe some of the consequences of new program sizes that far outweigh the contents of itself (attitudes, general knowledge,



more learning talents) (McNeil, 2005)

## 2) Objectives of Traditional Evaluation

One of the objectives of the evaluation is to decide the value of curriculum intervention in a learning activity. In this design, a series is taken in both, before and after the introduction.

A significant difference in the students and after intervention actions that may be taken as evidence that the intervention effect positive. Another evaluation is to decide value Curriculum Planning

Systematicists assess a curriculum design by evaluating: 1. Benefits of curriculum design goals; 2. Quality of curriculum design plans; 3. The level of plan that can be brought; and 4. Value results. According to Dan Stufflebeam and others, the description of each model is CIPP (context, input, process, product), that is, in the context assessment stage, the assessment focuses on the definition of the environment, describes the real wants and circumstances, and identifies the problem. Finally, an evaluation is done to show the effect of selected strategies on the curriculum (McNeil, 2005).

## 2. Pluralistic Model (Humanistic and Social Reconstruction Evaluation)

Evaluation models focus on human and social development which has had a strong influence. The pluralistic model of assessment by cultural and social reconstruction experts is a permanently limited, permanent influence. Plural

procedures are often also used in reasearch and applied technology.

### 1) Responsive Evaluation

Robert E. Stake is one of the first assessors to propose the plural expert's opinion that the appraiser should know the standard criteria being employed and who holds them. As a pluralist, stakeholders believe that it takes a sensitivity to feel this attention with the most basic research. According to him, the assessment is to find the client and what participation desired from the assessment program (McNeil, 2005). Stake emphasizes a particular object precisely in comparison with a systematic expert because the stake hopes to portray the whole purpose, even those not described regarding student learning (McNeil, 2005).

### 2) Connoisseurship model

Elliot W. Eisner proposed evaluation model through one of the procedures of ownership, that criticism is the education in which an appraiser asks you for sure about his key to the question: What has happened during the school year in a school? What is the key to the incident? How did they come? How is participation between teacher and student? What is the result of all that? How can an event be strengthened? What incidents might the children learn to learn? Another means to show the richness of a program, according to Eisner, is through film, video recording, photography, and recording of questions and answers between teachers and students.

### 3) Evaluation as a critical Inquiry

Kenneth Sirotnik is an expert pluralist believe that the vote on the





constitution requires a quantity perspective knowledge with people in the school. According to him, assessment is a thorough self-examination, a process of investigation that is critical. A critical inquiry is a dialect that uses the following example questions:

- What does X mean? (in any curriculum use)
- How did it happen?
- Whose desire is fulfilled and not in that way?
- What information and knowledge do we need and need?
- After getting the information needed, is this what we want?
- What are we going to do with all these things? (what actions do we need?)

In evaluations made through critical inquiry, moral questions are enhanced primarily about the objectives provided by governments and local governments and the efforts humans need to achieve them, to the exclusion of why they are accomplished at a high or low level.

#### **IV. CONCLUSION**

The changing and evolving curriculum shows that the education system is dynamic, the spirit of change is needed so that the education system is not in stagnation. In curriculum development efforts, development implementation should involve the frontline school components to design curriculum plans that are consistent with the country's objectives. Schools form a mental picture of what students will achieve and how they may look in

many areas, including setting specific student performance measures by the reformer's intent. Unlike the curriculum developed in Indonesia. In Indonesia, curriculum development begins with government policy on the need for curriculum change. In other words, the development of curriculum in Indonesia is carried out with a top-down approach. In the other word, Curriculum change in Indonesia is very synonymous with the political system, so there is a curse in the community "instead of the minister of change of curriculum". The results show that the management of curriculum in Indonesia is rarely done through research and tend to be full of political elements.

#### **V. ACKNOWLEDGMENT**

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# **THE ROLE OF INDONESIAN LANGUAGE IN SCIENCE AND TECHNOLOGY DEVELOPMENT, GLOBALIZATION ERA, AND IN DEALING MEA (ASEAN ECONOMIC COMMUNITY 2017)**

Dheni Harmaen

Program Studi Pendidikan Bahasa dan Sastra Indonesia FKIP Pasundan University,  
Bandung, Indonesia  
dheniharmaen@unpas.ac.id

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**Abstract.** The development of Science and Technology and the Arts during the era of globalization, coupled with the inclusion of the Asean Economic Community (AEC), would greatly affect the influence on all aspects of human life bound together by culture. The purpose of this discussion is to provide insights that language as part of the cultural elements that have a role as a communication tool in the face of these conditions, including the role of Indonesian Language in the face of the three events. By using the language, the information can be understood and accepted based on its goals and objectives. In addition, the language is also used to convey something, an idea, a mindset, in order to others can understand what we want. Without any language (including Indonesian), science and technology probably cannot grow and thrive. Besides, Indonesian, in the cultural structure, has a position, function, and dual role as the roots and cultural products that also functions as a means of thinking and means of supporting the growth and development of science and technology. Without that similar role of language, science and technology will be hardly able to develop. The implication in the development of reasoning power is to make the language as an infrastructure of modern thinking. The advantages being humans compared with other creatures not only lies in the excess of mind, but also in language skills. Without the ability to speak, human beings can not develop their culture because without the ability to speak, there is no way to pass on the cultural values from one to the next generation. In addition, without the ability to speak, human can not think systematically and regularly.

**Keywords:** Language, Science, Technology, Role and Function

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## **I. INTRODUCTION**

The development of science, technology and art in the era of globalization, and in facing the Asean Economic Community (AEC) 2016 can not avoid the role and function of

language as a communication tool. By using a language all can understand the particular intention and purpose. Besides, the language is also used to convey something, an idea, a mindset, in order to others can understand what we want. Without



any language (including Indonesian) science and technology can not grow and thrive. In addition, Indonesian, in the cultural structure, has a position, function, and dual role as the roots and cultural products that also functions as a means of thinking and means of supporting the growth and development of science and technology. Without that similar role of language, science and technology will be hardly able to develop. The implication in the development of reasoning power is to make the language as an infrastructure of modern thinking (1). The advantages being humans compared with other creatures not only lies in the excess of mind, but also in language skills. Without the ability to speak, human beings can not develop their culture because without the ability to speak, there is no way to pass on the cultural values from one to the next generation. In addition, without the ability to speak, human can not think systematically and regularly (2).

What is about the Indonesian position during the era of globalization that characterized by the powerful flow of communication? It demanded the policy makers in the field of language to work harder to have further refine and improve all sectors of transportation with language development problems. As noted by Featherston, globalization penetrates cultural boundaries through a comprehensive range of air travel, the extent of communication, and the increasing tourists to various countries (3). So does with MEA. Dr. Lim Hong Hin on the sidelines of a speech, at a meeting of the Asean

Economic Community in 2015, said, efforts towards an integrated economic community actually began in 1992. We are very happy to hear that based on records that are used to monitor different progress in various countries, it turns out all committed to the integration of Asean, and execute everything well, compliance with all rules, including the use of language as an identity of their respective countries (4)

Seeing the development of Indonesian domestic quite rapidly, overseas development is very encouraging. In his recent data suggests at least 52 foreign countries have opened the program Indonesian (Indonesian Language Studies). In fact, this development will be increased after the formation of the National Association of Indonesian Group (BAKB) speakers of foreign citizens in Bandung in 1999 (1,5). Indonesian development is increasingly rapid, however the opportunities and challenges to Indonesian become greater. Various Indonesian opportunities in this era of globalization, such as the widespread support from various parties, including the role of the mass media. Meanwhile, the challenge can be categorized into two, namely internal challenges and external challenges. Internal challenges in the form of negative influence of regional languages in the form of vocabulary, word formation and sentence structure. External challenge comes from the negative influence of foreign languages (especially English) in the form of the entry of the vocabulary without the process of establishing the



terms and use of the English sentence structure (absorption) or of a functional language of each science.

The most prominent phenomenon happening in this period is the process of globalization. The process of change is called by the reviewers the Asean Economic Community as the third wave, after the first wave lasts (agriculture) and the second wave (industrial). Such changes also cause a shift of power from the center of power rooted in the soil, and then to the capital, then in the third wave, the mastery of science and technology information. The process of globalization is more feared than to be understood, then to be anticipated wisely and carefully.

By excessive fear and anxiety, the anticipation tends to be defensive, building blockhouses. The era of globalization will touch all aspects of life, including language. The global language increasingly used by all the nations of the world is English, which is more than one billion users. However, as the other areas of life. Paradoxes will occur in the life of various components, including the language. English, for example, although the greater speaker is as a second language, the people of a country will be stronger in defending mother tongue. In Iceland, a small country in Europe, which had a population of about 250.000 people, although they communicate daily using English as their second language, the country still retains the purity of first language of the influence of the English language (6) In Uzbekistan (Guebec), before now,

the rules in the state require the use of the French language for all signage, now it is replaced by the mother language. Likewise, Russia fractions countries such as Ukraine, Lithuania, Estonia (a breakaway from Russia) has replaced all nameplates in the countries from the use of the Russian language.

## **II. METHODS**

The design of this study used a qualitative approach. In the qualitative approach, a researcher is also the main instrument of research. The validity of the data and information collected, highly dependent on the expertise, skills, and experience of the characteristics of the field where the research is conducted. Researcher who did a qualitative approach, should really be critical, sensitive, and able to integrate with the community life examined. The techniques used in this study are the observation and in-depth interviews that were conducted on key informants and field notes about the making of the events faced by the researchers in the field.

Case study is a study that uses empirical evidence (not the result of laboratory exsperiments) to prove whether a theory of language can be implemented on a condition or not. Cas studies are defined as research approach to exslore a phenomenon in context by useng data from various sources (7,20). So that the flow of language theory framework are as follows:



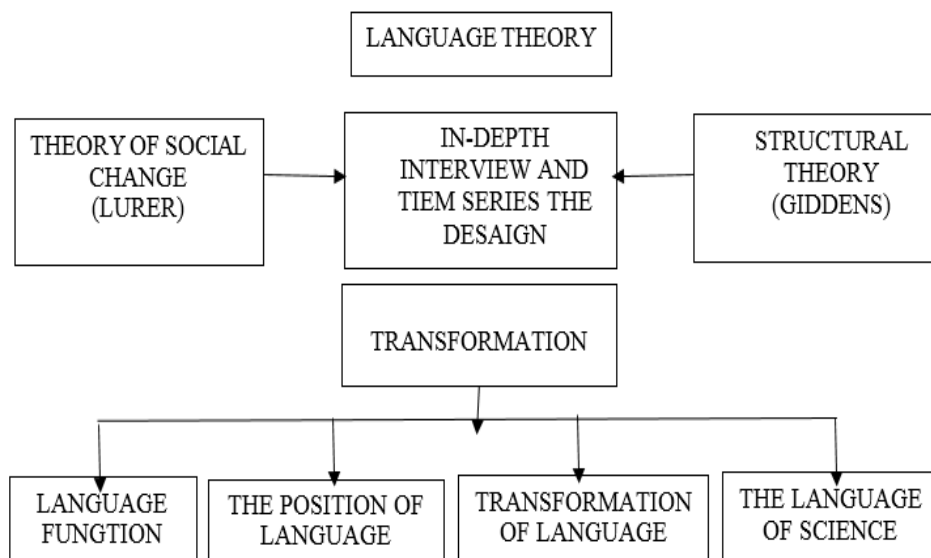


Figure 1 Language Theory

### III. RESULTS AND DISCUSSIONS

Indonesian has a very important position, as stated in the third Pledge Youth Oath, which reads "Our Sons and Daughters of Indonesia to uphold the national language, Indonesian". This means that the Indonesian serves as the national language, his position is above the regional languages. Additionally, in the constitution in 1945, listed in a special chapter (Chapter XV, article: 36) regarding the position of Indonesian stating that the state language is Indonesian. First, Indonesian serves as the national language in accordance with the oath of youth 1928. Secondly, Indonesian serves as the state language in accordance with the constitution in 1945. The rise of globalization

accompanied by the development of science and art (science and technology) in our lives will impact the development and growth of language as a means of supporting the growth and development of culture, science and technology. At the level of the globalization era, the Indonesian people must participate in the world of free competition in the political, economic, and communication (8).

In the position as a national language, Indonesian serves as a). a symbol of national pride. b). a symbol of national identity. c). a means of communication between citizens, between regions, and between cultures, and d). a tool that enables unification the different tribes with each socio-cultural background and language into the unity of the





Indonesian nation. And as the state language position, Indonesian serves as a). the official language of the state b). the language of instruction in education. c). the means of communication on national level for the planning and implementation benefit of development, and. d). the development tools of culture, science and technology (9).

As the official language of the state, the Indonesian language is used in all ceremonies, events, and state activities, either verbally or in writing, including the activities of documents writing and decisions, as well as letters issued by government and other state bodies, also national speeches. As its second function as the state language, the Indonesian language is the language of instruction in educational institutions from kindergarten to university level throughout Indonesia. And the third function as the state language, the Indonesian language is a means of communication on national level for the planning and implementation benefit of development. Finally, in its capacity as the state language, the Indonesian language serves as a national cultural development, science and technology.

Entering the Asean Economic Community which has been launched this year, Indonesian language functions have also increased. Indonesian serves as a language of mass media, printed and electronic mass media, whether visual, audio, or audio-visual must use the Indonesian language. The mass media become the foundation of in spreading Indonesian language in a good and

appropriate way. In its capacity as a source of enrichment of the local languages, Indonesian has an extremely important role.

Language is a means of communication between members of the public in the form of a symbol of the sound produced by the human vocal organs. Perhaps there is an objection by saying that the language is not the only tool for communicating (10). They show that two people or parties to a communication by using certain methods that have been agreed. Paintings, smoke from the fire, the sound of a drum or casks and so on. But they have to recognize also that when compared with the language, all the means of communication earlier contains many shortcomings. States that in daily communication, one of the most commonly used tools is the language, both spoken language and written language. So close we are to the language, mainly Indonesian, so no need to explore and learn the Indonesian language further. As a result, as language users, Indonesian do not have competence in using the language (11)

To daily communication, one of the most commonly used tools is the language, both spoken language and written language. So close we are to the language, mainly Indonesian, so it is not necessary to explore and learn the Indonesian language further. As a result, as language users, Indonesia unskilled people to use the language. An unconscious drawback. The verbal or very practical non-standard communication cause the people are not careful in using





language. As a result, we are experiencing difficulties when using written language or language that is more standardized and well-organized. At the time to communicate to the interests or a more targeted and specific purpose, we tend to be rigid (12). The verbal or very practical non-standard communication cause the people are not careful in using language. As a result, we are experiencing difficulties when using written language or language that is more standardized and well-organized. In order to manipulate the language, we need to know the functions of the other Indonesian, they are:

a) Language as a Tool of Self-Expression.

We chose a different way of speaking to people we respect compared to our friends. At the time of using language as a tool of self-expression, a language user no need to consider or care who the listeners, readers, or the target audience are. He or she uses the language for his or her personal interests. This function is different from the next function, the language as a tool for communicating. As a tool of self-expression, a language openly declares everything that is implied in our mind, at least to proclaim our existence. The elements that encourage the self-expression are: 1) in order to attract others' attention 2) wishes to free ourselves from all the emotional pressures. At the spearhead, the language in children partly evolved as a means to express themselves.

b) Language as a Tool of Communication

Communication is a further consequence of self-expression. Communication will not be perfect when our self expression is not accepted or understood by others. By communicating we learn and inherit our ancestors' achievement, and our contemporary achievement .As a means of communication, language is a formulation channel of our intentions, expressing our feelings, and allowing us to cooperate with fellow citizens. It arranges a wide range of community activities, plan and direct our future (13). When we use language as a communication tool, we already have a specific purpose. We want to be understood by others. We want to convey the idea that can be accepted by others. We want to make others believe to our view. We want to influence others. Furthermore, we want other people to purchase the results of our thinking. So, in this case the reader or listener or the target audience become our primary concern. We use the language by taking into account the interests and needs of our target audience.

c) Language as a Tool of Integration and Social

Adaptation besides the function of language as one of the elements of culture, it also allows humans to utilize their experiences, learn from and take part in these experiences, and learn with others. Community members can only be united efficiently through language. Language as a communication tool, further enables each person to feel the bound by the social group entered, and can do all the social activities as



far as possible to avoid clashes to obtain the highest possible efficiency. It allows integration (assimilation) that is perfect for individuals and their communities (14)

d) Language as a Tool of Social Control

As a means of social control, a language is very effective. This social control can be applied to ourselves or to the public. Various illumination, information, and education delivered through language. Textbooks and instruction books are just the examples of the use of language as a means of control religion or social dak'wah. Religion lecture is an example of the use of language as a means of social control. Furthermore, scientific or political oration is a device of social control. We also often follow a discussion or talk shows on television and radio, public service ads or social services are also the implementation of the language as a means of social control. The role of language as a means of control is an activity of language that gives us a way to gain new insights, new attitudes, behavior and good action. Besides, we learn to listen to other people's views. Another example of the function of language as a means of social control that is very easy to apply is as a tool of anger reducer. Writing is one of very effective ways to relieve our anger. Pour our resentment and anger into written form. Usually, in the end, the anger will gradually disappear and we can see the issues more clearly and calmly (15)

The existence of Indonesian in this era of globalization, the

identity of Indonesian needs to be fostered and promoted by every citizen of Indonesia. This is necessary so that the Indonesian people are not swept away by the influence of foreign cultures that do not match into the language and culture of Indonesia. The influence of sophisticated communication tool must be faced by maintaining the identity of Indonesia. It is all about discipline concerning the national language use, the users of Indonesian should be obedient to all of the rules of Indonesian use in accordance to the circumstances.

The globalization flows unconsciously also affect the use and presence of Indonesian in society. The use of languages in cyberspace, facebook for example, gives a lot of changes to its structure by the Indonesian who allegedly damaging some of the language itself. Indonesian as the national language must be addressed together, including in its teaching. In the global era of science and technology development also in facing MEA with advances information technology and communication, should be utilized in maintaining Indonesian language. One of them is by applying ICT (Information, Communication and Technology)-based Indonesian learning. The utilization of ICT has become a necessity that cannot be delayed any longer, for example by using ICT as a learning tool of Indonesian. Utilization of information and communication technology for education can be implemented in various forms in accordance to its function in education. The function of information and communication



technology in education can be divided into seven functions, namely: a) as a repository of knowledge, b) as a learning tool, c) as an educational facility, d) as the standard of competence, e) as a supporting administration, f) as a tool for school management, and, g). as an educational infrastructure (16).

Indonesian as the national language must be addressed together, including in its teaching. Indonesian which serves as a communication tool has a role as a transmitter of information. Speaking the truth of language will affect the accuracy of information presented. Various phenomena have a negative impact on the language truth-speaking that are tailored to the rules, in this case, the use of Indonesian language properly.

The globalization era is characterized by a flow of powerful communication that demands the policy makers in the field of language to work harder in further refining and improving the sectors related to language development problems (3,17). States that globalization go through the boundaries of culture through a wide range of air travel, the breadth of communication, and the increasing tourists to various countries.

Seeing the rapid of domestic development of Indonesian, the growth in other countries is also very encouraging. The latest data shows that at least 52 foreign countries have opened the Indonesian program (Indonesian Language Studies), in fact, this development are increased after the formation of the National Association of Indonesian Foreign

Speakers Group in Singapore in 1999. Although Indonesian development increase rapidly on the one hand, in the other hand the opportunities and challenges to Indonesian become greater. There are various opportunities of Indonesian in this globalization era. One of them is the widespread support from various parties, including the role of the mass media. Meanwhile, the challenges can be categorized into two, namely internal challenges and external challenges. Internal challenges is the form of negative influence of regional languages in the form of vocabulary, word formation and sentence structure. External challenge comes from the negative influence of foreign languages (especially English) in the form of the entry of the vocabulary without the process of establishing the terms and use of the English sentence structure (absorption) or of a functional language of each science.

The globalization era in which contains Asean Economic Community (AEC) program, demanding the role of language in the development of science and technology. Human resources plays a very decisive level of success, including the successful language training and development.

The problems of language training and development has shown the encouraging progress. This does not mean that there are no obstacles or challenges that require a serious treatment. In the future, the language training and development will face various challenges. If it is not dealt seriously, it would be a sharp pebbles that may hamper the efforts. The



challenges that should be considered are as follows:

The success of a program and the business is largely determined by its human resources. The success of language training and development also depends on the human administrators. Consequently, a figure that is in charge in the future of language development is demanded to be more professional. The progress or development in all sectors of life as a result of advances in science and technology, demands the optimal function Indonesian as a means of communication. Indonesian is demanded to be more effective and efficient in accommodating a variety of concepts needed by the open and modern Indonesian society. Indonesian also must be able to meet the users' neds in various fields, such as politics, economics, education, science, technology, security, and culture (6,18). In other words, Indonesian should be able to realize its identity as a modern language, as mandated by the Guidelines of State Policy 1998.

One point of Indonesian development interest is fostering positive attitudes towards Indonesian. It signaled that the problem of attitude is the most decisive factor of the success of development. From this positive attitude, the love and pride in Indonesian speaking will grow. Positive attitude towards Indonesian these days is already descry, though not as we expected yet. This means that the development of Indonesian which has been implemented by the government in its various forms has revealed encouraging results.

Indonesian has demonstrated its role in the life of the Indonesian people, both as a means of communication and as a supporter of science and technology. This needs to be maintained and even improved so Indonesian really becomes the pride of Indonesia nation (15,19).

#### **IV. CLONCLUSION**

The century and millennium change is predicted to bring about a change to the economic structure, the power structure, and the structure of world culture. The most prominent phenomenon happening in this period is the process of globalization. By excessive fear and anxiety, the anticipation tends to be defensive, building blockhouses. The era of globalization will touch all aspects of life, including language. Increasingly global language used by all the nations of the world is English. It will take place the paradoxes of the various components of life, including language.

Its position as the national language, Indonesian serves as a) a symbol of national pride. b) a symbol of national identity. c) a means of communications between citizens, between regions, and between cultures, and d) a tool that enables the unification of various tribes with different socio-cultural background and local language into a national unity of Indonesia. Bahasa Indonesia is a pride for the Indonesian people that we have found our identity as a sovereign nation in the level of the countries in the world. As a symbol of national identity, we hold Indonesian language beside the red and white



flag and emblem of our country. Indonesian can have an identity only when the society fostering and developing it in a way that is clean from elements of other languages. Indonesian third function, as the national language is a means of communications between citizens, between regions, and between tribes.

Its position as the language of the state, Indonesian serves as a) the official language of the state, b) the language of instruction in the educational world, c) means of communication at the national level for the sake of development planning and implementation, and d) the development tools of culture, science and technology. Thus, Indonesian should be preserved and studied constantly, in order to able to filter the internal and external challenges, both functional Indonesian in particular and in general, is based on the good and proper Indonesian language.

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# ENHANCEMENT OF INDONESIAN SKILLS AND STUDENT CHARACTER THROUGH APPROPRIATE APPROACH

Yuni Indriyani <sup>1)</sup>

<sup>1)</sup> PGSD FKIP Unpas, Bandung, Indonesia  
yuniindriyani@unpas.ac.id

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**Abstract.** The loss of the supervising role in learning Indonesian language skills in elementary school (SD) is a factor causing the difficulty of students communicating both orally and in writing. In an effort to solve the problem, the researcher gives an alternative problem solving skill in Indonesian language through guidance approach. The purpose of this study is to find out whether the guidance approach can improve the skills of Indonesian primary school students. **method:** The research method used is Collaborative Action Research which is divided into four cycles with the research participants are the students of class I B SDN Cirangrang with the number of 34 students. The instruments used were student worksheets, observation sheets, and spontaneous interviews. The results showed that the guidance approach can improve the skills of Indonesian language. **Conclusions:** This is evident from the increased language skills in students' width, and changes in the character of the students. Therefore, the guidance approach can be used as an alternative as an effort to improve the Indonesian language skills of students in elementary school.

Keywords: Indonesian language skills, Guidance approach

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## I. INTRODUCTION

Teaching Indonesian in elementary school (SD) is not easy work, because there are four aspects of language skills that must be mastered by students, namely: listening, speaking, writing and reading. Indonesian lesson is intended for students to have the ability to speak Indonesian and have the ability to think and reason well so it can be delivered through a good language as well.

Although many opinions on the importance of developing the potential in elementary school and low-class educators know that students still exist in the early age range that requires guidance to be able to develop its potential by giving them the opportunity to gain experience directly, but in reality there are still many educators are difficult to apply, even though they know the importance of it to the child. This is because the learning system is still centered on the



teacher who became one of the difficult factors to develop student potential. In addition, the process of learning in low classes this time is still too academic. This can be seen from the learning given sometimes still in the form of subjects is not a theme, where students are required to be able to read and write and count well, although in fact there are still students who still can not read, write and count because not follow the previous education, education kindergarten, and because students are weak in capturing learning materials. However, students are directly invited to read and understand the reading. Thus, there are still many aspects of child development that have not received optimal attention such as courage to speak in public, courage to express opinions, and self-development. In other words, aspects of student personality development are neglected. The result is that students are stressed out by the burden of learning materials, and the unevenness of the learning experience acquired by the students, and the uncontrolled character of the students' characters.

Identified characters of students who are not mature and not independent. Among them are crying when they encounter obstacles in completing tasks assigned by teachers, some even looking for their parents (mother) with the intention of asking for help. There are also students who always ask the teachers about the little things they can actually do just get the strengthening of teachers. These students usually do the task while standing on the teacher's

desk or moving from their seats to the front desk in order to get closer to the teacher. This of course interferes with other students' learning activities.

The role of teachers as in the guidance of students in elementary school in essence can not be separated by the learning process or in other words 'integrated'. If the role of the teacher as a supervisor should be integrated in elementary school learning can work well, then the readiness of learning and personal maturity of children will greatly support the success in the next education. The success of the teacher guiding the students in the first grade becomes the determinant for the student's success in completing the learning process in elementary school.

According to Dinkmeyer and Caldwell (in Setiawati & Chudari, 2007), there are several factors that distinguish between primary and secondary school counseling: first, guidance in primary schools emphasizes the role of teachers in the counseling function; second, the focus of guidance in primary schools emphasizes the development of self-understanding, problem solving and ability to relate effectively with others; thirdly, the guidance in primary schools involves more parents because of the importance of parental influence in the life of the child during elementary school; fourth, the guidance in primary school should understand the child's life uniquely; fifth, the guidance program in the primary school should care about the basic



needs of children such as the need to mature in understanding and acceptance, and understand the advantages and disadvantages of self, sixth, guidance programs in primary school should be convinced that elementary age is a very important stage in the stages of child development.

## **II. METHOD**

The research method used in this research is collaborative action research method (Collaborative Action Research). The use of action research methods in this study is based on research considerations directed to the guidance approach to improve the intelligence of low-grade students. While the approach used in this study is a qualitative and quantitative approach. The use of qualitative approach is to obtain qualitative data from the results of observation and interview while quantitative approach is an approach that allows data recording and processing of research results significantly in the form of numbers, thus facilitating the process of analysis and interpretation by using statistical calculations. Quantitative approach is used because it needs research data about guidance approach to improve students' language skills.

This research was conducted at SD Negeri Cirangrang Kota Bandung. The subjects of this study are teachers and students of class I B SDN Cirangrang with the number of 34 students consisting of 20 male students and 14 female students with an age range

between 6 - 7 years. The reason for choosing first grade is because the age of first grade students, including at an early age that still requires guidance.

## **III. DISCUSSION**

Learning of language skills is sometimes regarded as a difficult thing, because it must master the four aspects of language simultaneously in every learning, but so far the students seemed to feel enjoy and cool in experiencing changes in learning. They always give a positive response to every lesson they receive. It was also proven from the observation that was done with the result of the increasing of Indonesian language skills of the students. To find out the extent to which improvements occur, the researcher also assessed through observing an increase in language skills that occurred during group activities. The group observation is done by observing students individually. That is, observation is done only by observing two students in each group. This is done because considering the limited time that researchers have if they have to observe all the students greeting each group there. So the research objectives can be achieved, and researchers can be more focused and intensive in implementing learning than to observe the entire group. As for the determination of the subject of observation and the group itself which consists of students who have advantages, is a proposal given by the teacher to the researcher, considering the teacher is the person most know the



characteristics of students in the classroom. Here is an overview of the improvements explained through the

formation of tables and graphs of skills improvement in Indonesian language.

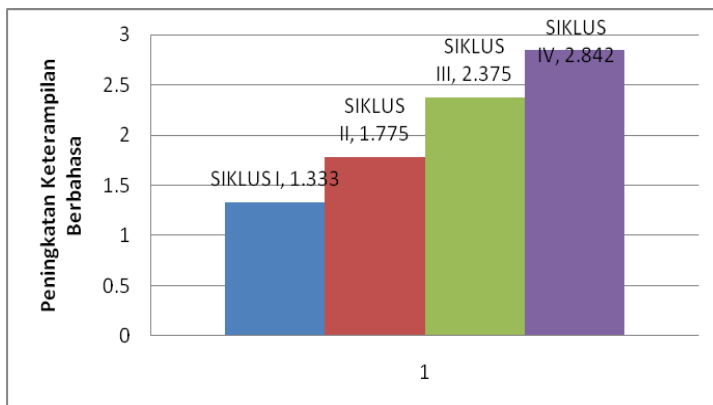


Fig. 1. Graph Improved Language Skills

Overall, the increasing of Indonesian language skills which so far can be achieved well not only gives influence to the language skill aspect, but also the aspect of the character of the students who participate in improving in line with the improvement of students' language skills. In the early-cycle cycle, when the students'

language skills have not been able to see an improvement, the character of the student is still not much visible. But after a few more cycles, as students' language skills increase, students' characters start to change significantly. It can also be seen in the following picture:

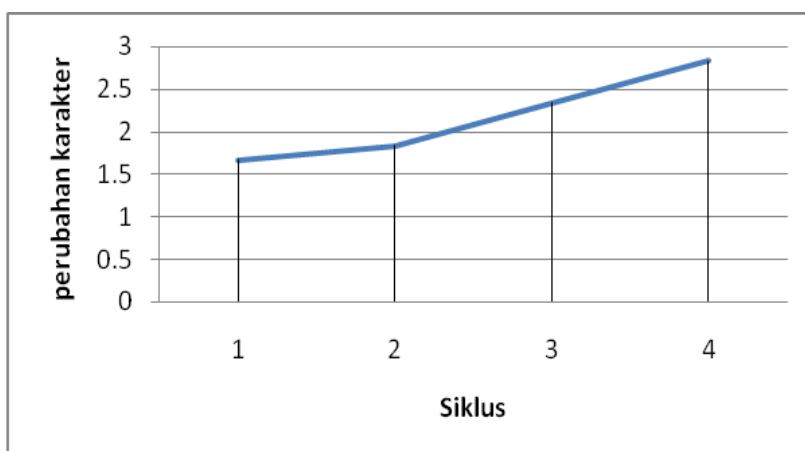


Fig. 2 Graph Changes in Student Discipline Character



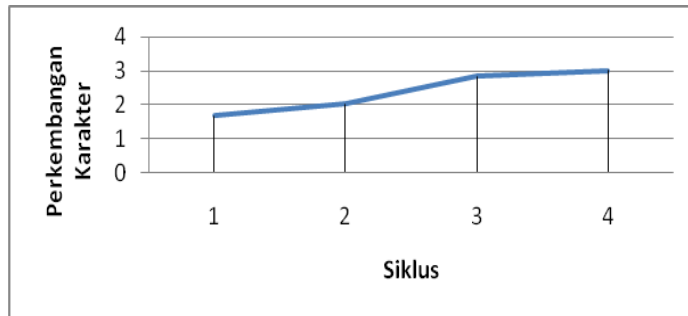


Fig. 3. Graph Changes in Students Hard Working Character

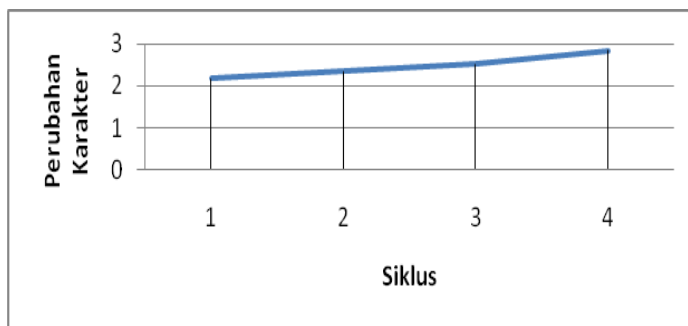


Fig. 4. Graph Changes in Student Responsibility Character

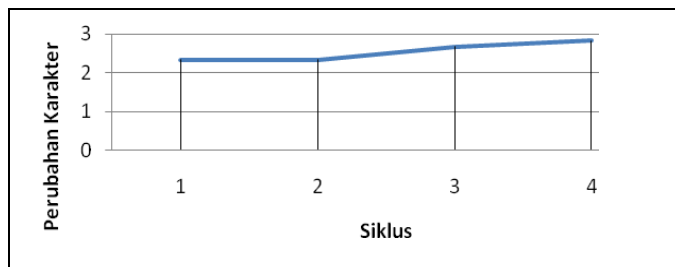


Fig. 5. Graph Change the modesty of the students

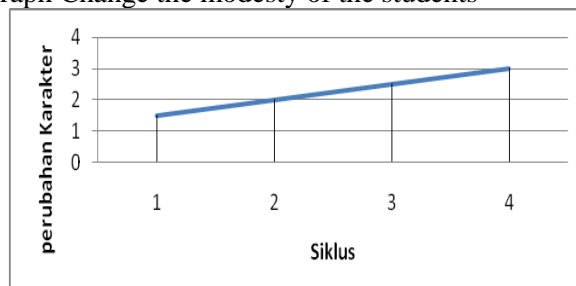


Fig. 6. Graph Character Changes in Student Cooperation

Language as a means to communicate with each other students can develop the potential that exists in each of them. Based on the above explanation, it can be seen that the understanding of Indonesian language learning in elementary schools, based on the curriculum shows the language is very important as a tool to communicate and develop the basic potential of each student, and in accordance with the direction of the goals listed in the learning program.

At the time of the group there are still many students who fuss and out of his group to see the work of other groups or even mejahili other friends. But it is still understandable considering the elementary school children who are in low class physical development is in a state of optimal development. This means that children of elementary age still like to move, play to optimize physical development. So it's not too weird or a problem, when the child feels uncomfortable in his seat. Adults can sit for hours, while elementary school children can sit quietly for at least 30 minutes. To overcome a child who can not sit in his seat, should not be too prohibited. But sometimes it is a necessity, the need to channel its physical development, the need that must also be met by the teacher. This is "the character and needs of elementary school children: happy to play, happy to move, happy to work in groups, and happy to do their own

<http://www.sekolahdasar.net/2016>).

This is where the importance of the role of the teacher as a facilitator to be able to accommodate the needs of students in learning, so that students do not feel bored and tired of the situation.

The improvements that occur after the application of the guidance approach are: (1) improvement in the learning objectives: the goals aim at the whole aspect of child development not only the cognitive aspects, according to the level of development and individual characteristics, are directed toward the learning outcomes and changes in the positive character of the students , (2) improvements in learning materials: learning materials are more varied, according to the capacity, interests and learning needs of children, accommodates contextual student experiences, (3) improvements in learning methods: attention to background and progress of student learning, implemented in various themes and activities, teachers facilitate learning and child learning activities, available learning options for children, flexible and use of play methods, (4) relationships and ways of interaction of teachers with children: same for all children, open, warm, respect children, reasonable treatment and not excessive, understand ca (5) improvements in the attention and special treatment of the child in need: attention to the personal characteristics and character of the child, understanding the underlying causes of the problem, the child's ability to take initiative, respecting the child's opinions and initiatives, responsive to the child's experience ,





adjusting learning activities with children who are slow and / or fast learning, support the development and learning of children, (6) improvement in learning: for the progress and improvement of development and learning of children, in accordance with areas of child development and learning, vary, , involving the child as the subject of the appraisal, involving the parent as a source of assessment information, (7) improvements in the provision and use of learning media and learning tools: aligned with the child's developmental level, learning capacity, and socio-cultural context, varies, not physically harmful da (8) improvements in classroom management and management: enabling children to learn individually, in groups and in class, activity schedules are logically and balanced for the sake of learning, minimizing waiting times, involving (9) improvement in relationships and cooperation with parents: treating parents as equal partners in educating children, paying attention to parents' wishes and preferences, seeking to receive and receive inputs - parents' feedback on children's progress and learning, brainstorming with parents on how to facilitate children's learning activities, allowing parents to participate and contribute to learning activities.

#### **IV. CONCLUSIONS**

Based on the results of classroom action research conducted collaboratively between researchers

and teachers who have been implemented through several cycles and based on all the discussion and analysis that has been done, can be concluded as follows; The guidance approaches examined through collaborative classroom action learning have succeeded in improving the Indonesian language skills of children in the lower classes. With the conceptualized learning in the present study, it can make teachers look at children as people who have ability, free to make mistakes. Furthermore, the teacher provides guidance so that the child finds his mistake and fix it himself. This is what mebuat a change in the character of students in the guidance approach Because the language is a communication tool, then by saying positive that can be words of motivation for students, making communication between teachers with students to be fluent and self-material teachers quickly understood students. So during the learning process teachers adjust to the child's environment so that the results in accordance with the events and circumstances faced by everyday children. So in the activity it changes behavior because of learning even in a simple level. Thus the aspects of language skills before and during teacher learning are modeled, because child language errors can be caused by a mistake by the teacher as a language model.



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## SOFT SKILLS FOR 21<sup>ST</sup> CENTURY TEACHER

Feby Inggriyani

*PGSD FKIP Unpas, Bandung, Indonesia*

*E-mail: febyinggriyani@unpas.ac.id*

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**Abstract.** 21st century forms a superior human resource. Education not only creates graduates who are able to compete, but coupled with healthy competence and able to excel in various fields. The duties of 21st century teachers are able to organize learning process and implement the four pillars of learning recommended by UNESCO for education, which is learning to know, learning to do, learning to be and learning to live together. Four competencies that must be owned by professional teachers are: pedagogic competence, professional competence, personality competence and social competence. 21st century education requires teachers to emphasize learning on critical thinking and problem solving, creativity and innovation, communication, collaboration, and global awarness. The 21st century skills teachers must have are (1) life and career skills, (2) learning and innovation skills, and (3) information media and technology skills. Therefore, teachers are required not only to have hardskill but also to have softskill to succeed in their career and functioning in social life. soft skill a teachers should have interpersonal and intrapersonal skills.

Keywords: soft skill, 21<sup>st</sup> century, skill teacher

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### I. INTRODUCTION

The world of education can not be separated from the figure of a teacher. Teachers are an important component that is crucial in the success of learners. Teachers as learning agents that have a very complex role as a facilitator, motivator, motivator learning and inspiration. Therefore, the teacher is the spearhead of the quality of education that relies on the quality of learning. One of the factors that influence the success of the learning process is the teacher's teaching skills. Teachers who have the skills to teach can create comfortable learning conditions, so students are easy to receive learning materials. Ability developed by teachers not only in the realm of cognitive and psychomotor, but equipped with aspects of the student's personality.

21st century education ensures learners have the skills to learn and innovate, the skills of using information technology and media, can work, and survive by using skills for life (life skills). Therefore, beside to teachers have hard skills, they are required to have soft skills and have professional competence. Ohi explains that in considering the sources of professional knowledge of teachers there are seven knowledge domains of teachers that are needed, that is, to understand, general pedagogical knowledge, student knowledge and how they learn, knowledge about the subject matter, pedagogical content knowledge, curriculum and knowledge of educational goals [1]. Other then, competence of 21st century professional teachers includes is critical thinking (problem solving), creativity and innovation, collaboration



(teamwork and leadership), cross-cultural understanding, communication (include information and media literacy), computing and ICT literacy, career and learning self-reliance or abbreviated 7C with the demands and current development [2]. Beside that, 21st century skills are (1) life and career skills, (2) learning and innovation skills, dan (3) Information media and technology skills. Three skills are summarized in a scheme called the life skills 21<sup>st</sup> century/21st century knowledge-skills rainbow [3]. Learning and innovation skills include creativity and innovation, critical thinking and problem solving, communication and collaboration, and information literacy (information literacy). Life and career skills consisting of flexibility and adaptability, initiative and self-direction, social and crosscultural skills, productivity, accountability and leadership. Therefore, the skills of 21st century teachers demand sufficient knowledge and skills not just hard skills, but soft skills need to be developed include is having life skills and career skills, learning skills and skills innovation in information media technology.

Soft skills refers to the personality, attributes, qualities and personal behavior of the individual. Soft skills include certain abilities such as communication, problem solving, self-motivation, decision making, and time management skills [4]. Therefore, personal qualifications for soft skills and hard skills make it easy for graduates to find work. Hard skill skills are practical for some types of work, while soft skills support workers to

work smoothly[5]. Soft skills are personal attributes that enhance individual career interactions, performance, and prospects [6]. Thus, soft skill is needed in supporting career in his work. 85% of soft skills and 15% of hard skills are competencies required in the job [7].

Therefore, if since the beginning of the teacher candidate students are equipped with soft skills enough and even have been accustomed to practice in everyday life, so chances to become successful people in society will be larger. success of being a teacher can be achieved by a balanced combination of hard skills and soft skills. In the world of education, "soft skills" is one aspect of skills that needs to be given more attention and is considered as a skill aspect that determines the success in the effort to produce professional teachers. Therefore, soft skills need to be owned by the teacher.

## **II. LITERATURE**

### **A. 21 Century Education**

Education in the 21st century requires learners to have the skills to learn and innovate, the skills of using information technology and media, can work, and survive by using skills for life. 21st century skills emphasized on creating students who are able to apply technology through digital age literacy, are creative and critical in their thinking and possess excellent interpersonal and social skills [8].The main concern of education in the 21st century is to prepare life and how to work in society by having professional teacher competence. Professional teachers are believed to be able to deliver students in learning to discover,



manage and integrate acquisition, and solve problems related to knowledge, attitudes and values and life skills. Professionals are qualified teachers, competent, and are able to influence the learning process of students which will result in good learning achievement for students [9]. Therefore, teachers should be able to carry out their duties and functions to learn and produce learning achievement student. UNESCO makes four pillars of education to welcome the 21st century, namely: (1) learning to know (learn to know); (2) learning to do; (3) learning to be (learning to actualize themselves as independent individuals with personality), (4) learning to live together (learning to live together). Therefore, in the learning of a professional teacher must apply these four pillars to form a generation of excellence in the 21st century.

Professional teachers should be competent in implementing the learning program. Law Number 14 Year 2005 on Teachers and Lecturers explains that the competence a teacher includes is pedagogic competence, personality competence, social competence, and professional competence obtained through professional teacher [10]. Therefore, every teacher must have absolutely four competencies to become a professional teacher. Other than, 21st century teachers are required not only be able to effectively teach and manage classroom activities, but also be able to build effective relationships with students and the school community, using technology to support teaching quality improvement, and reflecting on and improving their learning practices

on a continuous basis. Thus, teachers in the 21st century not only have the ability to teach well, but have other skills that support in the development of his career [11]. Therefore, teachers in the 21st century not only have the ability to teach well, but have other skills that support in the development of his career.

21st century professional teachers are skilled in teaching, able to build and develop relationships between teachers and schools with a wide community, and a learner and change agent at school. Therefore, teachers need a conducive learning conditions in school as a vehicle for continuous professional learning. Guidance is a consciously and deliberate relationship between mentors and guided individuals to produce significant changes in the knowledge, workability, and mindset of the mentored individual [12]. Therefore, the 21st century requires individuals who are able to work together, have social skills, social and environmental concerns supported by qualified teachers. A qualified teacher is a can assist students in building skills and fun both finding and solving problems. Thus, the teacher must be able to develop his ability to build skills that students have until he can solve the problem.

The 21st century learning according to BNSP is critical thinking and problem solving skills, communication and collaboration skills, able to communicate and collaborate effectively, communication creativity, innovation skills, information and communications technology literacy, ability contextual learning, information





skills and media literacy. [13] teachers should have seven soft skill components consisting of communicative skills, critical thinking and problem-solving skills, teamwork skills, lifelong learning and information management, entrepreneurial skills, ethics, morale and professional skills, and leadership skills [14]. Therefore, teachers must be able to build students to active in realizing the 21st century education. Digital skills are included among the necessary skills of an effective teacher as a result of substantial developments in the information and communication fields of technology in relation to which education systems can not and must not remain indifferent. Besaide that, in manifesting a professional and meaningful educator, our humanitarian duty is to try teach the learners to be able develop their potential through a meaningful approach and learning process (meaningful learning), fun (joyful learning) and challenging or problematic learning, so that in turn can be produced quality human Indonesian resources who have a hard skill and soft skills are balanced [15]. Therefore, in the learning of a teacher must be able to create a fun and meaningful learning and make students can solve the problem with critical thinking.

#### **B. The Importante of Soft Skills for Teacher 21<sup>st</sup> Century Skill**

The role of the teacher is the teaching, but beside on having hard skills the teacher must also have soft skills for the development of his career. Lack of attention soft skills the teachers can result in the quality of students which have not maximized.

This is because there are still teachers who have difficulty in developing interpersonal and intrapersonal skills. Soft skills is life skills for self, group, or community [16]. Therefore, individuals wich have soft skills make the presence of a person will be more felt in the community, because it has the skills to communicate, emotional skills, language skills, group skills, have ethics and moral, courteous, and spiritual skills.

Soft skills are a person skills in dealing with others (interpersonal skills) and skills to manage themselves (intrapersonal skills) in working to the fullest [17]. Interpersonal skills include the ability to motivate, leadership skills, negotiation skills, presentation skills, communication skills, relationship building skills and public speaking skills. The advantages of these two personal characteristics will differentiate a person from others while interacting in his environment. While intrapersonal includes self regulating, such as time management, change management, character, creative thinking, have a reference for positive goals, and have fast learning techniques. soft skills for teachers consists of intrapersonal skills and interpersonal skills. Intrapersonal skills are awareness, goal setting, belief, love, positive energy, concentration and decision making. Intrapersonality of individual is a skill that one has in managing oneself, such as time management, stress management, change management, transformation character, creative thinking, has a reference for positive goals, and has fast learning techniques.





Soft skills is personality attributes, both intrapersonal and interpersonal [18]. Intrapersonal skills are awareness, goal setting, belief, love, positive energy, concentration and decision making. While the interpersonal skills of communication, motivation skill, building teams and mediation skills. Thus, soft skills that need to be developed for a teacher namely intrapersonal and interpersonal for the development of competence.

Competence soft skills of the teachers is competence personality and social competence. If both competencies are owned by the teacher, so the teacher automatically has the competence of soft skills with professional competence and pedagogic. Personality competence refers to the personal maturity of teachers intrapersonally, including moral maturity, ethics, commitment, responsibility, wisdom, dignity, inclusive, tolerance, and discipline While social competence refers to the maturity of teachers in building relationships with others. Therefore, soft skills is a person skills in dealing with others and skills in self regulating

Soft skills is a long term investment that beneficial to future. Individuals which have good hard skills, not necessarily have good soft skills as well. This is because the Achievement Index (IP) has not been able to show soft skill. One form of soft skills for teachers is a skill or ability that displays the character while hard skills for teachers is a teaching skill. Therefore, soft skills and hard skills need by teachers in a balanced way. Having soft skills will have an impact on success and become a

competent and qualified teacher. The development soft skills of prospective teachers is done by following organizational and training activities that require individuals to cooperate and communicate with others. Other then, soft skills development for teachers is done often follow scientific meetings, scientific discussions, and education training, and add qualification or education.

The benefits soft skill for teachers are able to do interpersonal relations well, able to take decisions correctly, able to communicate effectively, teachers become more dignified, get the impression (image) and good influence in professionalism, able to give good taulandan and live become success [19]. Therefore, soft skills for teachers can improve their career by becoming successful. environment organization as a factor success that will help teachers development soft skills quickly and work efficiently in the 21st century [20]. Thus to develop soft skills required support from various parties so it will be easy and fast in working in the 21st century.

### **III. CONCLUSIONS**

The role of teachers is one of the most important factors in determining educational success. Teachers are required to have hard skills and soft skills in the 21st century. If the teacher has this quality, it will be great, advanced and successful. Soft skills the teachers must have are interpersonal and intrapersonal. 21st century education ensures students have the skills to learn and innovate, the skills to use information technology and media,



and can work, and survive with life skills. Therefore, teachers should be able to develop their competence.

Four competencies teachers are pedagogic, professional, social and personality competencies. Beside that, teachers must show a sense of leadership, can build a good environment for students, understand the content teaching, facilitate student learning and do reflection. The competence of 21st century professional teachers is critical thinking, creativity and innovation, collaboration (teamwork and leadership), cross-cultural understanding, communication (information and media literacy), computing and ICT literacy, career and learning self-reliance or abbreviated 7C. Furthermore, student-centered learning activities and the integration of real world tools will enhance student 21<sup>st</sup> century skills especially in the global world of technology and thus help them meet challenges and competitiveness. Therefore, 21st century challenges require humans to have 3 abilities is life and career skills learning and innovation skills, and information media and technology skills. Thus, these skills need to be possessed by teachers to improve the quality of learning and career development.

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# ROMANCE PANGERAN KORNEL: TRILOGUE REFLECTION OF SUNDAANESE COMMUNITY LIFE

<sup>1</sup>Asep Sjamsulbachri, & <sup>2</sup>Deni Zein Tarsidi

<sup>1</sup> Program Studi Pendidikan Ekonomi FKIP Pasundan University, Bandung, Indonesia

<sup>2</sup> Program Studi PPKn FKIP Pasundan University, Bandung, Indonesia

denizein@unpas.ac.id

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**Abstract.** Sundanese society as trapped in a pattern of globalization that can eliminate its identity as a Sundanese society. This paper wants to express 1). How the value of pengkuh agamana reflected in Roman Pangeran Kornel, 2). How the value of luhung elmuna is reflected in Roman Pangeran Kornel, 3). How is the value of the jembar budayana reflected in Roman Pangeran ornel. This research uses qualitative method with phenomenology approach. With data collection techniques: 1). Observation, 2). Interview, 3). Library Studies. This research reveals that: Roman Pangeran Kornel as the work of the Sundanese community has the values of life of the Sundanese society that developed from the time where the Sundanese people exist in this earth until now. These values are trilogy of Sundanese society life that is pengkuh agamana, luhung elmuna and jembar budayana. The three contents of the trilogy when fully implemented by the Sundanese society even by the people of Indonesia in general to the intornational society, then humans will reach the point of perfect life.

**Keyword:** Romance Pangeran Kornel, Sundanese, Community

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## I. INTRODUCTION

Globalization is a fact that we can not deny again so that knowledge and technology into two things that can not be separated from each other. According to A. Qodri Azizy (2004: 26), the keyword of globalization is competition. So that globalization provides opportunities and facilities for all people willing and able to use them for both self and human interest. Globalization has penetrated all over the world and even into remote areas, capable of breaking through the gates of moral and religious defense as strongly as it is preserved. Morality is loosened by something once tabooed,

it is now a matter of course. How to dress, interact with the opposite sex, enjoy drugs and entertainment places become one of the trends of the modern world that is difficult to overcome.

Finally, of all these things resulted in the character of the nation's children turned into fragile, irresponsible for being stunned by the life of a pleasant modern world. This is what causes a moral decadence that eliminates the creativity and productivity of the nation's children that should be a hope for future generations. So here, the importance of internalization of character



education in schools intensively as a solid foundation in printing students who have intellectual intelligence and emotional and spiritual intelligence.

The importance of character education should be a common awareness in the process of implementation either from family, school, society in the environment. According to M. Furqon Hidayatullah quotes his opinion Rutland (2009: 1) which suggests that the character comes from the Latin root meaning "sculpted". Literally character means its mental or moral qualities, moral strength, name or reputation (Hornby and Parnwell, 1972: 49). Meanwhile, according to the authors understanding the character itself refers to a special traits possessed by an object or a person and it will vary with others.

The purpose of National Education is to educate the life of the nation and develop a complete humanity of Indonesia, that is man who is faithful and devoted to God Almighty and virtuous noble character, possessing knowledge and skills, physical and spiritual health, solid and independent personality and sense of community responsibility and nationality.

With education, it will arise in a person to compete and motivate ourselves to be better in all aspects of life. Education is one of the conditions to further advance this government, then try education from elementary to university level.

The purpose of National Education in the 1945 Constitution (Amendment version):

Article 31, paragraph 3 states, "The Government shall endeavor and organize a national educational system, which promotes faith and piety and noble deeds in the framework of the intellectual life of the nation, which is governed by law."

Article 31, paragraph 5 states, "The government promotes science and technology by supporting the high values of religion and national unity for the advancement of civilization and the welfare of mankind."

While the National Education Objectives in Law no. 20, Year 2003

Article 3 states, "National education functions to develop the ability and form the character and civilization of a dignified nation in order to educate the life of the nation, aims for the development of the potential of learners to be a human being who believes and cautious to God Almighty, noble, healthy, capable, creative, independent, and become a democratic and responsible citizen. "

Purpose of Education According to UNESCO, In an effort to improve the quality of a nation, there is no other way except through improving the quality of education. Departing from that idea, the United Nations (UN) through UNESCO (United Nations, Educational, Scientific and





Cultural Organization) institutes launched four pillars of education both for the present and the future, namely: (1) learning to Know, (2) learning to do (3) learning to be, and (4) learning to live together. Where the four pillars of education combine the goals of IQ, EQ and SQ.

## II. METHOD

Methodologically, this research will use qualitative paradigm with phenomenology research design. The tradition of the Phenomenological study, according to Creswell, is: "Whereas a biography reports the life of a single individual, a phenomenological study describes the meaning of the live experiences for several individuals about a concept or the phenomenon" (Creswell, 1998: 51). Thus, studies with phenomenological approaches attempt to explain the meaning of the life experiences of some people about a concept or phenomenon, including the self-concept or view of their own life.

According to Arikunto (2006: 200) states that "the subject of research is the object, thing or organization where the data or research variables in question attached". No research can be done without a research subject. The subject of the study is the source that can provide information on the problems that the author thoroughly. According to Miles and Haberman (2007: 57) states that "in determining the subject of the study, there are

several criteria used: setting, actors, events, and processes" .

## III. RESULTS

Romance Pangeran Kornel by R. Memed Sastrahadiprawira, (Balai Pustaka 1930) one of the most famous daring in the opening of the Roman story of Prince Kornel mentioned that:

1. *Mungguh kamulyaan sajati* (true glory)
2. *Lir ibarat wawangunan* (like a building)
3. *Nu weweg alus tur gede* (big and sturdy)
4. *Hese piruntuheunnana* (will not collapse)
5. *Sabab ditihangan* (because it is supported by a pole)
6. *Ku tabe'at anu luhung* (noble character)
7. *Dihateupan kautamaan* (protected by glory)
8. *Dibilikan ku pamilih* (coated with determination)
9. *Dikuta ku kasetyaan* (fortified by loyalty)
10. *Dipedeman ku wawanen* (confirmed by courage)
11. *Dipaku ku kapengkuhan* (sealed by firmness)
12. *Dihias ku kapinteran* (adorned with intelligence)
13. *Diparabotan ku elmu* (equipped with science)
14. *Diukir ku karajinan* (decorated with diligent nature)
15. *Jalma oge kitu deui* (so do humans)





16. *Lamun martabatna mulya* (when it gets glory)
17. *Hamo towong dipiomong* (will always be told people)
18. *Moal pegat dipicangcam* (remembered forever)
19. *Sababna kamulyaan* (because of the glory)
20. *Henteu kawengku ku waktu* (not limited time)
21. *Langgeng kawangikeunanan* (fragrant of all time)

This *danding* suggests that for the Sundanese man who wants to gain true glory must make himself as a person who has the eight properties such as: a) *tabe'at anu luhung*, b) *pamilih*, c) *kasetyaan*, d) *wawanen*, e) *kapengkuhan*, f) *kapinteran*, g) *elmu dan h) karajinan*. Eight properties according to the romance that must be used as a view of life of the Sundanese man to obtain its degree of virtue (Warnaen, Rusyana et al, 1987).

#### **IV. DISCUSSION**

##### **1. Cultural Moral Values**

To clarify the purpose of the term cultural moral values should be discussed about values, morals. And the culture itself.

##### **1) Value**

Man as a creature of reason and mind is always in demand to struggle and think creatively in choosing between good and bad based on the values prevailing in the environment. According Purwahadiwardoyo (1965: 97) source of values on which the

basis of human life can be classified into two, namely:

- a. The value of God, is the value that is commanded by God through His prophets and apostles this value contains eternal absolutes and truths for human life.
- b. Human value, is a value that grows and develops according to human consent, as well as live and evolve from human civilization. Human values will be institutionalized into social traditions and norms passed down from generation to generation, as well as binding members of a particular society.

Encyclopedi Britanica (1998: 9396), states that "value is a determination or quality of an object which involves any sort or appreciation or interest," in other words, the value is the content or quality of an object in which it engages many interests and appreciate as needed. Value in general will be closely related to goodness, although they are not the same, the value is more toward the attitude, opinion or sense of a person to something object, while the goodness is attached to the object.

Hartmann (1997: 45) which mentions the value as a "sense of quality" attached to the object carrying it. This sense of quality is like the beauty of a painting or the utility of a piece of equipment. In his book entitled the philosophy of



values, Frondizi (2001: 8) said that the value is a real quality, where the value of an object is the nature, quality or sui generis owned by the object.

Maslow in Gobel 1994: 154 mentions the main values are the noble values desired by those who actualize themselves as being values in the form of their peak experiences of truth, beauty, whole and the dichotomy of transcendence as the transformation of the things contrary to unity.

Continue rokeach (1973: 5) in his book the nature of human values, states some things related to the value of "A value of an enduring belief that a certain and specific mode of conduct (ie, courageous, honest, loving obedient, etc) is a personally or socially desirable and preferable to an opposite or converse. " A value is a belief, a specific way of acting, or an ending state of a more desirable private or social existence. While Djahiri (1966: 23) who said that value is a set of ideas, gagasan, and something, valuable according to standards of logic, aesthetics, ethics, religion, and law that became motivation orientation in behaving and behaving then the values adopted can be standardized in measure an activity.

Kluckhohn (1951: 339) says that the limits to a narrow value are due to a difference in priority setting. Scheler (1928) says that there are four groups of values composed of the bottom: life values, psychological

values, spiritual values, while Rokeach (1973: 28) develops two groups of values that are terminal values and values instrumental. The value of the terminal is limited as the existence of the end of existence in idamkan, while the instrumental value is defined as a way or behavior that is in the idamkan to achieve the final existence.

According to Bertens in Paul Suparno 2002: 76 value is something that appeals to us, which we seek, fun as something to be liked and desired. High cultural values are always oriented to the depam, exploring and innovating the view of life assess high achievement, while the value of weak mentality is less sense of responsibility and likes to dig. To narrate it, it is necessary to do four steps: good example, appropriate stimulation of persuasion and illumination as well as guidance and supervision of a generation (Koetjaraningrat 1983: 74).

2) The content of moral values in Sundanese culture

Sundanese culture as a group of ideas and ideas, activities or actions patterned, as well as the physical work of ethnic Sundanese is a form of creativity of intellect and mind that is patterned and contains the system of values and moral norms as a form of ethics that are interrelated and attached to the Sunda ethnic environment is believed to be true and tested in history so that it is considered valuable, valuable, important, and serves as a guide that



gives arag and orientation to the life of ethnic Sundanese. In the workshop transformation of Sunda cultural values in 2001 also mentioned that the value of Sundanese culture is the values that are owned by humans and the Sundanese people and is believed to be the truth so that it creates a determination to make it happen.

Sundanese culture apart from influenced by Hinduism and Buddhism, also many many influenced by Islam religion. Closely Sunda and Islam can be seen in the expression that *urang sunda kedah muji syukur tur ngaraos bagja ngagem agama islam rehna islam teh agama Allah, rakitan sandi-sandina estu saluyu pisan sareng wet agung anu ngatur gelarna bumi langit* (R. Poeradiredja, 1939: 78) .The Sunda people should be happy and grateful to the God of YME for being given the grace and the gift of being able to embrace Islam. This expression shows that, the values contained in the Islamic religion of this phrase indicate that, the values contained in the Sundanese culture.

## 2. *Luhung elmuna, pangkuh agamana, jember budayana*

The explanation of this value comes from the material of Unpas lecturers in Unpas vision and mission (ID book Unpas 1997) which explains the purpose of the above mentioned culture verse:

1) *Luhung elmuna* or smart in the sense of extensive knowledge, accompanied by behavior that shows the light of authority, wise

and because for the lofung science will have an integral personality. Human traits of the lofty science include:

- a) Arrasihun is a man of high knowledge and able to adjust his knowledge in accordance with the demands of the times as written in the letter An Nisa: 162 which translation as follows: "All those who are rasikh in knowledge of them are all believers *mu'min* .. .... "
- b) *Ulul Albab* is a man capable of using his mind to realize his knowledge of the power of Allah, as is meant in Q.S. Ali Imran: 190 "..... There are indeed signs indicating the existence of God and His power, for those who have a strong and clean mind. "
- c) *Ulul Ilmi* is a person who mastered the field of science he studied as described in Q.S. Ali Imron: 18 which means: "and it is not a repentance for a person who continuously commits evil ..."
- d) *Ulul Absor* is a person who is able to predict an upcoming event on the basis of the facts / knowledge they already possessed as described in Q.S. An Nur: 44 whose translation: "God replaces the night with noon, indeed in that there is indeed a teaching for those with eyesight of the heart."
- 2) *Pangkuh Agamana*, pious people who can distinguish between right



and wrong. Religion is shown in figure

- a) Muslims mean human beings who submit themselves to Allah SWT as meant in Q.S. Al Hujarat: 13 which means: "... The most glorious in the sight of Allah is the one who surrenders to Allah, Allah always knows all the secrets you hide."
- b) *Mu'minin* is a man who believes in Allah SWT. As explained in Q.S. Al Furqon: 11 which means: "..... they are actually hell sa'ir ...."
- 3) *Jembar budayana* it is a broad nature of insight so that he is not fanatical, he will tolerate for things that do need to be tolerated. In terms of morality this figure is called a human being who is hilim human hearty field. According to Imam Al Gazali Hilm's nature is the weakening of anger power. This trait can be gained by imposing on a heartbreaking heartbeat (in Muhammad Al Huffy: 235). Human figures in this category include:
  - a) *Sholihin* is a person who always do good and never troubles others mentioned in Q.S. At Taubah: 15 which means: "And Allah takes away the hearts of the believers, ... and Allah always does things with wisdom."
  - b) *Mukhsinin* is a person whose work is good and beneficial as described in Q.S. An Nahl: 128 whose translation reads: "... because Allah is with those who worship Him and those who do *ikhsan*." *Mukhlisin* is a person who does not expect praise or selfishness

and just expect God's grace as described in QS Al Maidah: 98 which means: "... and that Allah is Forgiving and always pours out His mercy."

Verse *luhung elmuna, pangkuh agamana, jembar budayana* this is the ideal vision that became the goal Pasundan. The linkage between these three attributes can be seen in Baing's opinion (1924: 57) that *pangkuh agamana* is the value of the attitude on religion because *elmuna luhung* while the elegant *elmuuna* will encourage people to become a *jembar budayana*. So these traits are systematic and not aroused by the trivial nature (*tuturut munding*).

### 3. Reflections Romance Pangeran Kornel with *Pengkuh Agamana, Luhung Elmuna, Jembar Budayana*

In the above explanation has been discussed about the contents of Romance literature Pangeran Kornel and the meaning of *Pengkuh Agamana, Luhung Elmuna, Jembar Budayana*. Here will be analyzed more specifically about the relationship of the phenomenon and how the Sundanese people interpret it. As a result of the work of the Sundanese society Romance Pangeran Kornel certainly has a reflexivity with the term *pengkuh agamana, luhung elmuna, jembar budayana*.



Table 1  
Reflections Romance Pangeran Kornel with *Pengkuh Agamana, Luhung Elmuna, Jembar Budayana*

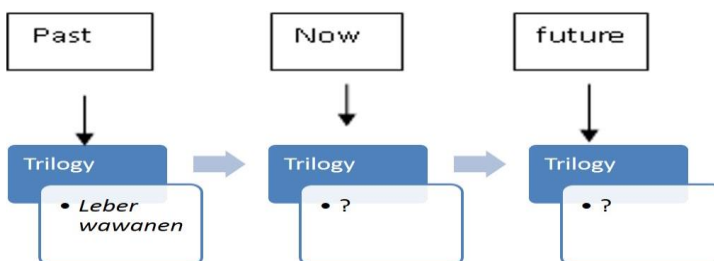
<b>The Roman content of Pangeran Kornel</b>	<b>His relationship with <i>Pengkuh Agamana, Luhung Elmuna, Jembar Budayana</i></b>
<p><i>Mungguh kamulyaan sajati</i> (true glory) <i>Lir ibarat wawangunan</i> (like a building) <i>Nu weweg alus tur gede</i> (big and sturdy) <i>Hese piruntuheunnana</i> (will not collapse)</p>	<p>The description of the overall value of <i>Pengkuh Agamana, Luhung Elmuna, Jembar Budayana</i>.</p>
<p><i>Sabab ditiangan</i> (because it is propped up by a pole) <i>Ku tabe'at anu luhung</i> (noble character)</p>	<p><i>Jembar Budayana</i>.</p>
<p><i>Dihateupan kautamaan</i> (protected by glory) <i>Dibilikan ku pamilih</i> (coated with determination)</p>	<p><i>Pengkuh Agamana</i></p>
<p><i>Dikuta ku kasetyaan</i> (fortified by loyalty) <i>Dipedeman ku wawanen</i> (confirmed by courage) <i>Dipaku ku kapengkuhan</i> (sealed by firmness)</p>	<p>The description of the overall value of <i>Pengkuh Agamana, Luhung Elmuna, Jembar Budayana</i>.</p>
<p><i>Dihias ku kapinteran</i> (sealed by firmness) <i>Diparabotan ku elmu</i> (equipped with science) <i>Diukir ku karajinan</i> (decorated with diligent nature)</p>	<p><i>Luhung Elmuna</i></p>
<p><i>Jalma oge kitu deui</i> (so do humans) <i>Lamun martabatna mulya</i> (when it gets glory) <i>Hamo towong dipiomong</i> (will always be told people) <i>Moal pegat dipicangcam</i> (remembered forever) <i>Sababna kamulyaan</i></p>	<p>The description of the overall value of <i>Pengkuh Agamana, Luhung Elmuna, Jembar Budayana</i>.</p>





<b>The Roman content of Pangeran Kornel</b>	<b>His relationship with Pengkuh Agama, Luhung Elmuna, Jembar Budayana</b>
(because of the glory) <i>Henteu kawengku ku waktu</i> (not limited time) <i>Langgeng kawangikeunanan</i> (harum sepanjang masa)	

#### IV. CONCLUSION



From the above discussion it can be concluded that: Roman Prince Kornel as a work of the Sundanese community has the values of life of the Sundanese society that developed from the time where the Sundanese people exist in this earth until now. These values are trilogy of Sundanese society life that *is pengkuh agama, luhung elmuna and jembar budayana*. The three contents of the trilogy when fully implemented by the Sundanese society even by the people of Indonesia in general to the international community, then humans will reach the point kemulyaan life.

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# ANALYSIS OF INTERNAL AND EXTERNAL FACTORS IN STUDENT ACHIEVEMENT STUDY PROGRAM OF ECONOMIC EDUCATION FACULTY OF TEACHER TRAINING AND EDUCATION PASUNDAN UNIVERSITY

Leni Maryani<sup>1</sup>, Sri Marten Yogaswara<sup>2</sup>, Saiful Almujab<sup>3</sup>

<sup>1,2,3</sup>Economic Education Studies Program, Pasundan University

<sup>1</sup>lenimaryani@Unpas.ac.id <sup>2</sup>myogaswar@Unpas.ac.id <sup>3</sup>saifulalmujab@Unpas.ac.id

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**Abstract.** This reasrch aims to determine the description of internal factors and external factors that affect student achievement, knowing whether there is influence of internal factors and external factors on student achievement, and know how much influence internal factors and external factors on student achievement. The research method used is descriptive analysis. With data collection techniques using documentation studies and student questionnaires and data processing techniques using the percentage of students calculations. Based on the results of the research it is known that: internal factors are more dominant in student achievement than on external factors. The average item on the internal factor dimension is in the "Good" category aimed at a weighted average of 271.73 out of 375 or 72.46%. While the average item on the external factor dimension is in the "Good" category shown in average weight of 262.87 from 375 or 70.1%. As the end of the study the authors suggest that the campus should always pay attention to the quality of teaching and learning facilities in accordance with national standards of education, teaching staff need to increase student learning interest in learning methods and interesting teaching media. Campus parties are more selective in choosing undergraduate students to give less good scholarships, so that the scholarship is right on target and can be used with the best, the family is expected to ask more frequently about the achievement of student learning and supervise the association of students so as not to fall into bad acts which if done continuously can be a bad habit of students, students should be smarter to mambagi time between the time to learn and play.

**Keyword:** internal and external factors in learning achievement

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## I. INTRODUCTION

One of the objectives of the teaching and learning process is the change of behavior in both the aspects of knowledge (cognitive), attitude

aspects (affective), as well as psychomotor aspects. One of the cognitive aspects of student changes can be seen from the achievement index obtained. The achievement index



is used as a benchmark of student academic mastery. The better the student's academic mastery then the achievement will be good too. Achievement of student academic achievement is influenced by factors both from within students (internal factors) and factors from outside the student self (external factors).

According to the observations made, the students of the Unpas class of 2015 came from outside of Bandung, from 100% of the students who entered Unpas 20% to 25% came from Bandung and the rest came from outside Bandung. Students who come from outside the city of Bandung in general have the freedom to manage their own eating patterns, rest time, play time, and organize. Parents can not intensively supervise, so the students can arrange themselves according to their will and needs. Students who live far away with parents, with poor family backgrounds may be affected by promiscuity because of the circumstances surrounding Unpas that support it.

Some of the students chose to study at Unpas not as a first choice and some are not interested in education. Interests that affect the pattern of student actions during the lecture, concentration of attention of students during receiving the course materials, also in doing the tasks given lecturers. Students with low interest also have low motivation. With low motivation, students do not have the motivation to like the lecture material so it will feel difficulty receiving and mastering accounting courses whose theories tend

to be complicated and require a lot of calculations.

Campus environment where students of Unpas Faculty of Teacher Training and Education of study located in the middle of the city make students tend to prefer to relax and more take the time to relax enjoy the crowds of Bandung compared with having to learn. The academic and non academic facilities at Unpas which still have limitations make the students less able to develop their self potential and creation so that problems arise related with the achievement of their learning achievement.

Based on the phenomenon in Unpas as mentioned above, it can be seen that the achievement of student academic achievement can be influenced by several factors. Factors that can be divided into two, namely internal factors and external factors. Internal factors are factors that affect the individual in learning derived from the individual self itself such as health, interest, motivation. While external factors are factors that affect the individual in learning that comes from outside the individual self that is the family environment, campus environment, community environment.

Determined the factors above in this study because the factor is considered very dominant influence on student achievement. In learning, one factor can not have an absolute effect on learning achievement. According



Slameto (2010: 54) the factors that affect in learning can be classified into two, namely internal factors and external factors. Internal factors are factors that exist within the individual who is learning that consists of physical factors, psychological factors, and fatigue factors. External factors are factors that influence in learning that exists outside the individual consisting of family factors, school factors, and community factors.

## **II. RESEARCH METHODS**

### **A. Research Methods and Design**

This research method is descriptive. According Sugiyono (2008: 5) descriptive method is research conducted to determine the value of independent variables, either one variable or more (independent) without making a comparison, or connect with other variables.

The purpose of this descriptive study is to make a systematic, factual, and accurate description, description or painting of the facts and the relationship between the phenomena investigated (Nazir in Riduwan, 2010: 217). The research design is a research design used as a guide in conducting the research process. Design research will be useful for all parties involved in the research process, because the step, in conducting research refers to the design research that has been made.

Moh. Nazir (2008: 84) states that:

"The research design is all the necessary process in planning and conducting research".

According Sugiyono (2008: 18), explaining the research process can be concluded as follows:

1. Sources of Problems
2. Problem Formulation
3. Relevant concepts and theories and relevant findings
4. Research Methods
5. Develop Research Instruments
6. Conclusions

Based on the research process described above, the design in this study is described as follows:

### **B. Sources of Problems**

Researchers determine the problems as a phenomenon for basic research.

### **C. Formulation of the problem**

Problem formulation is a question that will be searched for answers through data collection. The process of discovery of the problem is the most difficult stage of research because the purpose of this study is to answer the problem of research so that a study can not be done well if the problem is not formulated clearly. The formulation of the problem or research question will affect the implementation of the next stage in the research phase.

### **D. Relevant Concepts and Theory and Relevant Discovery**

To answer the problem formulation, researchers can read the theoretical references relevant to the problem and thinking. Previous relevant research findings can also be used as material to provide temporary answers to research problems. Theoretical study has the purpose of constructing a toritic framework that forms the basis for answering 33 research questions or questions that are



the research stage by testing the fulfillment of rational knowledge criteria.

**E. Research methods**

To obtain purpose of the research the researcher can choose research method accordingly. In this study the research method used descriptive statistics.

**F. Develop Research Instruments**

After the appropriate research method is selected, the researcher can arrange the research instrument. This research instrument is used as a data collection tool. Instrument in this research form of interview or observation.

**G. Conclusion**

Conclusion is the last step of a research period in the form of answers to the formulation of the problem with emphasis on solving problems in the form of information about problem solutions useful as a basis for decision-making.

**a. Population and Sample Research**

Population in this research is student of class of 2015 Economic

Produce FKIP Unpas which amounts to 75 students.

**b. Variable Operationalization**

The variables in this study are divided into two main categories namely independent / independent variables are the variables that affect the dependent variable. While the dependent variable / dependent is the variable that arise due to the independent variable or the response of the independent variable.

The independent variables in this study are internal and external factors (as variable X) is the sum of all living and dead objects and all the conditions that exist in formal education institutions that systematically implement educational programs and help students develop their potential. While the dependent variable is in student achievement (as variable Y).

**Table 1**  
**Variable Operational**

Variable	Dimensions	Indicator
Analysis of Internal and External Factors In Student Learning Achievement	Internal factors	1) Factor of intelligence
		2) Factor of motivation
		3) Interest factors
		4) Attitude factors
		5) Talent factors
Student Learning Achievement	Eksternal factors	1) Community environment
		2) Family environment
		3) Campus environment
		4) The natural environment
		5) Instrumental environment
	Student achievement	Student IPK of economic education FKIP Unpas



**c. Data Collection Plan**

To obtain the data that the author needs, and considered relevant to the problems that the author thoroughly, the authors use data collection techniques documentation study, questionnaires, and observation.

Validation test is intended to test the extent of the measuring instrument in this case the questionnaire measures what it wants to measure. Validation test is done by correlating each item score with total score. Grains that have a positive correlation with a total score and a high correlation indicate that the grain has a high validity as well. The minimum requirement is valid for the research variable is  $r = 0.30$ .

**III. RESEARCH RESULT**

**a. Test Validity and Reliability Research Variables**

**Validity Testing**

**Table 2**

**Test Validity Variable Internal and Internal Factors In Student Learning Achievement**

Item	r correlation	r critical	Information
1	0.796	0.3	Valid
2	0.421	0.3	Valid
3	0.309	0.3	Valid
4	0.783	0.3	Valid
5	0.358	0.3	Valid
6	0.402	0.3	Valid
7	0.612	0.3	Valid
8	0.833	0.3	Valid
9	0.311	0.3	Valid
10	0.673	0.3	Valid
11	0.607	0.3	Valid
12	0.378	0.3	Valid
13	0.783	0.3	Valid
14	0.715	0.3	Valid
15	0.432	0.3	Valid
16	0.764	0.3	Valid
17	0.769	0.3	Valid
18	0.771	0.3	Valid
19	0.576	0.3	Valid
20	0.32	0.3	Valid
21	0.363	0.3	Valid



Item	r correlation	r critical	Information
22	0.713	0.3	Valid
23	0.783	0.3	Valid
24	0.511	0.3	Valid
25	0.673	0.3	Valid
26	0.355	0.3	Valid
27	0.337	0.3	Valid
28	0.785	0.3	Valid
29	0.468	0.3	Valid
30	0.503	0.3	Valid

Based on the result of the validity test, it is known that in the discipline variable and the performance of all items are valid because the correlation r value is greater than the critical r (eg  $0.796 > 0.30$ ).

### **Instrument Reliability**

Reliability analysis is one of the main characteristics of a good measurement instrument. Reliability is often referred to as trustworthiness, reliability, sharpness, consistency and so on, but the central idea in the concept of reliability is the extent to which the results of a measurement can be trusted.

The high degree of reliability is empirically addressed by a number called coefficient reliabilitas, although theoretically the coefficient ranges from 0.00-1.00 and can also be positive (+) negative (-). In terms of reliability, a coefficient of magnitude less than zero (0.00) is meaningless because the interpretation of reliability always refers to a positive coefficient.

In this research used Alpha Cronbach reliability measurement method, with criterion of magnitude of

reliability coefficient must be at least fulfilled by a measuring instrument is 0.70 which means that the overall measuring tool has a consistency that can be relied upon. From result of data processing known that its reliability value:

**Table 3**  
**Value Reliability Variable Internal and External Factors in Student Learning Achievement**

Value	Reliabel
0.909	Reliabel

The reliability value gives an indication that the reliability of the questionnaires used in non-physical work environment variables and employee performance as a measuring tool is included in the strong correlation r category because the value is greater than 0.7.

### **b. Internal Factor Of Student Learning Achievement**

The Internal Factor Dimension in Variable Internal and External Factors in Learning Pretation is measured using 15 items of statement. Here is the distribution of responses of respondents to the statement items on the Internal Factor Dimension:





**Table 4**  
**Respondents Response Against Item Statement On Internal Factor Dimension**

No Item	Question	Respondent Answer					Category
		Strongly Disagree	Disagree	doubtful	Agree	Strongly Agree	
1	Utilization of Leisure Time To Learn	9	13	15	22	16	Pretty Good
2	Learn Minimum one Hour a Day	6	4	5	46	14	Good
3	Following Learning Activities On Campus Until Finished	0	1	6	62	6	Good
4	Have Schedule to Learn In Implement	0	17	29	19	10	Pretty Good
5	Learning Diligently To Get High IPK (Above 3.00)	0	0	11	52	12	Good
6	Following Tutoring Outside Campus	0	67	0	8	0	Not Good
7	Following The Course With Full Attention	0	0	23	44	8	Good
8	Following the News About Economic education and Accounting Development	0	22	14	24	15	Good
9	Always Following Courses on Economics education study program	0	0	6	55	14	Good
10	Always Following Course on Economic Education Study Program	0	0	0	59	16	Good
11	Have Books Associated With Courses Economics education courses	0	0	17	46	12	Good
12	Always doing thesubject matter of the course of economic education	0	0	31	40	4	Good
13	Can do the exam well	0	17	29	19	10	Pretty Good



No Item	Question	Respondent Answer					Category
		Strongly Disagree	Disagree	doubtful	Agree	Strongly Agree	
14	Studying lecture material that is not understood	0	0	32	39	4	Good
15	Understand the courses of economic education course seriously	0	0	23	42	10	Good

**c. External Factors Of Student Achievement**

The Dimensions of External Factors in Variable Internal and External Factors in Learning Pretation are measured using 15 items of statement. Here is the distribution of responses of respondents to the statement items on the External Factor Dimension:

**Table 5**  
**Respondents Response Against Item Statement On Internal Factor Dimension**

No Item	Question	Responden Answer					Category
		Strongly disagree	Disagree	doubtful	Agree	Strongly agree	
1	College friends can be invited to learn together	0	15	28	16	16	Pretty good
2	College friends have an interest to always follow the course	0	16	25	26	8	Good
3	A close friend who is relied on when I'm having trouble	0	16	29	20	10	Pretty good
4	Parent income more than Rp. 2.000.000, -	0	0	14	45	16	Pretty good
5	Living in a house of his own	0	44	0	31	0	Not Good
6	My monthly allowance is over Rp. 1.000.000, -	0	12	0	63	0	Good
7	The condition of the table and chairs for study is sufficient	0	16	33	20	6	Pretty good
8	The whiteboard and marker conditions are sufficient	2	16	25	24	8	Pretty good



No Item	Question	Responden Answer					Category
		Strongly disagree	Disagree	doubftul	Agree	Strongly agree	
9	The library is complete	0	12	49	10	4	Pretty good
10	The cool air makes me comfortable learning	0	0	0	59	16	Pretty good
11	During the rainy season I keep the spirit of going to campus	0	50	17	8	0	Not Good
12	Hot air does not concentrate on lectures	0	0	0	52	23	Good
13	Infocus si sufficient	3	13	31	18	10	Pretty good
14	Course books and stationery are sufficient	0	0	2	65	8	Good
15	Computers and calculators are sufficient	0	0	0	65	10	Good

**d. The Most Dominant Factors On Student Learning Achievement**

Based on the results of research and discussion about internal factors and external factors in the achievement of student learning class 2015 FKIP Pasundan University of

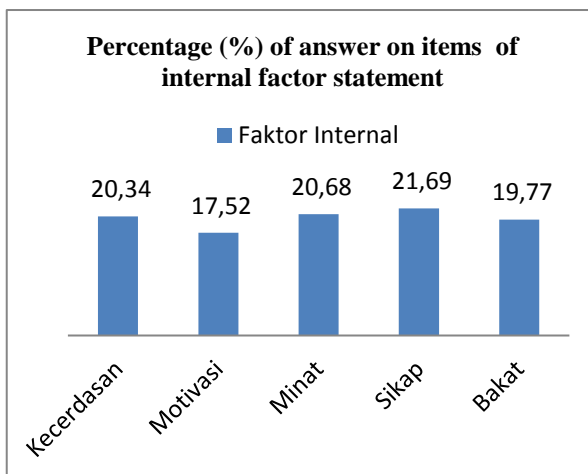
Bandung, it can be concluded that internal factors are more dominant in student achievement than on external factors. The average item on the internal factor dimension is in the "Good" category aimed at a weighted average of 271.73 out of 375 or 72.46%.

**Table 6  
Average Internal Factor Emission Factor**

Internal factors	Amount of weighting	Average	Percentage (%)
Intelegence	829	276.33	20.34
Motivation	714	238	17.52
Interest	843	281	20.68
Attitude	884	294.67	21.69
Talent	806	268.67	19.77
Amount	4076	271.73	100

*(Data source: result of data processing)*





(Data Source: result of data processing)

**Figure 1**

From Figure 1 it can be concluded that the most dominant internal factors play a role in student achievement is the attitude factor that is with the total percentage of 21.69%, and the motivation factor that at least play a role with the total percentage of 17.52%.

"Good" category shown in average weight of 262.87 from 375 or 70.1%.

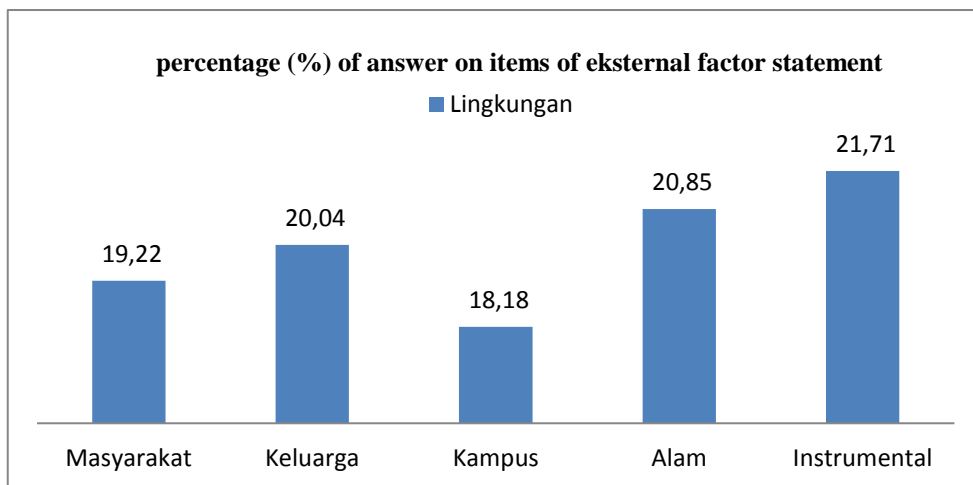
While the average item on the external factor dimension is in the

**Table 7**  
**Average External Factor Statement Item**

Eksternal Factors	Amount of weighting	Average	Percentage (%)
Community	758	252.67	19.22
Family	790	263.33	20.04
Campus	717	239	18.18
Nature	822	274	20.85
Instrumental	856	285.33	21.71
Amount	3943	262.87	100.00

(Data source: result of data processing)





(Data Source: result of data processing)

**Figure 2**

From the figure, it can be concluded that the most dominant external factor plays a role in the student's learning achievement is the instrumental environment factor that is the total percentage of 21.71%, and the campus environmental factors that least play a role with the total percentage of 18.18%.

From table 6 and table 7 it can be concluded that the internal factors become the most dominant factor in the success of students of the year 2015 Prodi. Accountancy FKIP Pasundan University in learning achievement.

#### **IV. CONCLUSION**

Based on the results of research and discussion of internal factors and external factors in the achievement of learning student class 2015 FKIP Pasundan University of Bandung, it can be concluded as follows:

1. Internal factors have a positive impact on student achievement

2. External factors have a positive impact on student achievement class of 2015 Prodi. Accounting FKIP Pasundan University.
3. Internal and external factors both have a positive impact on student achievement, but internal factors are more dominant to the success of student achievement class of 2015 Prodi. Accounting FKIP Pasundan University

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## **ATTITUDE LEARNING AND EFFECT ON STUDENT LEARNING ACHIEVEMEN IN THE COURSE FEASIBILITY STUDY IN ECONOMIC EDUCATION FKIP UNPAS**

Sri Marten Yogaswara<sup>1</sup> Leni Maryani<sup>2</sup>

<sup>1,2</sup> Majors of Economic Education Pasundan University

<sup>1</sup> myogaswar@unpas.ac.id <sup>2</sup> lenimaryani@unpas.ac.id

The study aims to evaluate the learning in the course of Feasibility Study in Majors of Economic Education Faculty of Teachers and Education Pasundan University, so that the students perceptions of learning attitudes during learning and their influence on learning achievement are known. Through this research, lecturers can make various learning improvements in future learning that focus on developing behavior, attitude, skill, knowledge (BASK). The research method used is descriptive and associative causal. The population is 122 students and comes from the students of Economics Education who in the academic year 2014/2015 contracted the feasibility study. The sample size is 41 students who act as research respondents. The result of the study showed: 1) 41.46% of students had positive learning attitude, while the rest of 29.27% had negative learning attitude, and 29.27 had neutral learning attitudes. 2) The influence of learning attitudes toward student achievement in the course of Feasibility Study in majors of Economic is 47.9%. Generally, the results of the study show that the learning process conducted through the learning strategy used in the course of Feasibility Study has not achieved maximum results in fostering behavior, attitude, skill, knowledge (BASK) students. Suggestions for subsequent learning are the need to improve the quality of planning and implementation of learning.

Keywords: Learning attitudes and their influence on learning achievement

### **I. INTRODUCTION**

Studying in universities is essentially a process that enables the various potentials that exist in students to interact actively with lecturers, other students, learning materials, and with the learning environment as a whole. About learning, Wetherington in Purwanto (1987: 86) states that learning is a change in personality and expresses itself as a new pattern rather than a

reaction in the form of skills, attitudes, habits, intelligence, or an understanding. That opinion implies that behavior will change because it learns about various aspects of personality, whether physical or psychic, such as: change in understanding, thinking pattern, knowledge, skill, skill, habit, and attitude. The success of learning, among others, is determined by the



attitude of student learning in utilizing various potentials and conditions that affect the learning activities. Krech, et al (1962: 139) states that attitude is a settled system of judgment, whether positive or negative, feeling, emotion, pro and con tendencies toward social objects. Natawidjaja (<http://hariosmart.blog-spot.co.id/2013/09/sikap-dan-kete-rampilan.html>) states that attitude is a person's readiness to act on an object in which the readiness is cognitive, affective, and tendency to act. Readiness itself is a positive and negative judgment with varying intensity for a certain time, the readiness itself can be fickle.

Noting the above opinion, then the attitude possessed by a person against an object is essentially not a congenital origin. That is, the attitude is not taken when the person is born. Therefore, sikap belajar yang dimiliki oleh mahasiswa pun akan berbeda satu dengan lainnya. Similarly, the utilization of factors and conditions that affect it. Thus it can be stated that the learning achievement will be realized if supported by a positive attitude / good learning. Conversely, if students are negative learning then the resulting learning achievement tends to be unsatisfactory.

Concerning the components of attitude, Krech, et al (1962: 142) states that attitudes contain three components: cognitive, emotional (feeling) which some are expressed as affective elements, and the tendency to act or by some other experts is expressed as behavioral. Associated with student learning attitudes, then the attitude component will show the following symptoms:

1. The cognitive component in attitudes is indicated by the individual's belief in the object, the understanding and possession of the knowledge related to the object. The attitude of the students is shown by the efforts they have made to understand the lecture materials and the purpose and objectives of the lectures.
2. Components of feelings (emotions) in attitudes are shown in the form of pleasure or dislike, likes or dislikes attitude objects. In showing his feelings, students will respond in the form of questions, ask for explanations and other learning activities to action to not respond at all. The presence of responses and the lack of response indicates a student's feelings at a happy or displeased level, interested or uninterested in the object.
3. Component tendency action is done by giving a positive attitude in the form of support to the implementation of teaching and learning process by following the process of teaching and learning in an orderly manner, trying to maximize the tasks assigned, or even be negative in the form of:
  - a. Do not follow learning deliberately
  - b. Students follow the learning, but acts inhibit the teaching and learning process held
  - c. Students follow the learning in an orderly manner but never do the tasks given

The course of Feasibility Study is an intracurricular course and is included in the Working Skills Course (MKKB). Therefore, every student of Economic



Education Study Program must follow the course. In general, this course fosters the skills and understanding of student scholarship. Through the course of Feasibility Study, each student is expected to:

1. understand the principles of conducting a feasibility study;
2. have basic knowledge of designing feasibility studies;
3. have knowledge to analyze aspects of feasibility study;

Achievement of course goals will feel heavy when the attitude of students who view the course as a complementary subject so as not to get special attention. This condition will be more severe if the lectures are given by lecturers who lack the competence of teaching, facilities for teaching and learning activities are minimal, institutional policies that prioritize quantity rather than quality, and low learning motivation of students in achieving learning. To anticipate this, it needs an integrated handling and various efforts that lead to the realization of qualified and professional graduates. One aspect that needs attention in order to realize a qualified graduate is learning activities. In every learning, lecturers are always required to be able to function as an informer, organizer of teaching and learning process, motivator and dynamicator, conductor, director, moderator, facilitator, catalyst, as well as an objective evaluator.

In every learning, lecturers are always required to be able to function as informer, organizer of teaching and learning process, motivator and dynamicator, conductor, director, moderator, facilitator, catalyst, as well

as an objective evaluator. In an effort to fulfill the functions of lecturers as mentioned above, the researcher tries to implement the learning in the course with the following strategy:

1. Independent activities, ie activities in which students are asked to be active in groups of 3 to 5 people to search for lectures that systematikanya been designed in the form of syllabus and Unit Events Course (SAP) by lecturers pengampu lecture. The search for teaching materials is based on the order set out in the syllabus and SAP, and takes place outside the lecture time. The search for materials / teaching materials can be done in the library, through the group discussion of the students concerned.

The independent activities of a group of lecturer students are intended to be critically and fully investigative of the analysis of enrichment, thereby stimulating the activity of groups or individuals within the group to openly seek for themselves the intended material. This self-study activity ends with the preparation of the group's findings report in the form of short papers that should be presented in advance of the class. The expected implications of independent activities are:

- a. Students actively seek and discuss lecture materials that have been compiled in syllabus and SAP. Students are not glued to the giving of material from lecturers when the face of progress takes place, but first try to prepare, recognize, and even



- understand the material to be given during the lecture takes place.
- b. Lecturers avoid the "teacher oriented" teaching method.
  - c. Opening wide of opportunity to implement material content / lecture materials.
  - d. Changing learning attitudes becomes a positive learning attitude filled with learning activities.
  - e. Through brief papers, lecturers can measure the extent to which the study / discussion groups have critically interpreted the problem points of the lecture program units that have been designed. For the purpose of evaluation, the depth of discussion on the paper becomes one of the elements of student achievement assessment overall.
2. Structured Activity, that is activity which is follow up from independent activity. The student group on duty is asked to present the findings on independent activities in front of the class. With certain arrangements, each member of the presenter group is required to bring the material in front of the class like an educator (Teacher). Therefore each group that will present the material should prepare and organize the group as well as possible. Through the presentation of each group member, it is expected that there will be no inactive group members at the time of the independent activities, because each group member has an individual task. The objectives to be achieved from structured activities are:
- a. students are able to process and communicate techniques in front of the class to their friends;
  - b. students are able to apply knowledge of Teaching and Learning Strategy (SBM), Teaching Planning (PP), and knowledge of education evaluation that has been studied;
  - c. the creation of the habit of using learning aids / media. Each student group member is required to use teaching aids / media when they perform / present the material. The creation of the habit of using the tools in the learning process is an important provision for LPTK students.
  - d. In addition to not referring to "Teacher oriented", lecture material can be presented with varied models, approaches, strategies, methods, and learning techniques. This condition can foster attitudes, creativity, and respect for responsible freedom of expression.
  - e. In order to develop academic freedom, other lecture / student participants can ask questions about the material presented by the presenter group. In this way, there is a critical critical opinion opportunity in the classroom.
3. Face-to-face activities, namely the activities of lecturers to broaden their horizons. This activity takes place after the presenter group has finished presenting the material (including question and answer between the participants of the other lectures / students with the presenter group), or when the members of the presenter group perform structured



activities but the presentation of the material is deemed less appropriate to the lecture material that has been set in the lecture unit. In addition to broadening the horizons, lecturers are obliged to answer questions from lecture participants that have not been answered well by the renderers group.

The duty of the lecturer at this stage is to clarify, expand the views and insights around the lecture material based on SAP that must be taught on that day, correct the inappropriate opinion, and discuss the things that need further study. The benefits of face-to-face activities include the expansion of the insights of a single point of view, and the creation of a comprehension of the lecture material as a whole from the set of material that is the subject. However interaction techniques performed by students, moral responsibility for the teaching and learning process remains on the lecturer as the person in charge of the course.

Through improvisation technique of learning method, there are some positive implications in the framework of coaching behavior, attitude, skill, knowledge (BASK), namely:

1. Student behavior patterns, among others:
  - a. The ability of reason to find materials developed through group discussion on independent activities. The formation of this behavioral pattern is produced by students in the form of critical ability of analysis on the material to be presented. They prepare the material with great care and precautions so as not to

disappoint other groups and be able to explain / explain the material well and optimally.

- b. Ability to improve behavior patterns during presentation and answer questions.
2. Improve personal attitudes (attitude)

A student presenter in front of the class is required to be "correct", to be polite, and to act and act interesting in the presentation of the material. This condition will develop positive attitudes in students, including learning attitudes, such as :

- a. Communicative attitude that should be done when making a student presentation.
  - b. A more positive attitude of learning, because in the independent activities of each individual is required to master the material to be presented. Both students who will present materials and other students are required to prepare themselves before structured and face-to-face activities take place.
  - c. Open attitude and unselfishness in answering or concluding the results of discussion.
3. Improved skills (skills)

The implications of the use of teaching methods tested on improving student skills include:

- a. Skills summarize the results of the discussion
- b. Skills in preparing the paper according to the stipulated requirements.
- c. Skills to perform / presenting the material in front of the class in the form of "skill of communication"





- d. Skills on setting up a hearing aid (visual aid, instructional tool) that can facilitate material absorption.
  - e. Skills to answer questions and understand the meaning and purpose of the questions asked.
4. Improved material, science, insight (knowledge)

By studying the various sources of bibliography required in the syllabus and SAP, along with prudential attitude in anticipating what will happen during presentation time, the student is expected able to collect the presentation material as complete as possible. Therefore it is very important and very useful to collect information as complete and latest as possible, even scientific (scientific).

Through the above scenarios learning is expected to function as a lecturer as an informer, organizers of teaching and learning process, motivator and dynamicator, conductor, director, moderator, facilitator, and catalyst can be fulfilled. Another thing that needs attention is the attitude of student learning directed in such a way that students are relatively more active in utilizing all the potential they have. In this way it is expected that every student has a positive attitude of learning.

In the framework of learning evaluation conducted, researchers then formulate the following research problems:

1. What is the attitude of student learning Economics Education Program on learning subject of feasibility study?
2. How big is the influence of learning attitudes toward student

achievement on the feasibility study course ?.

## II. RESEARCH METHODOLOGY

The research method used is causal associative method. The use of this method is intended to detect the elements that can provide a picture of the ownership of learning attitudes of students who become the population, to then studied its influence on the achievement of learning achievement.

The study population is the students of the participants of the Feasibility Study Course on Economic Education Study Program at the Faculty of Teacher Training and Education (FKIP) Pasundan University Academic Year 2014/2015 and all its characteristics. The population is 122 students divided into 2 classes, namely class A and class B. Of the number is taken a random sample of 33.33% or as many as 41 students.

The data collection instrument used is a questionnaire with an attitude scale equipped with five possible answers: Frequently (SS), Frequent (S), Sometimes (K), Rarely (J), and Rarely Once (JS). The scoring criteria are based on positive statements and negative statements, as shown in the following table list:

Table 1  
Scoring Criteria Scale Student Learning Attitude

Type of question / statement	Possible answers				
	SS	S	K	J	JS
Positive	5	4	3	2	1
Negative	1	2	3	4	5





Data analysis technique used is percentile (Sudjana, 1982: 83):

$$P_i = b + p \left[ \frac{\frac{\text{in}}{100} - F}{f} \right] \text{ where:}$$

Grouping is done by scores range and percentage as follows:

$$P_1 - P_{30} = \text{negative}$$

$$P_{31} - P_{69} = \text{neutral}$$

$$P_{70} - P_{100} = \text{positive}$$

To determine the effect of learning attitudes toward learning achievement used the test through simple linear regression determination where the processing is done with the help of SPSS. Criteria for hypothesis testing (Singih Santoso, 2001: 336) are:

1. Based on the probability:
  - a. Accept  $H_0$  if probability > 0.05
  - b. Reject  $H_0$  if probability < 0.05
2. Based on statistics
  - a. Accept  $H_0$  when t count < t table
  - b. Reject  $H_0$  when t count > t table
  - c. t table = 2.42

### III. RESEARCH RESULTS AND DISCUSSION

#### 1. Student Learning Attitudes of Economic Education Programs On The Elements of Feasibility Study Course

##### a. Research Data Research

Table 2

List of Distribution Frequency Score Attitudes Student Learning

Participants Feasibility Study Course in Majors of Economic Education FKIP Pasundan University

Student Learning Attitude Score	Frequency
163 – 167	4
168 – 172	7
173 – 177	5
178 – 182	7
183 – 187	6
188 – 192	8
193 – 197	4
<b>Total</b>	<b>41</b>

Source: Results of data processing

$$P_{30} = 172,5 + 5 \left( \frac{\frac{30 \times 41}{100} - 11}{16} \right) = 172,91$$

$$P_{70} = 182,5 + 5 \left( \frac{\frac{70 \times 41}{100} - 23}{29} \right) = 183,48$$



**Table 3**  
**Criteria for Student Attitudes Participant Subject Feasibility Majors of Economic Education Accounting FKIP Unpas**

Criteria	Categories	Range of scores	n	Percentage
P <sub>1</sub> – P <sub>30</sub>	Negative	163 – 173	12	29,27
P <sub>31</sub> – P <sub>69</sub>	Neutral	174 – 183	12	29,27
P <sub>70</sub> – P <sub>100</sub>	Positive	184 – 197	17	41,46

Source: Results of data processing

Considering the results of data processing in the table above seen almost half (41.46%) students who follow the course of Feasibility Study at Economic Accounting Study Program at FKIP Unpas be positive to the eyes of Feasibility Study, while the rest are negative and neutral attitude.

**b. Discussion**

Approach of teaching and learning activities used in the course of Feasibility Study including to approach "non teacher oriented". The implication is that students must change their learning strategies and habits. In this approach, students are required to prepare, study, and understand the course material before the lecture takes place. The existence of this demand for some students raises a negative attitude in learning, or "wait" attitude. In addition, the necessity to present lecture

materials as well as teaching activities causes some students to feel less confident in formal communication skills in front of the class, so there is a tendency of students to be passive.

On the other hand, the learning approach used encourages some students to show their individual abilities and advantages. They feel challenged to practice the knowledge and knowledge they have acquired. Students who are able to be positive on the study of Feasibility Study can be predicted by the students who have understood and are well aware that he is being trained to become a professional manpower by FKIP Unpas. They use presentation opportunities at the Feasibility Study course as a vehicle for drawing on teaching experience before doing teacher training in micro teaching or in school.

**2. The Influence of Learning Attitudes to Student Achievement Achievement On Eligible Feasibility Study Course**

**a. Research Data Research**

Data processing with simple linear regression shows the following results.

**Table 4**

**Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	-7.134	1.693		-4.213	.000
	SIK_BEL	5.613E-02	.009	.692	5.993	.000

a. Dependent Variable: PRES\_BEL



Table 5

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.692 <sup>a</sup>	.479	.466	.57

a. Predictors: (Constant), SIK\_BEL

b. Dependent Variable: PRES\_BEL

**b. Hypothesis testing**

1) Hypothesis test criteria:

a) Based on probability:

(1) Accept Ho when probability > 0.05

(2) Reject Ho if probability < 0.05

b) Based on statistics

(1) Accept Ho when  $t$  arithmetic <  $t$  table

(2) Reject Ho when  $t$  count >  $t$  table

(3)  $t$  table = 2.42

2) Decision:

Judging from the probability it is seen that the probability value of 0.000 (sig 0.000 table 4) is smaller than the rule of 0.05 so it can be stated that the student's learning attitude has an effect on student achievement.

Statistically it can be seen that  $t$  hitung (5,993) is bigger than  $t$  table (2.42) and hence can be stated that student's attitude influence student achievement.

The influence of students' learning attitudes toward student achievement in the subject of Feasibility Study is 0,479 or 47,9%, while the rest (51,1%) is influence from aspect outside aspect studied.

**c. Discussion**

Attitude serves as a self-defense, object recipient, assessor of the situation, and as a ministry. These functions emphasize that attitudes have a power to deal with the outside world so that individuals can adapt to the environment according to their needs.

Related to positive attitudes in learning and learning approaches used in the course of Feasibility Study, students are implicitly fostered to improve:

- 1) the ability of reasoning by searching, finding, and discussing lecture material before the lecture takes place. This effort can improve the ability to analyze critically so as to encourage understanding of lecture materials;
- 2) the ability to communicate in accordance with the demands of the world of education. Students are encouraged to be able to explain the subject matter to other students, and therefore they must first understand the material to be explained;
- 3) the ability to use various teaching methods and instructional media in accordance with the characteristics of the subject matter. To be able to use appropriate teaching and media methods, students are required to



understand the material to be explained in front of the class.

- 4) understanding of lecture material based on discovery, discussion, question and answer, problem solving, and face to face with lecturer.

The above matters are believed to help the students understanding of the lecture materials so that directly or indirectly will affect their achievement achievement

#### **IV. CONCLUSIONS AND RECOMMENDATIONS**

##### **A. Conclusion**

1. Almost half (41,46%) student of Economic Education Study Program at FKIP Unpas have positive attitude toward the lecture material presented in the course of Feasibility Study
2. There is influence of learning attitudes toward the achievement of the students' achievement of the subjects of Feasibility Study in Economic Education Study Program at FKIP Unpas

##### **B. Suggestions**

1. In an effort to cultivate a positive attitude of learning, lecturers in a subject should understand the true difficulties of students in utilizing the potential they have. Therefore every lecturer should understand the correct function of guidance and counseling.
2. Lecturers should be full of initiative and creative in conducting the Teaching and Learning Process (PBM), so that PBM can take place with interesting and inspiring interest of students to be positive learning.

3. The appointment of a lecturer in a course should be based on the competence required by the course.
4. Institutions should establish a proportional policy in determining the direction of teaching and learning activities. Priorities that prioritize quantity should be gradually transformed into priority that prioritizes quality.
5. In order to create a positive attitude of learning, institutions should carry out an integrated handling that involves all potential, especially lecturers owned by the institution. This integrated handling will create the condition of graduates of qualified and professional institutions in their fields.

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# THE ROLE OF SCHOOL IN DEVELOPING SMART CONSUMERS' CHARACTERISTICS THROUGH HABITUTATION

Mela Darmayanti  
PGSD FKIP Unpas, Bandung Indonesia  
*meladarmayanti@gmail.com*

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**Abstract.** Students' consumption pattern influences both themselves and environment. This article reflects an education that becomes a mean in constructing characteristics. One of the characteristics is smart consumers, that is consumers who are healthy and enviromentally friendly (eco-friendly). A healthy consumer is someone who is smart in choosing food for himself and the eco-friendly consumer is someone who is concerned about the impact of consumption on the environment. These characteristics can be used as a foundation in behaving and supporting sustainable life. Sustainable development is an attitude in meeting the needs of the present without reducing the ability of future generations to meet their needs. The method used in this paper is the literature study. Through habituation started from the school environment, it is expected that smart consumer characteristics can be realized so that the expected Indonesian people can be realized in accordance with the predetermined educational goals.

**Keywords:** Smart Consumer, Character, Sustainable Consumers

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## I. INTRODUCTION

One of the characteristics as a living creature is that everyday human cannot be separated from using goods and services to meet their needs. Therefore, being a consumer becomes the branding of every human being and human has unlimited needs. The consumption pattern of each period continues to experience development or change in line with the development of the era itself. However, these developments tend to be in the wrong direction.

Indonesia is the fourth largest country in the world after China,

India and America. Based on data taken from Central Bureau of Statistics (BPS), the population of Indonesia in 2010 reached 237,641,326 inhabitants, while according to the CIA World Factbook 2013 population of Indonesia reached 251,160,124 people or 3.5% of the World Population. With such a high population, Indonesia becomes one of the world potential market country, because the Indonesian people tend to be consumptive. Consumptive here is defined as buying or using something not because of the need but to fulfill desire. So it is not something suprising to see a new product to be



sold or marketed successfully in Indonesia.

The problem that arises at this time is that the environmental damage continues to increase; one of the causes is the consumption style that tends to be environmentally unfriendly. Environmental damage occurs in quality and quantity. In quality, the kind of damage appears in some problems such as decreasing quality of water in various areas, air pollution, and soil pollution. As in quantity, the occurrence of forest destruction that mostly due to humans, among others, logging and shifting land for agriculture or plantation which would certainly endanger the human itself as causing floods and landslides.

In contrast to the trend of the world where consumers are more likely to have environmental awareness, so that implicate the products they buy or their consumption, Indonesia has not yet been so. As presented by Hadi Irawan, Chairman of Frontier Consulting Group, one of Indonesian consumer characteristics is that they have a low awareness attitude toward the environment.

Besides having a low awareness of the environment, Indonesian consumers tend not to be a smart consumer for themselves, including in elementary school environment. Lifestyle is one of the aspects that affect less intelligently in consuming goods.

The lack of intelligence in choosing the goods can lead to negative things. If we see news in electronics or printed media, many of elementary school children experience food poisoning due to eating unhealthy foods. As I quoted from [tribunnews.com](http://tribunnews.com), as many as 21 students were rushed to health centers due to food poisoning. In the news portal, one of the parents of the victim stated that her child came home feeling nauseous and dizzy after school, then vomited and followed by defecation.

Some foods sold to elementary school children tend to be cheap with less health and hygiene. Among these foods are fast foods with preservatives, food or beverages with striking colors and excessive sugar and foods that have passed the expire date which of course can endanger health.

This is in line with the results of research conducted by YLKI stating that there are still many food snacks that use chemicals prohibited for food. The cause is irresponsible business actors wanting only profits in an easy way, as well as ease of obtaining various hazardous chemicals.

From the above description, it can be concluded that the problems experienced by humans as consumers are deficiency in environmental awareness and intelligence in selecting healthy food. One of the





causes of this to happen is lack of character education, as it is rare in schools to familiarize students to practice healthy choosing, because at this time education tends to emphasize only the intellectual.

## **II. LITERATURE REVIEW**

Smart consumer referred to in this paper is a healthy and eco-friendly consumer. Human in his daily life consumes in order to meet the needs of his life. Consumption is generally defined as the activity of using or spending goods and services. While the term consumer can be found in Law no. 8 of 1999 on Consumer Protection that defines that consumer is any user of goods and / or services available in the community, whether for self-interest, family, other people, or other living things and not for trading.

Healthy living is everyone's dream. Health can be achieved when one's lifestyle is healthy. Selective picking needs to be possessed by students; the skill of determining the food to be consumed based on several criteria.

Healthy is smart; smart in determining foods to be consumed and in a good way. Here are some guides by Zahir (2011) to be a healthy consumer:

1. Do not get used to eating snacks.  
Get used to have breakfast before leaving for school
2. Read the information on the packaging of processed food

products.

3. Wash fruits and vegetables before used.
4. Choose seasonal local fruit to avoid excessive chemical exposure.

In addition to students expected to be a healthy consumer, students need to be familiarized into environmentally friendly consumers or sustainable consumers (Sustainable Consumption). According to Fien et.al (2008) Sustainable Consumption is identified as:

1. Satisfying basic human needs (not the desire for 'wants' and luxuries)
2. Prioritizing quality-of-life concerns over material standards of living
3. Minimizing resource use, waste and pollution
4. Taking a life-cycle perspective in consumer decision-making, and
5. Acting with concern for future generations.

Based on the above definition, there are five activities that reflect as a sustainable consumption.

The first that humans have many desires and needs amid the tools of satisfying the limited needs. Therefore, it is necessary to teach students to use or buy something based on needs rather than desires. Secondly, prioritizing quality of life by considering the materials used to be in a good standard or environmentally friendly. Third, minimizing the use of natural



resources (non-renewable), reduce waste-generating things and pollution. Fourth, instilling a life-cycle perspective in making decisions as a consumer. Activities undertaken will have an impact on the proceeding life. The latter is to consume by not only pay attention to themselves but also to the attention of future generations.

The Ministry Of The Environment Norwegia 1994 (Fien et.al. 2008) defined Sustainable Consumption as:

“... the use of services and related products which respond to basic needs and bring a better quality of life while minimising the use of natural resources and toxic materials as well as emissions of waste and pollutants over the life cycle of the service or product so as not to jeopardise the needs of future generations”

The issue of changing consumption patterns has been widely discussed internationally. Like Earth Charter from Unisco in 2007; among the Earth Charter principles are:

1. Adopt patterns of production, consumption, and reproduction that safeguard Earth's regenerative capacities, human rights, and community well-being (principle no 7);
2. Integrate into formal education and life-long learning the knowledge, values, and skills needed for a sustainable way of life (principle no 14).

Based on these principles, the importance of integrating the curriculum in the daily life of the child begins with knowledge, skill and attitude that implies a sustainable way of life. Developing student empathy is another teacher's job. Not only empathy towards fellow human beings but to all aspects of life as mentioned by Goleman et al. (2012: 133) that empathy is for all form of life.

Students need to be familiarized early to be a healthy consumer and environmentally friendly because it is a mandate of the Act. Based on Law No. 20 of 2003 of National Education System, the goal of national education is to develop the potential of learners to become human beings who believe and pious to God Almighty, have a noble character, healthy, knowledgeable, capable, creative, independent, and become citizens of a democratic and responsible. The objective is an ideal formula describing the quality of Indonesian society. As for the implications, teachers need to design a learning experience that builds the value and character of the students that refers to the educational goals as a guide.

The purpose of education mentioned above is fully loaded with characters. The characters explained in the book of Pengembangan Pendidikan Budaya Dan Karakter Bangsa (2010: 3) is character, morality, or personality formed from



the internalization of various virtues that are believed and used as a basis for the worldview, think, behave and act. Among the characters that need to be developed are:

1. Caring for the environment, i.e. attitudes and actions in that one always seeks to prevent damage to the surrounding natural environment, and develop efforts to repair the already existing natural damage;
2. Responsibility, i.e. the attitude and behavior of a person to carry out his duties and obligations, which he should do, to oneself, society, environment (nature, social and culture), state and God Almighty.

In relation to the curriculum of 2013, character development is facilitated in Core Competencies (KI) 1 and 2. Implementation is directly

through Religion and Civics subjects. As for other subjects, it is imperative to develop values and character indirectly. The main purpose is to foster student behavior in the context of character building. As for efforts used to improve and foster an expected attitude in accordance with KI-2, teachers should provide continuous habituation and coaching both in learning and outside learning. At the elementary level of competence, it is expected to have honest, disciplined, responsible, polite, caring, and confident behavior in interacting with family, friends, and teachers.

Based on the above material exposure, I think there is a very close association of current student consumption patterns, the concept of sustainability with the legal basis of education in Indonesia. For more details, the linkage is as follows :

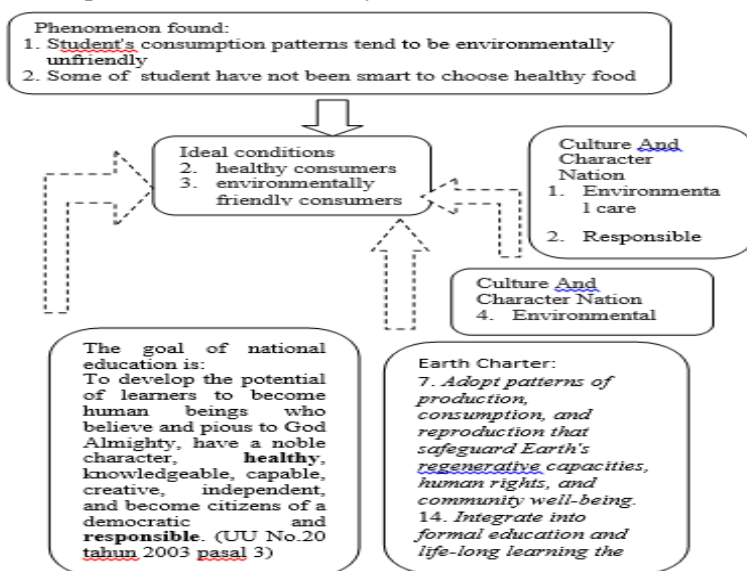


Figure 1 the concept of sustainability with the legal basis of education in Indonesia



Based on the exposure of smart consumers, the efforts that can be done by teachers through habituation are:

1. Reminding students to look at expiration dates as well as halal labels when buying a food (for Muslims);
2. Asking students to bring their own tumbler;
3. Minimalizing the use of plastic;
4. Walking to a near destination;
5. Using masks when going outside;
6. Turning off lamps when not in use;
7. Using both sides of paper when writing

Previous research has been conducted by Supriatna under the title of Developing Green Behavior trough Eco-pedagogy in social studies learning in elementary school in Bandung, Indonesia. The results of this study shown through eco-pedagogy approach in which it can increase of students' green behaviour, such us: (1) putting trash into trash can, (2) separating organic and anorganic waste, (3) reducing the usage of environmentally-unfriendly products, and (4) using public vehicles rather than privat vehicles.

It is expected that through continuous habituation, students can become smart consumers because the pattern of consumption or lifestyle will affect the health of students and affect the environment.

### **III. CONCLUSION**

Education has two main goals, namely to help students to be smart and excellent. Therefore, building the knowledge and character of students is the responsibility of educators. One character of students that need to be developed is a smart consumer in which becoming a healthy consumer for himself and consumers who are friendly to the environment. Smart consumers are in line with the goals of national education, cultural education and nation character, and earth charter principles. The development of these characters can be achieved, among others, by the habituation given to students starting from the school environment.

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## **BUILDING CHARACTER OF STUDENTS OF PROSPECTIVE BIOLOGY TEACHERS THROUGH BLENDED LEARNING METHOD ON EMBRYOLOGY COURSE**

Nia Nurdiani

Program Studi Pendidikan Biologi FKIP Pasundan University, Bandung, Indonesia  
*nurdiani-nia283@unpas.ac.id*

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**Abstract.** This study is aimed at testing the learning effectiveness of embryology course with blended learning method which combines the learning with interactive multimedia uploaded on Learning Management System (LMS) Moodle and accessed on the internet (e-learning) and in-class learning. The subject of the study consists of 50 students of prospective biology teachers attending embryology course. The characters to be built are discipline, learning independence, liveliness in discussions, and enthusiasm in learning. The data collection was conducted through monitoring students' learning activities accessing e-learning system and observing their learning behavior in the class. The result of the study shows high effectiveness on embryology learning with blended learning method on building characters of learning independence, enthusiasm in learning, and liveliness in discussions. However, the effectiveness on building the character of discipline is moderate.

**Keyword:** blended learning, character building, e-learning, embryology, prospective biology teachers

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### **I. INTRODUCTION**

Character education has been a concern in many countries in order to prepare quality generations, not only for individual interests of citizens of a country, but also for citizens as a whole. For over twenty years, the Student Leader Fellowship Program (SLFP) at Northern Michigan University (NMU) had helped students explore their values, develop a sense of purpose based on those values, and improve leadership skills necessary to initiate socially responsible action at the community level (Barch *et al.*, 2012). In Philadelphia, service-learning program is used as an instructional approach for learning curricular

objectives. Billig *et al.* (2008) showed that service-learning program could be an effective tool for reaching character education outcomes. A study in California showed that schools with higher total character education implementation tended to have higher academic scores on academic measures for the year prior to their application, the year of their application and the subsequent two years (Benninga *et al.*, 2003). Another study examined the effects of the living skills school-based intervention program as a method of improving school adjustment and the social lives of at-risk elementary school students. The results indicated that the participants of living skills





program showed improved functioning over time on all measures of school adjustment and social competency relative to a comparison group that did not receive the program (Prince et al., 2010).

Indonesia sees character education as the main strategy in achieving the national education goal, namely "to educate the nation and develop the people entirely, namely Indonesians who believe and devote to God Almighty and are virtuous, have knowledge and skills, have physical and spiritual health, have solid and independent personalities, and have a sense of responsibility in terms of society and nationality". Overall, the implementation of character education for all education levels in Indonesia has been declared in the Strategic Plan of Ministry of Education and Culture of 2010-2014. Furthermore, as a part of the National Movement of the Mental Revolution/*Gerakan Nasional Revolusi Mental* (GNRM) and in order to strengthen the character of learners, the government issues Presidential Regulation No. 87 of 2017 on Character Education Strengthening

Building characters is the embodiment of the development of values and attitudes that are formally implemented against learners in schools through indirect learning processes. In its practice, the development of values and attitudes are inserted across subjects and in each activity. According to Curriculum Center of National Education Department/ *Pusat Kurikulum Departemen Pendidikan Nasional* (as cited in Suryatini, 2011),

wich is reinforced by teh Presi-dential Regulation No.87 of 2017, there are 18 types of values in character building, namely: religiousness, honesty, tolerance, discipline, hard work, creativity, indepen-dence, democracy, curiosity, spirit of nationality, love of the country, achievement appreciation, friendliness/ communicative competence, love of peace, fondness for reading, environmental concern, social con-cern and responsibility. Building so many character values in learning processes is not an easy matter. Therefore, character build-ing requires appropriate specific methods for the purpose of education can be achieved. Character building has the mean-ing of cultivating habituation of good things so that learners become aware (cognitive domain) about which is good and wrong, able to feel (affective domain) good values and usually to do them (behavioral domain). Therefore, character building is closely related to habits or habits that are continuously practiced or done (Nuh, 2016). Among many learning methods. the appropriate ones are exemplary method, habituation method, and praise-and-punish-ment method.

Although teachers are not the only determinants of educational success, they are the central point of education in learn-ing processes. In this case, teachers are the actors who directly implement learning pro-cesses of their learners. Given the main learning method in character building is exemplary method, then a teacher is an example that should have character values that can be sensed by his/her



learners in their school lives. The ownership of a person's character values cannot be necessarily acquired, yet it requires habituation. Therefore, before becoming a teacher, getting a character building simultaneously is very important for a prospective teacher to develop the ownership of the values of his/her characters.

In addition to the demand of the ownership of character values, a teacher is also required to have four teacher competencies, namely pedagogical competence, personality competence, social competence, and professional competence. Septiani et al. (2016) suggests that if character values are implemented to the four teacher competencies, then prospective teachers will have good characters so that they have high competitiveness. The formulation of the implementation of character building in an attempt to improve the competence of prospective teachers is as follows: the character values which belong to the pedagogical competence are curiosity and fondness for reading; the character values which belong to the personality competence are religiousness, honesty, discipline, democracy, spirit of nationality, love of the country, environmental concern, and responsibility; the character values which belong to social competence are tolerance, achievement appreciation, friendliness/ communicative competence, love of peace, and social concern; the character values which belong to professional competence are hard work, independence, and creativity. Similar to the character

building in primary and secondary education levels, building character of prospective teachers at *Lembaga Pendidikan Tenaga Kependidikan (LPTK)* is also carried out in indirect learning processes, by inserting them in every course.

Embryology is one of the areas of study in Biology, which must be mastered by students of prospective biology teachers in LPTK in relation to the task that will be carried out in the future. In embryology lectures, the process of animal development is studied from the fertilized egg until the time of hatching or birth. The whole process of animal development from the zygote to the moment of hatching or birth is called embryogenesis. Embryogenesis occurs in a zygote that is not easily observed because of its relatively small size in which there are dynamic, complex events in three or four dimensional space (3-4D). This situation makes the abstract embryological concepts that are difficult to explain and understand. Thus, it is necessary to find an effective learning approach, which can concretize the abstract concepts of embryology, making it easier for students to build new knowledge of the information they acquire during learning. The learning approach is through lab work or practical work, but the practice in embryology learning is often constrained on the difficulty of providing materials in the form of original/fresh embryo preparations, as well as specific laboratory equipments.

Along with the times, the development of information



technology with computer devices has penetrated education area. Integrating this technology wisely into the learning methodology helps to facilitate and accelerate learners' understanding. In terms of embryology lectures, a blended learning method has been developed that incorporates self-learning through the access of teaching materials in the form of interactive multimedia via the internet (e-learning) with face-to-face learning in the classroom (Rusman et al., 2011). Although information technology has grown rapidly so as to enable a learner to learn independently, character building requires exemplary and habituation methods, that in-class learning cannot be abandoned. Prawiradilaga [2007, as cited in Rusman et al. (2011)] suggests that the figure of teachers (lecturers), though not as dominant as in the teaching paradigm, is still required for the development of behaviors or attitudes oriented to the norms of society. As described earlier, not all character values can be built in the learning of a subject. Character values targeted by embryology learning with blended learning methods comprise discipline, learning independence, curiosity or enthusiasm in learning, and communicative competence in the liveliness of discussion.

Based on the background that has been stated earlier, the problem formulation in this study is 'how is the effectiveness of embryology course learning with blended learning method in building the characters of prospective biology teachers?'. In order to answer the problem, this

study is conducted to achieve the goal to know the level of effectiveness of embryology learning with blended learning method in building the character of discipline, learning independence, curiosity or enthusiasm in learning, and the liveliness of discussion.

## **II. METHOD**

The subjects of the study were 48 students of biology education study program involved in embryology lectures that took place with blended learning method. Embryology materials covering 6 main subjects (History and Development of Embryology, Reproductive System, Fertilization, Cleavage and Blastulation, Gastrulation, Organogenesis) were translated into an interactive multimedia form that combined text, images, animated movies, video, and sound. This interactive multimedia was then uploaded into the Learning Management System (LMS) Moodle, which students could access through the internet with each password for each student who had access rights. In this LMS there was a menu tool that allows educators (lecturers/researchers) to monitor accessing activities, including time, frequency and duration of access. Thus, the character of discipline could be monitored directly through the LMS. The subjects of the study were given independent learning tasks by accessing teaching materials within a week for each main subject. The learning outcomes were expressed in the form of summaries, which were then discussed in a in-class learning.



The discussions were conducted in groups of 5. The results of the group discussions were then presented to get the response of the whole class. Characteristics of learning independence, enthusiasm in learning, and liveliness in discussions were assessed during in-class learning. The assessment was done by scoring using the rating scale method from 1 to 4. Score 4 means 'very good', 3 is 'good', 2 is 'enough', and 1 is 'deficient'. Each category for each valued variable was translated into definitions as outlined in the rubric.

The obtained data, either through LMS monitoring or observations during in-class learning, were collected during the embryology learning program took place. The ownership of character values of the students were determined in the end of the semester by summing the scores and determining the average value, then the categories were defined for each character value. The level of effectiveness of Embryology course learning on character building was determined based on the average score of character values: 3.10-4.00 = high effectiveness; 2.10-3.00 = moderate effectiveness; 0-2.00 = low effectiveness.

### **III. RESULT**

The data collected in this study indicate that the embryology course learning with blended learning method, which combines e-learning with in-class learning, has high level of effectiveness in building some character values of students of biology prospective teachers, with the average score of learning

independence of 3.40; enthuse-asm in learning of 3.36; communicative in discussions of 3.25. In contrast, the discipline character only scores 2.87 which belongs to moderate effectiveness category. The score data of the character ownership during this embryology learning is presented in detail in Table 1, while the picture of character development built during Embryology learning is presented in Figure 1

### **IV. DISCUSSION**

The result shows that embryology course learning with blended learning method, combining e-learning with in-class learning, has high effectiveness in building character values of learning independence, enthusiasm in learning, and communicative competence in discussions. Learning independence can be built through this learning method as e-learning provide convenience and freedom for the student to manage their own time, places, and ways to learn (Rusman et al., 2011). However, assignments given by lecturers related to teaching materials that they need to learn give a sense of attachment and responsibility of students to the material being learnt.

The students' enthusiasm in learning that appears high in this study is apparently driven by this learning method through the clarity and beauty of the display of teaching materials in the form of interactive multi-media. This is supported by the opinion of Darmawan (2012) which states that MMI presenting harmony



display text, images, video, sound, to learn with high motivation. This is supported by the opinion of Darmawan (2012) which states that MMI presenting a harmony display of texts , images, video, sounds, and animations is able to empower students to learn with high motivation. As for the character of communicative compe-tence in discussions which may be highly motivated by students' desires in putting their interpretations of MMI they have learnt in their real learning community. Rusman et al. (2011) suggest that though e-learning provide convenience for students to independently acquire learning anytime and anywhere, students as human beings still have desires to be in a real learning community, and this is considered impor-tant in learning. Thus, when they are in the

and animation, able to enable students community, students feel free to express their opinions directly. Unlike the characters of learning inde-pendence, enthusiasm in learning, and com-municative competence in discussions, the effectiveness level of blended learning me-thod in this study is not really high in build-ing the character of discipline. This is pro-bably related to the freedom that stu-dents gain in determining their time, places, and ways to learn. In the beginning of the learn-ing program, the data shows high discipline level of students in initiating access to MMI teaching materials, but tends to de-cline in subsequent periods. However, this does not really matter, as long as the stu-dents still have senses of attachment and respon-sibility toward the material they learn.

Table 1. Average Scores of the Assessment of Character Values Developed during Embryology Course Learning with Blended Learning Method.

Character Values	Main Subjects of Embryology Courses					
	1	2	3	4	5	6
Discipline	3.00	2.98	2.92	2.81	2.73	2.77
Learning independence	3.00	4.00	4.00	2.56	3.23	3.58
Enthusiasm in learning	3.00	2.77	3.33	3.73	3.33	4.00
Communicative competence in discussions	3.27	3.38	3.35	3.38	3.35	3.35
Total	12.27	13.13	13.60	12.48	12.79	13.70
Average	3.07	3.28	3.40	3.2	3.20	3.43



Note : 1 = main subject of History and Development of Embryology  
 2 = main subject of Reproductive System  
 3 = main subject of Fertilization  
 4 = main subject of Cleavage and Blastulation  
 5 = main subject of Gastrulation  
 6 = main subject of Organogenesis

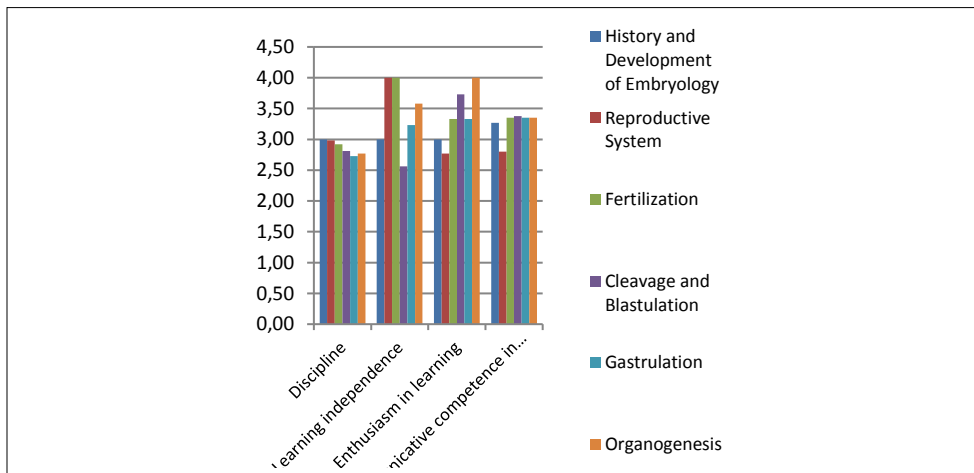


Figure 1. The chart of character development built during Embryology learning

## V. CONCLUSION

Based on the present study, it can be concluded that embryology course learning with blended learning method, combining e-learning with in-class learning, has high effectiveness in building character values of students of prospective biology teachers on learning independence, enthusiasm in learning, communicative competence in discussions, and moderate effectiveness level in building discipline character.

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## GENERATION Z AND DIGITAL LITERACY

Nurul Fazriyah<sup>1)</sup>

<sup>1)</sup> PGSD FKIP Unpas, Bandung, Indonesia  
[nurulfazriyah@unpas.ac.id](mailto:nurulfazriyah@unpas.ac.id)

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**Abstract.** Every generation of its time has different characters and habits. According to the words of Umar bi Khattab that “educate our children according to his time”. Then it is imperative that practitioners and educational institutions adapt the way learning to their generation. Generation born after 2001 called the generation Z or a lot of so-called “net generation”. This is because they grow as the internet progresses rapidly. Understanding of this generation brings a concept that generation Z should be equipped with good digital literacies. Because generation Z should be able to avoid the negative influence of the virtual world and its negative effects. The conclusion that can be obtained about the generation Z is they are the generation that still needs to upbringing and good direction, full of potential but can also be dangerous if not equipped with good ability in mastering technology. then the participation of teachers, lecturers and institutions needs to provide education in a manner appropriate to their characteristics..

**Keywords:** Generation Z, Digital literacy

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### I. INTRODUCTION

In the last 10 years, the development of technology and information flow is very rapid. This rapid rate of technological development has an impact on lifestyle changes, mindset, way of learning, and other aspects of life. The greatest impact is felt by generations born and / or growing during this technological explosion, this generation known as "Z generation". Generation Z has a unique character and very different from the characters owned by previous generations. This powerful technological influence is reflected in, for example, Z-generation dependence with gadgets and short concentration duration (Ozkan & Solmaz, 2015: 92-98). At this time

we often hear the term millennial generation, which is a generation that lives and is growing learning today. Millennial generation is the term used in describing the Y generation.

Z-generation populations at the school's active ages at both primary and high levels of education (Central Bureau of Statistics, 2015). This group, which is currently about 11-20 years old, lives with ease of access and lots of data or information that spoils their imagination. Maybe they will never know the difficulty of finding a source of learning. They are adept at using technology and spending time playing games or just watching Youtube. But this generation also grew during the events of 11 September, the monetary crisis and various terror at home and



abroad. So based on BPS data, it is estimated that in 2019 this generation will fill more than 20 percent of the world of work.

The world of education and industry continues to work together to prepare young people of the Z generation who are ready to enter the workforce. The Z generation born in 1995-2010 has begun to enter their first world of work. Generation Z is the children we will "harvest" in the coming 2030s, which according to McKinsey (2017) prediction that in that year Indonesia will occupy the seventh position of world economy, beating Germany and England. They are currently in the school benches. The next question is, what kind of learning process is suitable for this Z generation? Then what efforts should parents and teachers make in order for Z-generation children to get the right learning in preparing their era of leadership in the next 18 years?

Based on previous thought then an essence if the education can understand and interpret the generation of Z and the impact of digital literacy. So an in-depth study needs to be done in order to understand about this Z-generation. The application of digital literacy is the impact of a generation that changes according to the times, generally aims to present a precise picture of the application of digital literacy in primary school learning. In particular the purpose of this writing is (1) explains the definition of generation Z; (2) describe the character of the Z generation; (3)

describes the application of digital literacy in learning.

## II. LITERATURE

Many generational theories are expressed by social and psychological experts. They argue that the first members were born in early 1991 and at the end of 2001 (Hawkins, Schmidt 2008), while others argued that anyone born after 1995 was part of Gen Z. What which is not in disagreement, however, is what distinguishes this generation from the previous one, and that's the unique era in which they grew up. Here is a generation classification according to experts

**Tabel 1**  
**Generasi Label**

Label :	Mature Generation	Boom Generation	Generation X	Millennial (Y) Generation	Generation Z
Date:	1925–1945	1946–1964	1965–1980	1981–2000	2001–present

Sumber: Reeves (2008:297)

Generation Z has characteristics of behavior and personality that are different from previous generations. Some common characteristics of the Z generation according to Andrea et al (2016: 90-95) are:

1. Fluent Technology. They are the "digital generation" who are proficient and passionate about information technology and various computer applications. They can access the various information they need easily and quickly, both for the



benefit of education and the interests of daily life.

2. Social. They are very intense communication and interact with all circles, especially with peers through various networking sites, such as: FaceBook, twitter, or via SMS. Through this medium, they can express what they perceive and think spontaneously. They also tend to be tolerant of cultural differences and are very concerned with the environment.

3. Multitasking. They are accustomed to various activities at one time at a time. They can read, talk, watch, or listen to music at the same time. They want things to be done and run fast. They do not want things that are rambling and tortuous.

These characteristics have two opposite sides, can be positive-provide benefits for themselves and / or the environment-or even negative that can harm themselves and the environment. They are sophisticated in using digital tools. But they will be difficult if asked to manage a plot of land, with irrigation facilities, and enough capital money. Because all they have in mind is computers, laptops and cell phones, not farms, fisheries and farms. According to Taufiq A. (2011: 45), that children tend to decrease in verbal communication, tend to be egocentric and individualistic, tend to want results that are fast-paced, instant-paced, and easy-going, impatient and disrespectful to the process. Their Intellectual Intelligence (IQ) may be

well developed, but their emotional intelligence is dulled.

Based on what is stated by Chou P. (2012: 34), it is not surprising if at a young age, people who in fact still status as students have been skilled in the mastery of technology. Generation Z has a distinctive characteristic in which the internet began to grow and grow in line with the development of digital media. The existence of Generation Z is born from the combination of two generations before the Generation X and Generation Y. People in this generation are those who were born and raised in the digital era, where various technologies have grown more and more sophisticated, such as the existence of the device hard electronics in the form: computer or laptop, mobile phone, iPad, MP3, MP4, and so forth.

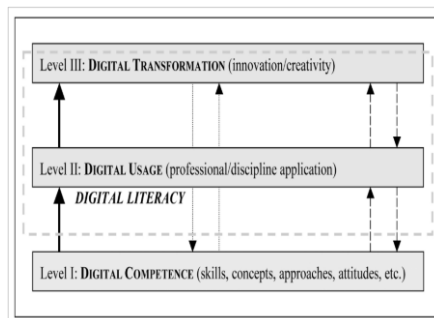
#### *A. Digital Literacy*

Gilster first proposed the term digital literacy (in Riel, et al., 2012: 3). He proposed digital literacy is the ability to use technology and information from digital devices effectively and efficiently in various contexts such as academic, career and everyday life. So it can be said that digital literacy is a basic ability in using digital technology.

Kemenkominfo (2014) mentions that from research conducted to children and adolescents aged 10-19 years, there are at least 30 million children and adolescents Indonesia who use the internet and make digital media as the main choice of their



communication channels. It also mentioned that children and teenagers have been using online media for more than a year, and nearly half of them claim to first learn about the internet from friends. The study revealed that 69 percent of respondents use computers in accessing the internet. About a third (34 percent) use laptops, and a fraction (only 2 percent) connect via video games. More than half of respondents (52 percent) use mobile phones to access the internet, but less than a quarter (21 percent) use smartphones and only 4 percent use tablets. This data proves that digital technology is widely used by teenagers to access information through the Internet network to meet daily needs



Picture 1. Digital Literacy Level

Sumber: Lankshear dan Knobel 2008, 167

From Figure 1 then obtained level of digital literacy level, that is competence, usage and transformation. Competency level (competence) regarding the mastery of the tool, while the usage (usage) is the use of digital to support the job / task, while the transformation is the ability to provide innovation through digital technology.

Tabel 2  
Classification Digital Literacy

Tool and System	Information and Data	Sharing and Creation	Contex History & Culture
Basic Computer	Representation	Creatif Thinking	Digital Civil
Computer Hardware	Searching	Teks	Differcity
Software and Application Computer	Buliding	Multimedia	Intellectual Privilage
Network	Analysis and Evaluation	Communication	Privacy and identity
Design	Decition Making	Character building	Program by agenda



Tool and System	Information and Data	Sharing and Creation	Contex History & Culture
Enrichment	Storage Navigacy	Producttifty Sharing and Colaboration	Technology

Sumber: Riel *et. al* (2012: 9)

Table 2 explains that the classification of various digital literations should be known. Lots of types and functions respectively. It can be learned and developed for students.

#### Generation Learning Z

Facing a Z generation that is very close to technology, hyperactive, confident, and bored, innovation and breakthrough in teaching methods are essential, where teachers play a facilitator role (Kelly, 2008). Teachers need a great strategy that provides the widest possible opportunity for students to experiment and explore on a topic.

The presence of Generation Z with all its very complex characteristics brings its own implications for education, including:

1. We do not want a technology-stammering generation and we do not expect technology to be held by "the wrong people". Therefore, parents, teachers, counselors and other educators should be able to guide and facilitate the child to grow and develop in accordance with his era and can utilize the presence of technology appropriately and

correctly. Not forbid them to be their generation, but the most important is the effort to teach them to live well adjusment.

2. In learning, children Generation Z tend to like things that are applicative and fun. The learning methods developed should be able to accommodate the tendencies of their learning methods, one of them through the Centered Learning Model approach (PBM), which uses the model, the constructed tools and the dynamics simulation of the system to produce diverse presentations to help students develop understanding of the phenomenon. complex and dynamic (Milrad, et al, in Hazrul Iswadi, 2012).

3. To accommodate the trend of Generation Z children in online social media, Bukik (2012) mentions that tweeting is not just memorizing lessons but it is a challenge to create lessons. The process of tweeting itself is an attempt to create a building of understanding. The brain is not passive, it is actively discovery and creation. This active brain is a sign of the real learning. Meanwhile, Akhmad Sudrajat (2009), initiated





the FaceBook Counseling in School, which is essentially about efforts to utilize FaceBook presence to support the effectiveness of Guidance and Counseling services in schools.

Of course there are many other things to consider in the process of Z-generation children education, which essentially boils down to appropriate educational services and appropriate to empower and civilize the children of Z generation, in which requires awareness and wisdom of educators in the face of children generation Z.

The presence of Generation Z with all its phenomenon and uniqueness becomes its own attraction especially for those who are not from previous generations like generation Y or better known as millennial and generation X. Many research, journals and articles are trying to explore the ins and outs of Z-generation life. As quoted from Entrepreneur (2015), Generation Z or Gen Z is a generation that includes children born between the mid-1990s to the present. The oldest member of Gen Z is still a teenager. They were born and grew big amid the increasingly established technological developments, where mobile phones more sophisticated, the internet has been everywhere until social media is not become something that is difficult to access. So, do not be surprised if Gen Z

became a topic that is often touted various circles in terms of education, economic, political, social, and cultural.

The existence of Gen Z and its advantages in following the latest technological developments turned out to create a new phenomenon. Starting from the phenomenon of their lifestyle that has been literate IT to the style of communication. Moreover, Gen Z is known to dominate more communications through social media. Uniquely, they tend to think social media is everything that the real world is about. If a peek at their timeline activity will be very visible that such social media becomes a necessity that is absolutely consumed daily. Unlike the generation before them the generation of Y and X who never felt not free to access the internet and if you want to enjoy a complete information generation X and Y never had to be patient to rely on mass media print, waiting for the publication of a book and so forth.

The online learning model will stimulate the Z generation to learn effectively. Lots of current learning technology developments that support that direction. Not a few in the education practitioners have started. Nothing is too late or limited because of the many media, tools, and learning resources that are



digitally based. This generation Z generation is a technologically advanced and pampered generation of ease of access. Unfortunately if the way of learning methods, approaches and models have not come into contact with digital. So as a plunger (practitioner), institutions are beginning to promote digital-based learning for this potent Z generation.

### **III. CONCLUSIONS AND SUGGESTIONS**

Generation Z is the next generation of millennial generation (Y) generation. They grew up in an age of highly developed information technology, easy and fast. Generation Z is the next generation of earth guards and the inhabitants of the planet. Then digital capabilities (digital literacy) should be owned by the Z generation. This means they can filter information well, effectively, and innovate for the people.

Generation Z has also a weakness because the role of parents replaced by their digital tools. In addition to the many parents who work, most of the day they spend outdoors. The role of teachers and parents becomes very important, to maintain the balance of knowledge, attitudes and feelings so that children of Z generation not only able to understand that life is not just in the virtual nature only. But there is

a real nature whose reality demands cooperation and mutual respect.

Social function will work if there is a balance between intellectual, emotional and spiritual. Familiarizing children to blend in togetherness with the family is an effort that can be done to stifle these Z-generation children in the direction of individualist thinking. Because they are often negligent and too engrossed using gadgets or other information technology equipment. Therefore the teacher must create a warm atmosphere when in the classroom so that the child becomes a caring person, and likes to socialize with others. Classroom teaching should be relevant to reality. This means that teachers should be able to become a bridge of accurate and useful knowledge for future students.

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# TRAINING OF INDONESIAN USE IN PACKAGING SMALL PRODUCTS IN VILLAGES OF LEMBANG DISTRICT DEVELOPMENT DISTRICT BANDUNG BARAT

Dindin M. Z. M.<sup>1</sup> Aries Setia Nugraha<sup>2</sup> & Eggie Nugraha<sup>3</sup>

<sup>1,2,3</sup>Program Studi Pendidikan Bahasa dan Sastra Indonesia– Universitas Pasundan Bandung

<sup>1</sup> dindinmzm@unpas.ac.id

<sup>2</sup> aries@unpas.ac.id

<sup>3</sup> eggienugraha@unpas.ac.id

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**Abstract.** The attractiveness of a product, in addition to the result of product recognition through advertising and promos also arises from the attractiveness of the product packaging itself. The ability to design packaging becomes a demand for the company. This is based on the notion that advertising and promos work only for publication, but when products are lined up on the ground or on an attractive packing market shelf is a smart solution to enhance consumer appeal. To create buyers' appeal, creative breakthroughs are needed for products other than product quality, one of them through packaging that attracts buying interest. Packaging on a product imitates itself in the marketplace and tries to offer itself in the middle of another product crush. So if we look at it we can say that the communication effort of the product required a characteristic of the product as an identitas, simply we need a design on the packaging of the product or need the packaging design on the product

**Keyword:** Attractiveness, Product, Packaging, Training

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## I. INTRODUCTION

Nowadays so many small businesses and home industries. All compete and strive to seize the market, so that consumers are faced with many options that exist. The condition has an impact on the company can no longer compete by simply relying on the quality of the resulting product. The company must think about the identity of the product homemade so that has a characteristic to then be widely known and in the end can attract consumers to buy the product.

The attractiveness of a product, in addition to the result of product recognition through advertising and promos, also arises from the attractiveness of the product packaging itself. The ability to design packaging becomes a demand for the company. It is based on the notion that advertising and promos work only for publication, but when the product is lined up on the ground or on an attractive packing market shelf is a smart solution to enhance the appeal of konaumen.

To create buyers' appeal, creative breakthroughs are needed for



products other than product quality, one of them through packaging that attracts buying interest. Packaging on a product imitates itself in the marketplace and tries to offer itself in the middle of another product crush. So if we look at it we can say that the communication effort of the product required a characteristic of the product as an identitas, simply we need a design on the packaging of the product or need the packaging design on the product.

Based on this, then through training activities in the use of language in the packaging is important to give, especially for the perpetrators of SMEs in the village of Lembang Bandung. Dengan, through this activity is expected the SMEs can increase the selling power of its products.

Based on the background of the problem that has been proposed, the author summarizes the problem as follows.

- a. How is the packaging of SME products in the Village Lembang Kec Lembang West Bandung regency?
- b. How is the use of Indonesian language and skills in determining words, composing sentences, and absorbing the persuasive elements of packaging of SME products in Lembang Kec Lembang village, West Bandung regency?

Purpose of Service

The purpose of community service is as follows:

- a. Knowing the packaging of SME products in the Village Lembang Kec Lembang West Bandung regency?
- b. Providing an understanding of the use of Indonesian language and skills in determining words, composing sentences, and absorbing the persuasive elements of packaging SME products in the Village Lembang Kec Lembang West Bandung regency?

## **II. METHOD**

The method used in carrying out this activity is through training that will be done periodically with the final result in the form of packaging products from business actors in the village of Lembang.

The method of implementation of activities in detail is as follows.

1. Stage of Preparation. Stages of preparation for community service are:

- a. Coordination with RT, RW and local village.
- b. Coordinate with SMEs.
- c. Conducting community service implementation plan.
- d. Prepare the tools and materials needed for implementation.
- e. Prepare the worksheet
- f. Questionnaire instrument / questionnaire

2. Implementation Phase

- a. Pretes  
Pretes done to determine the level of difficulty experienced by the community in making



packaging. This is very useful for the determination of the solution / next step.

b. Analysis of pretest results

Analysis of pretest results is done with the team. This analysis is done as a form of evaluation of the pretest that has been done.

c. Scheduling

Scheduling is done through the coordination of leisure time of business actors in the village of Lembang, so that the implementation of activities will not be clashed by marketing the product.

d. Implementation of activities (training)

Implementation of activities (training) will be done if the schedule has been fiks and the implementation of this activity carried out for three months on a regular basis. The training consists of the following series of activities.

- 1) Giving linguistic material
- 2) Preparation of persuasion sentences
- 3) How to make sentences in the packaging
- 4) How to design packaging
- 5) Creation of creative packaging

3. Evaluation Stage

This stage is the final stage of community service to see the response given by SME business actor in Lembang village, which has been given training of packaging manufacture. The result of the training can be seen from the product they have made from the training result.

### III. RESULTS

The results of the devotion carried out motivated the participants to make the packaging well so that the impact on the sale value of the product.

### IV. DISCUSSION

#### 1. Packaging and Product Presentations

Packaging is a coordinated system for preparing the goods to be ready for use. The presence of containers or wrappers can help prevent or reduce damage, protect the products contained therein, protect from the dangers of pollution as well as physical disorders. There are several opinions on the meaning of packaging, firstly; according to Kotler (1995: 200) packaging is the activity of designing and producing container or wrap as a product. Swatha interpret (1980: 139) packaging is the general activities and planning of goods involving the determination of the design of wrapping or packaging





of a good. Meanwhile, according to Saladin (1996: 28) the packaging is a container or bungkus. So some opinions of experts can be concluded packaging is an activity of designing and producing a package of suatu barang which includes the packaging design and manufacture of the product wrap.

The design process generally takes into account aspects of function, aesthetics and various other aspects. In designing or designing a product packaging we can pay attention to some basic aspects in determining the product packaging itself, including:

a. Packaging Attraction

The attractiveness of packaging is very important in order to capture stimulus by consumers who conveyed to producers so that consumers are expected to be interested in the product.

b. Important factors and packaging design requirements

1) Able to attract potential buyers

Packaging is expected to have an appealing appearance of all visual aspects, including form, special drawings, colors, illustrations, letters, trademarks, logos and other signs. The packaging features describes the behavior of the company in

directing its products. Lack of attention to product quality and unattractive packaging design will cause buyers to doubt the product. The appearance of a package may vary by color difference, shape, size, graphic illustrations, materials and prints.

2) Displays products that are ready to sell

When the consumer is interested in buying, the next consumer consideration to determine whether to buy or not is the contents of the packaging (the product in it). Therefore the packaging should be able to show to the buyer the contents or the product is packed. The advantages of the product should be highlighted on the packaging, as if the product is indeed presented to prospective buyers satisfactorily. The consumer targets of the products sold are shown through packaging designs, such as age groups (baby food, infant formula), sex and ethnic groups.

3) Informative and communicative

Failure of packaging function may cause the product to be sold will never



move from its place.

Packaging

## 2. Rules of Packaging and the Use of Language in Packaging

### a. Labeling Regulations

The regulation on labeling of food products though in Indonesia is regulated in the Minister of Health RI Regulation no. 79 / Menkes / PER / III / 1978. In the regulation of the label and advertising of this food is regulated on the procedures of labeling and the accompanying conditions. This regulation has been supplemented by the Decree of the Director General of Food and Drug Control (Dirjen POM) No.02240 / B / S / SK // VII / 1991 issued on July 2, 1996. In accordance with applicable regulations, the label must be able to provide information that is not misleading about the nature, substance, origin, duration, value or usefulness. Labels and advertising must be clear and complete and readable. Therefore, in the regulations, especially in the decree of the Director General of POM. There are detailed procedures to be followed by label makers. For food products for export purposes, labeling must also

take into account the applicable labeling regulations in export destination countries.

Labels can be simple hangers attached to a product, or drawings that are intricately designed and part of the packaging. Label can bring only brand, or a large amount of information. Even if the seller selects a simple label, the law may require more. More performing some functions:

- 1) The label identifies the product or brand, such as the sunburst name attached to the orange, etc.
- 2) Labels can promote products through attractive graphics. The new technology enables the 360 degrees-wrapped furniture to wrap the container with bright graphics and accommodate more product information to consumers, replace paper letters attached to cans and bottles.

### b. Language Packaging Design

Graphic design elements or language ie visual language or symbol language expressed through shapes, illustrations, colors and letters.

- 1) Form of Packaging



Different packaging forms of a product with a competitor's product can remind consumers of the product, even though they themselves may not be reminded again. Packaging of different sizes allows buyers from different income levels to purchase the same product. With different combinations of shapes, colors, and packaging sizes, the company can increase sales of its products. Form of packaging must be related to the product.

2) Illustration and decoration

Graphic and photographic illustrations allow manufacturers to solidify the image of a product. The main function of illustration is for visual information about a packaged product, text support, emphasis of a particular impression and an eye catcher to attract a potential buyer. The image can be a full or detailed product image, and can also be decoration (decoration). Should the picture not mess up the message to be delivered. Pictures and symbols can attract attention and direct buyers' attention

to remember them for as long as possible.

3) Color

Packaging colors are the first thing consumers see (eye catching) and may have the greatest impact on attracting consumers. The main effect of color is to create certain psychological and physiological reactions, which can be used as the appeal of the packaging design. Colors on the packaging can work for:

a) Shows the product features

The color of the packaging can show the characteristics of the packaged product. Pink or pink color is often used for cosmetic products, the green color that is integrated in the candy packaging shows the presence of mint flavor. The combination of blue and white in mineral water or toothpaste gives the impression of clean and hygienic.

b) Product differentiation



Color can be the most important factor in establishing a company's product identity.

c) Shows the quality of the product

Colors can be socialized with the quality of a product, such as gold, maroon and purple often associated with expensive products and status symbols, while cheap products or consumer products are often shown in yellow.

4) Packaging Molds

On the packaging is often written the contents of the packaging and how to use it. Prints are simple, clear, easy to read and arranged interesting on the packaging design can help market the product, Things to note in showing the mold on the packaging are:

a) Layout (lay out).

Writing on the packaging surface should be easy to read. The basic information displayed on the face includes company or

brand identity, product name and description, benefits to consumers, and legal requirements. The back or inside of the packaging can be used more freely.

b) Letter.

Capital letters make it easier to read than lowercase letters, and the letters that are written are easier to read than the letters written together. The use of letters to inform the packaging label should be clear enough. The words and sentences should be short to be easy to understand. Forms and typography not only serve as a medium of communication, but also a packaging decoration. Therefore the letters used must be harmonious. In some cases, the sale of goods is not self-service, the nature of readability is negligible.

c) Color composition

The standard compositions and proportions of each product component should be displayed in easy-to-read colors, such



as not using yellow or white on a bright base.

d) Surface shape.

Prints on flat surfaces are easier to read than prints on wavy surfaces.

c. Packaging Making Strategy

1) Do Survey

Conduct a survey to get to know the design concepts of competitors, how influence competitor design to product sales. Buat Panelists and polls to know sebarapa strong competition between your product design concepts with competitors. From the results of this survey designers will be able to create packaging design concepts that can compete.

2) Create packaging design concept in some alternatives.

Make at least 2 packaging design concepts as a comparison material between two design concepts that have been made. The most choice of one of the concepts becomes an indication of the character of the consumer to the product to be packed later.

3) Create unique and interesting and characteristic packaging designs

Try to create product packaging design that has not been used by other products. So the products offered give the impression of more interesting and more unique than other products with the same type of business.

4) Customize the packaging design with product contents

Design packaging that should be designed should refer to the type and character of the product to be packaged. So do not happen that the packaging design does not give the product pattern. For example, the design of bath soap is certainly different from the concept of motor engine lubricant design, so the designer's obligations strengthen this perception

5) Customize packaging design with consumer character

A packing designer must be good at analyzing the product segment groups that will be packaged so that the great reference to a packaging design is not only good or bad in terms of graphics, but how the design is created in harmony with targeted target market, so that potential customers do not feel foreign to the



packaging design which are made. Creating product packaging design according to its target market, can be distinguished by consumer age, consumer gender, sales price class, and regional culture.

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# IMPLEMENTATION OF CHARACTER EDUCATION THROUGH SCHOOL CULTURE VALUES

Uum Murfiah

PGSD FKIP Universitas Pasundan University, Bandung, Indonesia  
uummurfiah@unpas.ac.id

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**Abstract.** This research is motivated that character education of elementary school children have strong influence on children behaviour in their life in the future. However, the problem that occur in primary schools are more dominant in the knowledge aspect. The purpose of this study is to describe the character development of elementary school children through the habituation of school culture values. This research uses qualitative method with case study at public elementary school of Soka Kota Bandung. Data were collected through indepth interviews with principals and teacher. Triangulation of data and member checks is used as an analytical tools. The results show that character education of elementary school children can effectively be build through the habit of doing school culture values.

**Keyword:** Character education, school culture, values

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## I. INTRODUCTION

The results showed that among the younger generation many violations of social values, brawls, drug abuse, promiscuity, undisciplined, lack of empathy, lack of language, and other deviant behavior. (Madjid, 2000: 95, Mulyana, 2004: 77, Djahiri, 2007: 4, and Sauri, 2003: 35). The phenomenon of life like this, confronts parents, teachers and society on a very complex challenge in instilling manners, religious values, educational values, cultural values of the nation and other positive values to the younger generation of the nation's expectations.

Character education for elementary school children should be instilled by parents and teachers from the beginning to be the foundation for children so avoid the negative deeds. Where the negative potentials that

exist in the child, such as lack of empathy, harsh words, selfish, undisciplined, and others can be guided and directed to be good by parents and teachers from an early age.

Children's lives in school, family and society that take place every day can not avoid the condition of the shifts and upheavals that occur and the current happening. In the face of the many shifts and distortions of values, the three educational environments are an effective environment in the process of fostering a positive character for the child. School environment is a dynamic medium in instilling manners through exemplary teachers in schools. The family is the spearhead of education as a cultural agent in which children receive cultural values that nurture their personality (Sumaatmadja, 2005: 51).



Character education since primary education is interesting to be studied because at this time education that occurs in school pay more attention to cognitive aspect (knowledge, intellectual), and skill aspect (psychomotor), less attention to affective aspect (attitude) or character of child. Though the three aspects are ideally (balanced) can be developed in the process of children's education so that children have intellectual, emotional and spiritual intelligence in a well integrated (Retno, 2005: 38).

Implementation of character education in elementary school children is not easy because it is faced with challenges and obstacles that can arise from teachers and students even communities where the environment affects children's behavior. In character education is often addressed as performance content. So there is a "gap" between the competencies of the teacher and the competence that must be owned by the teacher in the implementation of character education. The teacher still understands the concept of character education only from the "mastery" aspect. Character education is more directed to education that is "moral excellence" (Wahyuni, 2012). The difficulties encountered in the implementation of character education because students are influenced by environmental factors that are less supportive of the character formation of children. The environment can shape the character of a good child or otherwise can form a bad character in the child. Albertus (2007) asserted that the character is

considered the same as the personality that is the characteristic of a person who is the formation of the environment.

There are a number of inhibiting factors in implementing character education. The inhibiting factors may arise from within the school environment as well as outside the school environment. In the school environment the implementation of character education is due to the low commitment of school leaders and teachers in the implementation of character education. On the other hand, students experience obstacles in implementing character education because students are apathetic because the values implanted in schools are often different from the values that arise at home and in society. In school students are accustomed to be honest, disciplined, respectful of others, but in students witnessing dishonesty within the community. Students obtain information and witness corruption by officials, low discipline in traffic and student brawl.

Efforts that can be done in the implementation of character education in elementary school children that is by involving various elements. Commitment from school leaders, teachers, parents and community leaders in the implementation of character education. Given the character education is so important in the process of development of this nation. If the character building is not done, then the nation of Indonesia will become a nation of coolies (Samani and Hariyanto, 2011). Consistency of



all parties in implementing value education affects the development of the character of the young generation. In terms of methods, a comprehensive approach includes: Modeling, Facilitation, and Skill Building. (Kirschenbaum, 1995)

The role of educators in character education is very important because children know and know the norms, values, beliefs, religion, good and bad of parents and teachers. The early child knows and does good deeds and good habits is from what he knows, what he feels, and from what he sees and hears around him. Teachers who deliberately instill values, morals, norms, and religions through the process of learning within the school culture environment with appropriate methods will have a strong impact on the development of the child's character.

With the uniqueness of SDN Soka that attracted the author's attention, that the learning orientation of children here is not only to pursue achievement, such as reading ability, writing, numeracy and other academic knowledge mastery, but more oriented to the process of developing the character of children through school culture with instilling noble values of Sundanese culture. The traditional game that is familiarized with children gives its own color in the character building of students here.

## **II. RESEARCH METHODS**

This study uses a qualitative approach, in which the researcher is an instrument that naturally observes and analyzes situations that take place

in interaction with teachers and the elementary school environment. The objective of the study was to describe the natural social situation in exposing natural phenomena to build character education of primary school children through school cultural values. Researchers as a human instrument as well as collector and data analyzer for the data has meaning. Data collection techniques through observation and in-depth interviews. Respondents were principals and teachers were selected purposively. Data checking is done with credibility, dependability and confirmability. Data analysis was done through individual case analysis and cross-case data analysis (Sugiyono, 2017).

## **III. RESULTS**

Based on the data obtained through participant observation, documentation and in-depth interviews with principals and teachers at SDN Soka Kota Bandung which became a case study in this study, with analysis in accordance with research objectives, it can be stated the following research results:

*First*, the characteristics of school culture values at SDN Soka Bandung give color in the development of character education of students. The characteristics of this school culture reflect a value system based on Sundanese cultural values. Sundanese cultural values embodied in the form of habits as well as in the form of traditional games and sports characterized Sundanese culture gave birth to strengthening the character education of children. Cultural



characteristics of SDN Soka Kota Bandung can be found such as (a) the history of school establishment, (2) school vision and mission, (3) input of selected students and teachers, and (4) the amount of support from the education office and parents.

*Second*, the values of school culture that can build character education students in SDN Soka Bandung, namely (1) the value of discipline, (2) the value of independence, and (3) the value of cleanliness and beauty.

*Third*, the basic values that affect the character education of students at SDN Soka Bandung are the values extracted from the values of Sundanese culture that became the value of excellence this school is realized through various traditional games. The basic values of Sundanese culture through traditional games, such as pencak silat, angklung and other games are applied so that students have good character.

#### **IV. DISCUSSION**

The discussion presented refers to the results of research and analysis based on case study analysis. First, the characteristics of this school culture reflect the values of Sundanese culture that are implemented through various activities, such as silat activities, angklung arts, scouts, traditional games and habits instilled by teachers in building character education of students. On the other hand the history of school establishment, vision and mission of the school are realized, good student input, experienced teachers, and also

support from the government and parents gave birth to a good character education. In theory the growth of school organization can be said that the organization of this school including mature organization. In the view of Clark (Peterson, ED, 1987), a long-standing organization, has what is called organizational Saga, a collective understanding based on history of organizational success, which provides a normative basis for organizational members both inside and outside. Organizational Saga is one of the most valuable resources for the organization because it was built for many years. Vision and mission SDN Soka provide clear direction for principals and teachers in instilling character education to students. Vision as A view of our environment will enable our tremendous future success (Cortada, 1993). Vision consists of elements, namely values, mission and goals (Quigley, 1993).

Selected student inputs to enter SDN Soka. Selected input will give a good influence in the learning process of character education students. Selected students are the embryo who can understand teacher character education. The other side that embodies character education in this school is the support of the government and parents in the form of assistance that is material or non-material. Their involvement in the inculcation of character education in the students gives the teacher motivation in doing the coaching and habituation of the students.

*Second*, the character education that is instilled in the students of SDN Soka Kota Bandung



through the values of discipline, the value of independence, the value of decency and the value of cleanliness and beauty. Discipline is implanted to students starting from the time they start coming to school, before entering the class, while taking extracurricular activities, and getting home from school. Discipline provides an understanding that compliance or obedience to the norms or rules that apply in a group. Self discipline (self-discipline) characterized inernalisasi norms that apply, meaning that the norms merge with people (Tilaar, 2001). The value of self-reliance developed by students through various activities held in schools through various traditional games. Independence relates to freedom, self-confidence, empowerment and maturity. In the life of an individual or a group, independence does not mean isolation, exclusiveness, nor chauvinism. On the contrary it is characterized by openness, interpedensi, caring, cooperation and self-esteem. Independence primarily appears in the ability and courage to make their own decisions and assume the risks associated with it (accountability) (Tilaar, 2001). Character education in students through the values of cleanliness and beauty that is based on the tradition of delay. Sundanese tradition that colored the students' education in this school. Tradition is a manifestation of organizational culture. Hodge and Anthony (1988) describe the forms of tradition that are manifestations of organizational culture, among others: (a) ritual, which is a series of

activities that plan, relatively complex and dramatic and involves various forms of expression in an event, carried out through social interaction, to bring to the present; (b) ceremony, which is a system of several rites that are assembled in an event; and (c) the ritual is a set of detailed and standardized engineering and behavior that manages desires / anxieties, but occasionally produces profound feelings as a result of technical matters of implementation.

*Third*, the basic values of Sundanese culture become the basic value of this school's excellence. The basic value of Sundanese culture becomes the value of excellence that color the interaction of teachers with students. The value of excellence (excellence) is included in two forms, namely behavior and body (physical). Behavior that contains the value of excellence is a behavior that is comparatively better (ethical) and more successful (utility) than other behaviors. Behavior in this case can be shown in the mastery of various things (knowledge and skills). In physical form, the value of excellence is contained in more beautiful (aesthetic) objects or more useful than other objects. (Ekosusilo, 2003). The study of corporate culture, many find that fast-growing companies place the value of excellence as the commitment of all employees (Quigley, 1993).

## **V. CONCLUSION**

Implementation of character education in students at SDN Soka Bandung City grown through the





values of school culture. The school's cultural values imparted to the students are the values of delay through various games, arts and traditions that can shape students to have more independent, disciplined, clean and loving beauty attitudes.

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# INNOVATIVE TEACHING MATHEMATICS THROUGH LESSON STUDY

(Workshop of PGSD students and teachers of SD campus UPI Purwakarta region)

Sunata

PGSD FKIP Unpas, Bandung, Indonesia  
sunata@unpas.ac.id

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**Abstract.** This study aimed to provide a real experience of learning mathematics for primary school lesson study - based in improving the ability of mathematical understanding with Lesson Study design. The main participants are PGSD UPI students and elementary school teachers in Purwakarta. To analyze data, the study followed several steps, including: (1) identify the learning problem of teachers` model (2) plan the learning steps (a way to solve the identified problem); (3) implement the learning done by the model teacher while the other teacher observing the learning process, (4) evaluate the learning process that has been done (5) improve the learning planning based on the results of the evaluation (6) re-implement the learning, (7) go after the implemented learning, and (8) share the experience and findings of the evaluation to other teachers. Activity sheets were used to gather the data. They are linked to mathematical understanding ability, attitude scale, and student journal. Referring to the results, they showed the the teachers learned triangle and pyramid triangle prism through the Lesson Study design got slightly improvement and a positive attitude.

**Keywords :** *Lesson Study design*, Prisma tegak segitiga dan limas, understanding, mathematics.

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## I. INTRODUCTION

One way to improve the quality of Indonesian human resources is to develop educational programs, in this case the improvement of communication as an educator in the field of mathematics.

Education is a human effort to make life better. Mathematics education substantially contains the development of thinking ability based on logical, critical, systematic, and accurate reasoning principles. With mathematics, we can practice

logically, and with mathematics, other science can develop rapidly.

Teaching process in the classroom conducted by teachers whose basic ability is weak can be the cause of the low ability of students' mathematical thinking. If the teacher only acts as a transmitter of information, while the passive student listens and copies, once the teacher asks and the student answers, the teacher gives an example. So that happens mechanistic learning, meaningful learning is not expected to



happen (Usuyana et al, 2009). During this math learning is more exercise doing a lot of questions almost the same as the example, consequently the ability to think mathematically less developed students. This problem is a challenge that must be addressed and sought the solution how to make math learning more interesting and simple so as to attract student interest and provide opportunities for students to develop their abilities. Students tend to memorize mathematical concepts and often by repeating the definition given by the teacher or written in the book, without understanding the meaning and content. As faced by mostly teachers, the majority still have base capability with low concept. It is due to their less creativity to innovate for better learning.

The previous explanation indicates that mathematics learning which can improve the ability of mathematical communication. Associated with the improvement of these capabilities, Sumarmo (2006) suggested that basic mathematical skills are expected to be possessed in five standards:

- (1) recognize, understand, and apply mathematical concepts, procedures, principles and ideas;
- (2) solve mathematical problem solving (mathematical problem solving);
- (3) mathematical reasoning;
- (4) make a mathematical connection (mathematical connection); and
- (5) mathematical communication.

Therefore, in learning mathematics students are expected to

have good mathematical understanding skills. in order to get well-development for mathematical understanding ability, teachers need to improve their ability to understand the mathematical concept. Responding to that emerged problems, the authors are interested in conducting research related to the ability of mathematical understanding through Innovative Teaching Mathematics Lesson Study-based ".

## **II. LITERARY REVIEW**

Lesson Study is a model of professional coaching through collaborative and sustainable learning learning based on the principles of collectivity and mutual learning to build a learning community.

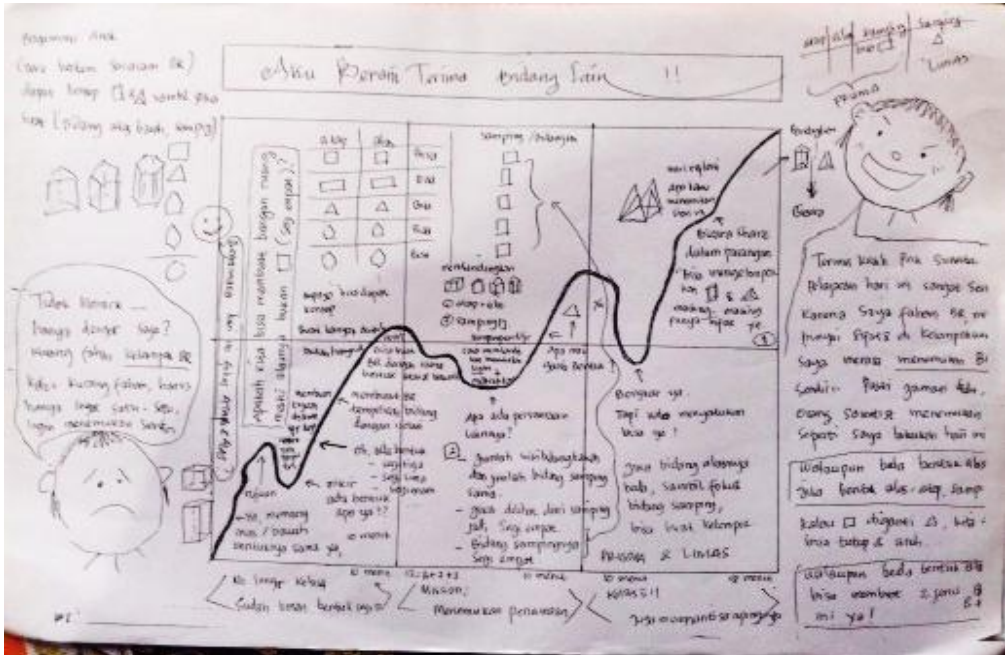
Lesson Study covers 3 (three) activity steps, namely: planning stage, implementation of learning and observation (do) and reflection (see).

Stage 1: Planning

Problem identification (subject matter relevant to class and lesson schedule, student characteristics and classroom atmosphere, learning approaches / methods, media, props, and assessment) and alternative solutions.

1. Preparation of Research Theme
2. Preparation of learning tools consisting of:
3. Lesson Plans (RPP)
4. Student Activity Sheet (LKS)
5. Media and Display Tools
6. Instrument assessment process and learning outcomes
7. Learning Observation SheetSheet





Stage 2: Implementation and observation stage

In observing students, observers are advised:

1. Record students' comments or discussions and write down the student's name or position.
2. Make notes about situations when students cooperate or choose not to cooperate.
3. Looking for examples of the construction process of understanding through discussion and learning activities undertaken by students.
4. Record variations of individual problem solving methods by individual students or groups including incorrect resolution strategies.
5. Do students use their original knowledge or prior knowledge to understand new concepts learned?
6. Is the student's way of thinking facilitated and motivated by the questions asked by the teacher?
7. Are student ideas rewarded and associated with the material being studied?
8. Is the final conclusion based on student opinion?
9. Is the conclusion put forward according to the learning objectives?
10. Is there a strengthening of the students' competencies?

Stage 3 : Reflection

1. Teachers who carry out the



learning activities express his impressions during the activities took place about himself and students.

2. Observers (other teachers and experts) presented the results of their observational data analysis, particularly those involving student activities during the learning activities that were accompanied by video playback of the recording of learning activities.
3. The teacher who performed the implementation provided feedback on the comments of the observers.
4. Revision of learning tools.
5. Understanding according to English-Indonesian Dictionary is a translation of comprehension. In the big Indonesian dictionary, understand has the meaning to understand right, know right. Sudjana (1996) suggests understanding of an operational nature of understanding is defined as seeing a relationship, understanding is defined as a tool using facts, and understanding is interpreted as seeing the use of something productively

according to Sumarno (1987), understanding is defined as the absorption of the meaning of material that is learned. Furthermore, Michener (Sumarno, 1987) stated that understanding is one aspect in Bloom's taxonomy. To understand an object in depth, there are some terms needed to learn, likely : 1) the object; 2) its relation to other similar objects; 3) its relation to other unlike objects; 4) dual-relation with other similar objects; 5) relation with objects in

other theories.

From the previous explanation, that is more specific cognitive process of understanding involves several processes, so the researchers took a few points of specific process to be used as indicators of understanding in this study.

### **III. RESEARCH METHOD**

Data for this study were gathered through three instruments, including : communication ability test, rubrics, and attitude. The test utilized is in form of essays as it is more accurate in testing the highest level of students ability.

Capability test is beneficially for elaboration about the aspects of learning mathematics of students understanding. Mathematics understanding is more concerned on relational understanding, linking one concept to another ones.

### **IV. FINDINGS AND DISCUSSION**

In the process of learning to construct basic shapes to the prism and observe the characteristics of that shape, so that each group is able to define its sense of the vertical prism. At the end section, students and teachers were tested communication skills to measure their improvement. The test were analyzed by calculating the mean value and the result is 88.5.

The attitude scale used is : strongly agree (SS), agree (S), disagree (TS), and strongly disagree (STS). Statement posed on attitude scale includes : positive sentences (85 %), and negative sentences (15%). It is



seen that most students (81.51%) agree with positive statements in questionnaire and 18.69% students disagree with negative statements.

The students motivation is not used to improve before the lesson study-based mathematic learning has been implemented.

## **V. CONCLUSION**

The following is summary of study result in implementing lesson study-based mathematical learning in prism shape :

1. There is an improvement towards the mathematical understanding ability through lesson study-based mathematic learning
2. There is a possitive attitude from students and teachers in implementation of lesson study-based mathematic learning  
From students daily journal, it is revealed that students is more attractive in following the mathematic learning. Therefore, the concepts is easy delivered.

Turning to suggestions and recommendation for further researchers, it is as following :

1. To attract students attention in following the activity, it is better to have attractive, interactive and relevant additional media.
2. To get students active in class and to foster the students mathemactical concept, lesson study-based mathematic learning tend to be one of alternative ways.
3. For further researcher, the study towards lesson study-based mathematic learning is

recommended to conduct in another context.

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# LEARNING WRITING POERTY OF CHARACTER WITH USING PROJECT BASED LEARNING MODEL

Adi Rustandi<sup>1</sup> & Setiawan<sup>2</sup>

<sup>1,2</sup>Program Studi Pendidikan Bahasa Sastra Indonesia dan Daerah – Universitas Pasundan  
Bandung

<sup>1</sup>adirustandi@unpas.ac.id

<sup>2</sup>setiawan@unpas.ac.id

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**Abstract .** Writing is one of the language skills that are considered difficult and should be dicuas by the students. Among them is writing a poetry contained in the Curriculum 2013 at the level of SMA class X second semester. Writing a poem to be applied is to write a character-filled poetry by using a project based learning model. The purpose of this study, students are expected to be able to write poetry containing characters in which keep a moral message for readers. The research model that will be used is the quasi experimental model of matching-only pretest-posttest control group design on the second semester of the second semester. The sample of research will be used as much as two classes with each class as many as 32 students (64 people). Data were collected through poetry writing tests, learning implementation observation sheets, interviews, and student response questionnaires. The process of obtaining data is done by learning to write poetry. The results of this study will be processed using data analysis, tested with statistics, and the end result of this learning will be recorded into a collection (anthology) character-themed poetry.

**Keyword:** writing poetry, character education, and project based learning

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## I. INTRODUCTION

Writing is one of the language skills. Suhendar and Supinah (1992, p1.1) say that language skills include four aspects: listening skills, speaking skills, reading skills, and writing skills. Iskandarwassid (2011, pp. 291) says that writing skills are at the highest level of difficulty for learners compared to the other three skills. The same thing is expressed by Isaac (2014, pp. Viii) who says that writing skills is difficult. In fact, Abidin (2013, pp. 190) says that writing learning still leaves a serious problem. One of the serious problems is the low ability of students in writing.

Based on the problems above, the researchers are interested in doing a research through writing skill which focuses on the skill of writing characterized poetry by using project based learning model. The purpose of this study is to stimulate the creative power of students in writing poetry in which keeping the moral message for the reader and by producing literary works in the form of a collection (anthology) character-themed poetry.

Kurniawan (2014, p.66) says that the intertextual learning of poetry is a learning oriented to comprehensively comprehending poetry knowledge, so that students have knowledge about poetry. From that knowledge, students can finally write poetry well.





He also added that the knowledge obtained by students with intertextual learning of poetry, among others (1) students understand about good poetry, so that will be a reference for students in writing a good poem, that is poetry as an example in learning; (2) the students become aware of the patterns that must be met to write good poems, namely diction, rhyme, good, and message; and (3) the students become more knowledgeable about the diction and the phrase of good poetry, so that knowledge will be imitated and creativity based on the exemplified poetry.

The study of writing poem will be directed to the writing of characters-loaded poetry. That is, the learning process will always be associated with character education. Kurniawan (2013, p. 39), character education is basically the development of values derived from the viewpoint of life, the ideology of the Indonesian nation, religion, culture, and values formulated in national education objectives. The same thing expressed by the Ministry of National Education and Curriculum Development Center mentions that there are 18 values of character, including religious, honest, tolerance, discipline, hard work, creative, independent, democratic, curiosity, spirit of nationality, love the homeland, appreciate achievement, / communicative, peace-loving, avid reader, caring about the environment, social care, and responsibility. Thus, the process of learning to write this poem will always be in contact with the value of the character, both the

learning process and the poem created by the students.

The process of writing character-based poetry will be packed using project based learning model. The Ministry of Education and Culture (2014, p. 39) states that Project Based Learning (PjBL) is a learning model that uses projects / activities as media. This is similar to that delivered by Hosnan (2014, pp. 319) that project based learning or project-based learning model is a learning model that uses the project / activity as the media. Thus, the ultimate goal of learning to write this poem is to produce a work such as book collection (anthology) poetry. Hopefully that students are increasingly motivated to continue writing and do much better.

## **II. METHOD**

The research model that will be used is the quasi experimental model of matching-only pretest-posttest control group design on Grade X students of the second semester. The sample of research will be used as much as two classes with each class as many as 32 students (64 people). Data were collected through poetry writing tests, learning implementation observation sheets, interviews, and student response questionnaires. The process of obtaining data is done by learning to write poetry. The results of this study will be processed using data analysis, tested by statistics, and the end result of this learning will be recorded into a collection (anthology) poetry.



### III. RESULTS

The result of learning to write a character-based poetry using project-based learning model is in the form of student value that refers to the assessment parameters that have been prepared by researchers, such as harmony or harmony of elements of poetry (images, diction, prince, rhyme, rhythm, and typography), parameters character values, and learning outcomes by posting student work into a collection of poetry (anthology) books. The result of learning to write character-based poetry using project based learning model is processed using data analysis, tested by statistics, and the end result of this learning will be recorded into a collection (anthology) poem with character theme.

### IV. DISCUSSION

Kurniawan and Sutardi (2012, p25) say that poetry is an expression of feeling or expression of feeling written in beautiful language. This is in line with Sumarjo and Suratmi (2009, p3) that poetry is a form of essay bound by rhythms, rhymes or verses. The choice of words (diction) used in poetry is very dense content and full of interpretation.

Based on the understanding above, it can be concluded that the poetry is an essay that comes from the expression of feeling written in beautiful language and in it there is the rhythm, rhyme, and the right diction.

Kurniawan and Sutardi (2012, pp. 26-36) mentioned the characteristics of poetry, as follows.

- 1) Diction, that is word choice. Creativity writing poetry is the creativity of choosing diction because the power of poetry lies in its words (diction), how the words are short, short, and simple, but can describe the experience, feelings, imagination, and beauty that much.
- 2) Sentence. Characteristic of the aspect of the sentence of poetry is rhythm-semantics, ie the sentence in poetry always emphasizes the rhythmic (sound) and semantic (meaning) aspects.
- 3) Typography, which is related to the form of poetry writing that involves the verse, the use of letters and punctuation, and the form of poetry.

Sumarjo and Suratmi (2009, p.3) say poets often produce meaningful and rhythmic poems. Each line of poetry has beautiful meanings and sounds. Thus, the characteristics of poetry constructed by diction, sentence, typography, will produce poems full of meaning.

The process of writing characters-based poetry lesson using the project based learning model will be associated with character or character education. The Master Character Education Design published by the Naisonal Ministry of Education (2010, p.14) says character education is defined as value education, character education, moral education, character education, which aims at developing the ability of learners to make good decisions, , and manifest the good in everyday life with full of heart. Hill (in Budimansyah, 2012, p.14) says that the character determines one's personal thoughts and actions it does.



A good character is the inner motivation to do what is right, according to the highest standards of behavior, in every situation. Thus, character education teaches habitual ways of thinking and behaving that help individuals to live and work together as families, communities, and citizens, and help them to make responsible decisions. Thus, it can be concluded that character education is good character education, creating good attitudes and thoughts.

Kurniawan (2013, p. 39), mentions character education in line with those proposed by the Ministry of National Education and the Development of the Curriculum Center (1) religious; (2) honest; (3) tolerance; (4) discipline; (5) hard work; (6) creative; (7) independent; (8) democratic; (9) curiosity; (10) the spirit of nationality; (11) love the homeland; (12) appreciate achievement; (13) friendly / communicative; (14) love of peace; (15) likes to read; (16) care about the environment; (17) social concerns; and (18) responsibility.

Learning and teaching activities to write poems containing characters that will be applied that is using project based learning model. That is,

the ultimate goal of learning to write this poem will produce a work in the form of books collection (anthology) poetry. This learning model is suitable as a form of motivation for students to work through writing. Project based learning (PBL) is a constructive way approach to learning in-depth with a research-based approach to issues and statements that are weighty, real and relevant to their lives (Baron, in Hosnan, 2014, p320). This is in line with Boud and Felletti who argue that PBL is a constructive way of learning using problems as a stimulus and focusing on student activities (in Hosnan, 2014, pp. 320). That is, this model will teach students to think intelligently by doing a research on the problem, then constructively build student self-reliance, and develop students' learning skills and skills through a series of planning activities, conducting research, and producing specific products framed in a container of projects learning.

During the process and the result of learning to write the character-based poetry using this project based learning model, all will be recorded and processed using the following scoring formats.

**Table 1 Assessment Criteria Learning Character-based Poetry Writing by Using Model Based Project Learning**

No.	Students ' Name	Aspects Valued					Character Value	Score
		Image	Dicti on	Figure of Speech	Rhy me	Rhythm		
1.								
2.								
etc.								

To provide an assessment of the above criteria, the researcher uses a predetermined level of mastery of 1-5. This provision is generally as

follows: (1) very less; (2) less; (3) medium; (4) good; and (5) very well (Nurgiyantoro, 2010, p. 392).



Paramater value of character in poetry, researcher use measuring instrument (1) religious; (2) honest; (3) tolerance; (4) discipline; (5) hard work; (6) creative; (7) independent; (8) democratic; (9) curiosity; (10) the spirit of kebangsaan; (11) love the homeland; (12) appreciate achievement; (13) friendly / communicative; (14) love of peace; (15) likes to read; (16) care about the environment; (17) social concerns; and (18) responsibility. Then, the results will be processed using data analysis, tested with statistics, and the end result of this learning will be recorded into a collection (anthology) of poetry with a character theme.

#### **IV. CONCLUSION**

Learning to write character-filled poetry using project based learning model is expected to be able to overcome the problem of writing students at school. Students are more active and creative in writing ideas and ideas in poetry, in which they hold a moral character or message for their readers and produce an anthology book of poetry as a form of the final product of learning.

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# **AUTHENTIC ASSESSMENT BASED LEARNING TO IMPROVE STUDENT LEARNING MOTIVATION**

Moh. Nurhadi<sup>1)</sup>, Siti Solihah Nurfaidah<sup>2)</sup>, Jaka Permana<sup>3)</sup>

<sup>1,2,3)</sup> Elementary School Teacher FKIP Pasundan University  
mnurhadi@unpas.ac.id

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**Abstract.** Motivation of learning giving an important contribution in the learning process, therefore the motivation of students in the learning process needs to be improved. One way is to present meaningful lessons and guide them to be directly Involved in the learning process Including assessment activities. The assessment in Curriculum 2013 is an authentic assessment. Authentic assessment is a process of collecting various of data that can provide a comprehensive, picture of the development of learners that includes the domains of cognitive, affective and psychomotor. This assessment Allows the teacher to Obtain a result of comprehensive assessment, the which encompasses all aspects of the student's personality, such as moral development, emotional development, social development, cognitive development and other aspects of individual personality. With authentic assessment-based learning is expected to a make learning more Become qualified so as to the make students Become more motivated in learning.

Keywords: authentic assessment, motivation of learning

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## **I. INTRODUCTION**

The learning process becomes insignificant without judgment. Assessment plays an important role in measuring the extent of implementation and achievement of learning objectives. At least an assessment of learning outcomes is useful to help learners reflect on what they know, how they learn, and encourage responsibility in learning. Even the teacher ratings for helpful feedback on their performance in measuring quality also serves to mapping achievement of learning outcomes learners. So that assessment and learning processes are

components that can not be separated in an educational context.

Policies in the curriculum in 2013 led orientation of different learning and assessment. In the 2013 curriculum assessment is made with authentic assessment. Authentic assessment aims to measure a range of skills in a variety of contexts that reflect real-world situations where those skills are used. Kemendikbud (2014) defines authentic assessment (*Authentic Assessment*) as a meaningful measurement significantly over the study of students to the realm of attitudes, skills and knowledge. So it can be





said that this assessment is a comprehensive assessment, which covers all aspects of the personality of students, such as moral development, emotional development, social development, cognitive development and other aspects of the personality of other individuals.

Interest in learning needs to be done with efforts to raise the motivation of learners. Learners who are motivated to learn something will use higher cognitive processes in learning the material, so that students will absorb and prioritize the material better. If the motivation to learn a good student. then the tendency of attention and seriousness of learning will increase, resulting in better learning results. Some of these things have implications for educators to plan how to support the student's motivation. For example, by guiding them to directly engage in activities including an assessment of the learning process.

## **II. DISCUSSION**

### **1. Authentic Assessment**

Authentic Assessment (*Authentic Assessment*) is the measurement of learning outcomes of students to the realm of attitudes, skills and knowledge. The term *Assessment* is synonymous with assessment, measurement, testing, or evaluation. While term *Authentic* is synonymous with original, real, valid or reliable. Thus, authentic

assessment is a form of a task that requires learners to demonstrate the real-world performance significantly, which is the essence of the application of knowledge and skills. Authentic assessment emphasizes the ability of the learner to demonstrate knowledge in a real and meaningful. The assessment activities are not just ask or tapping the knowledge that has been known to the learner, but the real performance of the knowledge that has been mastered.

Authentic assessment has relevance to the scientific approach to learning appropriate to the curriculum in 2013 were able to describe the learning outcome of students, both in order to observe, reason, try, build networks, and others (Yasri, 2013). Alfred De Vito (Kemendikbud, 2014) stated that scientific learning is learning to adopt measures in building science knowledge through scientific method. The learning model that is required is that allows *terbudayanya* scientific thinking skills, *terkembangnya* sense of inquiry and creative thinking abilities of students. The steps of scientific learning are as follows: (1) Viewing (2) ask (3) Gather information (4) associates (5) Communicate.

Hosnan (2014) stated that assessment is authentic or real assessment (*authentic assesment*) assess the knowledge and skills (*performance*) obtained by the students. The principle that should be





applied in authentic assessment are as follows:

- a. Rating authentic reference to the achievement of national standards (based on indicators).
- b. Authentic assessment must balance the three domains. Assessments done enough to give scope to the aspects of knowledge (cognitive), attitudes (affective) and skills (psychomotor) are balanced.

In Permendikbud No. 66 Year 2013 stated that, authentic assessment is a comprehensive assessment conducted to assess the start of the input(*input*), process, and output(*output*) learning. So that assessment is not only done on the results, but see the process as well.

According to (Gulikers, Bastiaens & Kirschner, 2004) argues that there are five dimensions that are interrelated to create authentic assessments are:

- a. Tasks or assignments that accommodate cognitive, affective and psychomotor learners. The task given should also be meaningful to them.
- b. Classroom or learning environment should be able to support learners to be able to explore and optimize the capabilities, both in the cognitive, affective and psychomotor. Learning should be designed to provide a snapshot condition or

situation that will be experienced by learners when they become a professional yng.

- c. Social interaction. Factors in the social environment activities are divided into two kinds, namely in the form of collaborative activities, and individual activities. In collaborative activities, authentic assessment obtained from looking at interactions between learners in solving a problem. While in individual activities, dapat authentic assessment done by looking at how each learner competing and trying to solve the problem individually.
- d. Results of authentic assessment is something original assessment that describes the overall capability of each individual. The results of the assessment may take the form of a product or an idea of learners.
- e. Standards and assessment criteria of the authentic. The standards and criteria of authentic assessment is transparent assessment, the assessment focuses on the ability or competence to be possessed by learners, and assessment is done by using a rubric or portfolio.

The types of authentic assessment consists of: performance evaluation, self-evaluation, essays, projects and portfolios.

- a. Performance assessment of performance assessment is a procedure that uses various forms of tasks to obtain information



about what and how far has been done in a program (Dantes, 2008). Monitoring is based on performance (*performance*) is indicated in completing a given task or problem. The result obtained is a result of the performance.

**b. Essay**

essay requires students to organize, formulate and put forward their own answers. This means that learners do not choose the answer, but the answer in their own words freely. Essay tests can be classified into two forms, namely the open-ended essay tests (*extended-response*) and answers are limited (*restricted-response*) and this depends on the freedom given to the learners to organize or arrange ideas and write the answers.

**c. Assessment Portfolio**

The portfolio is a collection of artefacts (evidence of work / activity / data) as proof (*evidence*) that shows the progress and achievement of a program. The use of portfolio in evaluation activities actually have been done, especially in language education (Dantes, 2008).

**d. Project Assessment**

Assessment project (*project assessment*) is an assessment of the tasks to be completed by learners by period / a specified time. Completion of tasks referred to in the form of an

investigation carried out by the students, ranging from planning, data collection, organization, processing, analysis, and presentation of data. The assessment report can be poured in the form of a poster or writing.

**e. Self-evaluation**

Self-evaluation is a way to look inside yourself. Through self-evaluation that learners can see the advantages and disadvantages, to further these shortcomings become improvement goals (*improvement goal*). Thus, the learner is responsible for the process and achievement of learning goals.

Authentic assessment data can be analyzed using qualitative methods, kuantitatif, as well as quantitatively. Qualitative analysis of authentic assessment in the form of a narrative or a description of the achievement of learning outcomes of students accurately. Quantitative analysis of authentic assessment data to apply a rubric score or a checklist (*checklist*) to assess the relative responses of learners relative to the criteria in a limited range of four or more levels of proficiency (eg highly proficient, proficient, partially proficient and not proficient). An assessment rubric can be either analytic or holistic. Holistic analysis gives an overall score of learners' performance, so that it can be effective feedback for teachers in



designing future learning and learners in enhancing the learning competencies.

In authentic assessment notice a balance between competence assessment of attitudes, knowledge and skills that are tailored to the characteristics of learners. According Kunandar (2014), the characteristics of authentic assessment is:

- a. Must measure all aspects of learning, namely performance and results or products. This means that, in assessing learners should measure aspects of performance (*performance*) and the products or results done by learners. In assessing the performance and product performance and make sure that the product is a reflection of the competence of such learners are real and objective.
- b. Carried out during and after the learning process takes place. That is, in the assessment of learners, teachers are required to conduct an assessment of the ability or competence (ability or competence of learners in learning activities) and the ability or competence of learners after learning activities.
- c. Using various tools and resources. This means that, in assessing learners should use a variety of assessment techniques (adjusted to the demands of competence) and use the resources or data that can be used as information describing

the mastery of competence of learners.

- d. The test is only one assessment data collection tool. That is, in the assessment of learners towards the achievement of specific competences should be comprehensively and not just rely on test results alone. Other information that supports the attainment of learners can be used as an ingredient in making judgments.
- e. The tasks given to learners must reflect portions of learners real life every day, they should be able to share the experience or activities they do every day.
- f. Assessment must emphasize the depth of knowledge and skills of learners, not generality (quantity). That is, in the assessment of students toward mastery of certain competencies objectively.

Authentic assessment also has the characteristics or special features. Characteristic of authentic assessment by Kunandar (2014) can be described as follows:

- a. authentic assessment can be done to measure the achievement of competency to one or several basic competence (formative) and the attainment of the standards of competence or core competency in one semester (summative).
- b. Measure skills and performance. That is, the authentic assessment



- is intended to measure the achievement of competencies that emphasize aspects of skills (skills) and performance (performance), not only to measure competence in nature given the fact (rote learning and memory).
- c. Sustainable and integrated. That is, in authentic assessment must be continuous (continuous) and a unity intact as a tool to gather information on the achievement of competence of learners.
  - d. Can be used as a feedback. That is, the authentic assessments conducted by teachers can be used as feedback to the achievement of a comprehensive competence of learners.

## **2. Motivation**

Motivation is the driving factor and encouragement that can lead to a sense of excitement and also able to change human behavior or individual to lead to better things for himself. Motivation is a change in one's personal or marked by the emergence of feelings and reactions to achieve the goal. Motivation can be viewed from two properties, namely intrinsic

## **3. Authentic Assessment Based Learning To Enhance Student Learning Motivation.**

In the 2013 assessment in the learning curriculum is done with an authentic assessment. In contrast to the assessment of conventional learning where the teacher only

motivation and extrinsic motivation. Intrinsic motivation is the desire to act caused by the driving of the individual, whereas extrinsic motivation is motivation existence due to the influence of outside individuals. Behavior that occurs is influenced by the environment (Ma'mun, 2004).

Motivation to learn is a process that encourages learning, direction, and persistence of behavior. That is, the behavior is behavior that is motivated energetic, purposeful and long-lasting (Agus Suprijono, 2009). Winkel (1983) defines that "Motivation to learn is the overall driving force in the student who raises the activities and provide direction on learning". Of the various terms that can be taken notion that motivation to learn is an impulse or motive power from within the individual that provides direction and encouragement in learning activities, so as to achieve the desired aim. So the role of motivation for students to learn is very important. With the motivation will improve, strengthen and direct the learning process, so that would be obtained effectiveness in learning.

focuses on assessment is summative or assessment focuses on the results obtained by the students at the end of the learning process, the ultimate goal of education today is to develop competence of learners to pass judgment on the learning process that they do (Birenbaum & Dochy, 1996).



Authentic assessment can establish a valid assessment and accountability. This means that the results of these assessments can really interpret the ability of learners during and after the learning process. Therefore, the assignment given to students should be able to describe the competencies required in the assessment.

Implementation Penialain authentic potentially bring various benefits and advantages, which learners can play an active role in the assessment process, so as to reduce the anxiety of learners, and are not afraid of getting bad grades that can interfere with self-esteem because Ratings authentic formed of an assessment of learning activities that are constructivism, meaning that the assessment carried out on the establishment of a knowledge learner

based on the experiences and problems found in everyday life, so it will feel more meaningful learning (Herrington, 1998). Authentic assessments provide valuable information to educators on the progress of learners and the success of the instruction. Through the curriculum in 2013, authentic assessment becomes a serious emphasis. In the execution of the authentic assessment educators must consider the balance between competence assessment of attitudes, knowledge and skills in accordance with the development of the characteristics of learners.

From the above description, it created an indicator to see the implementation of authentic learning assessment process as shown in the following table.

**Table-Based Learning Indicators Authentic Assessment**

No	Indicator Authentic Assessment	Aspect / Dimension Rated	Criteria Rating
1	Assignment is Authentic	Content	Berkaitan with real life.
		Focus Assignment	Integrate aspects of cognitive, affective, and psychomotor.
		Prior knowledge of students.	<ul style="list-style-type: none"> <li>See, assess and compare the students' prior</li> </ul>
		significance of knowledge .	<ul style="list-style-type: none"> <li>Meaningfulness in terms of content and technical provision of duty.</li> <li>meaningful for</li> </ul>



No	IndicatorAuthentic Assessment	Aspect / Dimension Rated	Criteria Rating
		The independenc estudents.	<ul style="list-style-type: none"> <li>● Independence in tasks and permsalahan given.</li> </ul>
2	Environmental Aspects	of Learning Realistic	<ul style="list-style-type: none"> <li>● Bring up the atmosphere, content, appropriate learning environment with problems in everyday life.</li> </ul>
		Practice professionalism.	<ul style="list-style-type: none"> <li>● Encourage and emphasize learning practices in accordance with the profession of a teacher.</li> <li>● Providing real problems experienced by a lady teacher.</li> </ul>
		Learning Resources	<ul style="list-style-type: none"> <li>● Display, using a variety of learning resources.</li> <li>● Finding and linking of information to develop learning.</li> </ul>
		time	<ul style="list-style-type: none"> <li>● Givetime to work on or display the assigned task.</li> </ul>
3	Aspect Social Interaction	Collaboration	<ul style="list-style-type: none"> <li>● Conducting collaboration in the task.</li> <li>● Menilah and assess aspects of social interactions that arise in learning.</li> <li>● View and assess the positive interdependence that appears daalamlearning,</li> <li>● Noting assess the attitude of individual responsibility.</li> </ul>
		Individual	<ul style="list-style-type: none"> <li>● Providing space for students to compete.</li> <li>● Assess the competition that emerged during learning.</li> </ul>
4	Assessment Authentic	Products and Solutions.	<ul style="list-style-type: none"> <li>● Showing good results of the work (product or solution) through oral or written.</li> </ul>





No	IndicatorAuthentic Assessment	Aspect / Dimension Rated	Criteria Rating
		Indicators in Learning.	<ul style="list-style-type: none"> <li>● Include or relate to various indicators of learning(<i>multipleindicators oflearning</i>).</li> </ul>
		Authenticity .	<ul style="list-style-type: none"> <li>● The authenticity of the product and the value obtained by the students during the learning.</li> </ul>
5	Authentic Assessment Criteria	Criteria or Context	<ul style="list-style-type: none"> <li>● Assess Aspects of affective, cognitive and psychomotor</li> <li>● Context based on real-life issues or everyday problems.</li> </ul>
		Focus Kenilaian	<ul style="list-style-type: none"> <li>● memperhatikan and assess basic competencies that must be owned by teachers (pedagogical, professional, social, personality).</li> <li>● Seeing the students' ability in solving problems.</li> </ul>
		Transparent	<ul style="list-style-type: none"> <li>● assessment is done openly</li> </ul>
		Assessment	<ul style="list-style-type: none"> <li>● Using Rubrics and assessment portfolios</li> </ul>

By applying aspects above authentic assessment of learning is expected to provide quality learning and meaningful to the students so that they can increase their motivation to learn. This is in line with the opinions Mueller (2005) which says that the authentic assessment applied to learners will be able to deliver learning that is meaningful to them, it is because authentic assessment is a form of a task that requires learners to demonstrate the performance in the real world in meaningful is the essence of the application of knowledge and skills. The application of authentic assessment also takes a toll on students become more calm

and positive in looking at the results of the assessment of learning. They will not be too concerned about the results of the assessment that they will get, because they are involved in the assessment process conducted in the learning process.

### III. CONCLUSION

authentic assessments based learning bring an atmosphere of learning fun and challenging. For the teacher or professor, this study will provide a comprehensive assessment results, and authentic. while for students authentic assessments to make teaching more meaningful. Ratings do not only focus on the end



result, but also pay attention to some aspects of cognitive, affective, and psychomotor appear in the learning process. To increase the interest and motivation of students, learning is designed to fit the picture of the reality in daily life and the assignment will be problems they experienced while working in accordance with the profession. Thus, the application of authentic assessment based learning is expected to enhance students' learning motivation.

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# **IMPLEMENTATION OF LANGUAGE GAMES (CATHARSIS) TO INCREASE ACTIVITY OF IVA TEACHER AT SD NEGERI 01 METRO PUSAT**

Arifin Ahmad

Elementary School Teacher FKIP Pasundan University

arifinahmad@unpas.ac.id

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**Abstract.** Creativity and innovation are needed for teachers in delivering active learning with good quality. Increased activity of a teacher in teaching affects the student learning activities, but in fact the learning system of the teacher of class IVA SD Negeri 01 Metro Pusat is still using lecture method dominantly so that the student learning activity does not increased significantly. The purpose of this research is to improve teacher's activity through the application of game language (catharsis) in class IVA SD Negeri 01 Metro Pusat. The method used in this research is descriptive qualitative through teacher performance observation sheet. The result of data analysis showed that the teacher's activity in cycle I (70%), cycle II (80%), It means there is an increase 10%. While the teacher's activity from cycle II (80%) to cicle III (90%) increased 10

**Keywords :** activity, teacher, game language (catharsis).

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## **I. INTRODUCTION**

In the rapid development of technology such as nowadays make the students in elementary school become so familiar with the world of technology, for technological learners is very fun because interesting things can be obtained easily. Once the disclosure of information to make learners can learn from anywhere and anytime, this is one of the major challenges for a teacher in primary school to be able to present learning fun and in accordance with the needs of today's learners. In line with this, Suyatno (2005: 1) states that, learning should be interesting and fun, because interesting learning means having an intriguing element for students to

continue to follow, students have the motivation to continue to follow the learning. Conversely, if the learning by the teacher does not menyenangkan and not in accordance with the needs of learners then the students pay less attention to the material submitted by teachers. To answer the challenges of the development of the teacher must be able to think creatively and act actively to be able to realize the quality of learning and enjoyed by learners.

To make learning interesting and qualified and enjoyable, the activity of a teacher is also highly demanded, a teacher should be able to concoct the learning that will be done with as much as possible plus an



innovation and new ways to get the learning that is liked by learners, thus making learning to read into more interesting.

Reality in the field found that from the observations of researchers in class IVA SD Negeri 01 Metro Pusat, teachers are less active and tend to be passive in teaching. Teachers in grade IVA SD Negeri 01 Metro Pusat still tend to do monotonous learning as just relying on books and just reproduce the lecture in front of the class, it makes learners less passionate and less enthusiastic attention to learning, so that teaching and learning activities of learners tend to less active.

To overcome the problem is required a new innovation in learning that is able to present an active learning situation and fun one of them is implementing the game in learning. The game that can be used is a language license (catharsis), because the language game (catharsis) makes teachers active in teaching and learners are also happy.

The benefit of using games in learning is not only to make teachers active, but also to learners. because the language game (catharsis) is done by learners who are guided by the teacher. Learners also do so in accordance with the competence to be achieved. In implementing the learning in elementary school, the role of the game in learning is very important because with the game will make learning better and interesting.

So that learning can grow the skills of learners with the maximum.

## **II. LITERATURE REVIEW**

### **1. Understanding of Learning**

#### **Activities**

The language of learning activity comes from two words, namely activity and learning. Activities in Big Indonesian Dictionary defined as activity, liveliness, busyness. While learning in Big Indonesian Dictionary means trying to know something; trying to gain knowledge and skills (Qodratillah, 2008: 24).

Furthermore, in the Regulation of the Minister of National Education No. 41 of 2007 in (Ekaputra, 2009: 2) on Process Standards for Basic and Secondary Education Units stated that learning activities are activities to process experience and or practice by listening, reading, writing, discussing, reflecting stimuli , and solve the problem.

From the above explanation can be concluded that learning activity means an activity or activity to gain knowledge and skills in a certain way.

### **2. Definition of Language Game (Catharsis)**

The game is an activity to acquire a certain skill in an exhilarating way. If the skills acquired in the game are of a certain language skill, the game is called a language game. (Soeparno in Djuanda, 2006: 94).



Further according to Hrbata (2009: 7) understanding of language games is a game to gain pleasure and to practice language skills (listening, speaking, reading and writing). If a game raises fun but does not acquire certain language skills, then the game is not a language game. Conversely, if an activity to practice a particular language skills, but there is no element of fun then it is not called a language game. Can be called a language game, if an activity contains both elements of fun and practice language skills (listening, speaking, reading and writing).

The game of language has a dual purpose, namely to gain excitement as a function of play, and to train certain language skills as a subject matter. Language games are not meant to measure or evaluate student learning outcomes. Even if imposed, not a good evaluation tool, because the language of the game contains elements of considerable speculation (Soeparno in Djuanda, 2006: 94).

From the above understanding it can be concluded that language games are an interesting set of activities and can practice language skills (listening, speaking, reading and writing).

### **3. Miscellaneous Language Games (Catharsis)**

#### **1). Stabilo sentence.**

Stabilous sentence is a language game that is performed by marking with "highlighter" or the like in the wrong sentences in the text of

the discourse. Wrong sentences are deliberately created so that students can understand the correct and false sentences in the text of the discourse carefully. The purpose of games is that learners can read quickly, carefully, and understand the sentence. The tool used is the discourse paper (Djuanda, 2006: 98).

#### **2). Complete the sentence**

Completing the sentence is a language game that is done by completing the missing sentences of his words in the text of the discourse. The missing word in the text of the discourse comes with the words provided but the word provided to fill more of the missing word with the purpose of being a liar. The purpose of games is that learners can read clearly and accurately. The tool used is a discourse paper. (Suyatno, 2005: 80-81).

#### **3). The word of discourse**

The word of discourse is a language game that is done by expressing a word derived from the text of discourse. The word said by the initial group then by another group is rewarded with a word relating to the word of the early group. The purpose of games is that learners can read the discourse carefully. The tool used is a discourse paper (Djuanda, 2006: 99).

### **4. Learning Steps with Language Games (Catharsis)**

#### **1) Initial Activity**

- a. Teachers plan and Prepare semester program, syllabus, lesson plan and Student Worksheet.



- b. The teacher opens the lesson and motivates the students and imparts apperception and informs the learning objectives.
- 2) Core Activities
  - a. Learners form several groups, then the teacher gives an explanation.
  - b. The teacher explains and gives examples of games.
  - c. Learners are given the opportunity to ask questions if anyone does not understand.
  - d. Learners read the text of discourse by using the language game (catharsis).
  - e. Teacher walks around and facilitates learners' difficulties
  - f. Learners work on the language game (catharsis).
  - g. Each group collects the work of the group.
- 3) End activities
  - a. Students with teachers make conclusions.
  - b. Students are given strengthening and motivation by the teacher (Adaptation of Arsyad, 2004: 46).

From the above explanation can be concluded that in carrying out reading learning with game language (katarsis), there are three main things done that is initial activity, core activity and cover activity.

### III. METHOD

In this study the method used is qualitative through classroom action research. The location of this research is held in SD Negeri 01 Metro Pusat, Metro City of Lampung Province. he subject of this research

is a teacher of class IVA SD Negeri 01 Metro Pusat.

Data collection technique used in this research is nontes technique used to know teacher performance response to learning through game of language (catharsis). Data collection techniques used in this study is to use data collection tools, namely observation records (observation). Data analysis technique used is qualitative analysis for learning activity data from observation sheet.

### IV. RESULTS AND DISCUSSION

Teacher activity in the implementation of learning process using game language (catharsis) can run well although still need an increase so that learners more active when learning activity and skill result can be more improved. Based on the observations of researchers can be seen recapitulation of increased teacher activity in the process of learning the reading skills of learners in learning using the game of language (catharsis) as follows.

*Table 1. Recapitulation of percentage improvement of teacher performance in learning process.*

No	SIKLUS					
	I		II		III	
	A (%)	B (%)	A (%)	B (%)	A (%)	B (%)
1	66,67	73,33	80	80	86,67	93,33
Average	70%		80%		90%	

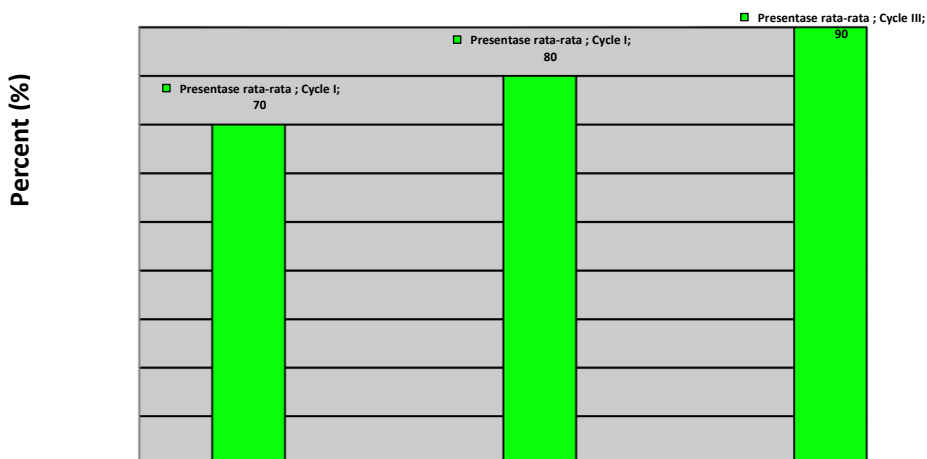




Based on data analysis each cycle obtained the average percentage of the increase in student learning activities cycle I 70.69%, cycle II by 80% and in the third cycle of 89.31%. The average percentage of students' reading skill improvement in cycle I was 32 students (74,42%) increased to 36 students (83,72%) in cycle II and increased again to 39 students (90,70%) in cycle III. The average percentage of the increase in students' learning outcomes in cycle I were 31 students (72.09%) had reached the completeness of study, there were 35

students (81.40%), and in cycle III there were 38 students (88.37%) achieve learning mastery.

The percentage of teacher performance in cycle I was 70% increased to 80% in cycle II, increased by 10% and from cycle II increased again in cycle III to 90%, increased by 10% again. Based on this it can be seen that the percentage of each cycle has increased, from cycle I to cycle II, and from cycle II to cycle III. This can be clarified on the graph below.



Graph 1. Recapitulation of increased teacher activity in the learning process.

## V. CONCLUSIONS AND RECOMMENDATIONS

Based on the exposure of data and discussions that have been described then it can be concluded that learning to use language games (catharsis) can increase the activity of teachers in the class IVA SD Negeri 01 Metro Pusat in teaching.

Based on the conclusion of the above research results, the following suggestions can be given.

1. Teachers should always hold the principles in implementing the language game (catharsis) in learning
2. Teachers should practice and keep on trying to use language games (catharsis) in learning because the language game (catharsis) in



learning is not enough once mastered

3. We encourage teachers to discuss and exchange ideas with colleagues in order to improve the quality of learning.

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# THE ANALYSIS OF ELEMENTARY SCHOOL STUDENT'S ACHIEVEMENT OF SCIENCE PROCESS SKILLS AND SPIRITUAL ATTITUDE THROUGH 2006 CURRICULUM AND 2013 CURRICULUM

Sofyan Hendrayana

Elementary School Teacher FKIP Pasundan University

sopyanhendrayana@unpas.ac.id

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**Abstract.** Based on TIMMS and PISA survey result from 2000 to 2012 indicated that science learning quality in Indonesia is still on the lower level. It is caused by students who are less accustomed to the learning that develop science process skills and inculcate attitude. In addition, nowadays there are schools that use 2006 and 2013 curriculum. Based on those problems, the present of the study aimed to find out how are the fourth grade elementary schools students' achievement of science process skills and spiritual attitude through 2013 curriculum and 2006 curriculum in the SDA (natural recourses) science concept. The study is done qualitatively to the two elementary schools that used 2006 curriculum and two schools that used 2013 curriculum. The instruments of the study are science process skills test in multiple choice, spiritual attitude questionnaire, and videograph to support the researcher to analyze the emerging of students' science process skills and spiritual attitude in learning process. The result of the study show that the means of science process skills test for elementary school that used curriculum 2006 is 64,92%, and 65,53% for those that used 2013 curriculum, whereas the emerging of science process skills for elementary school that used 2006 curriculum is 19,95%, and 17,85% for those that used 2013 curriculum. On the other hand, the achievement of students' spiritual attitude for elementary school 2006 curriculum is 58,90% whereas elementary school 2013 curriculum is 59,15%. Besides that, the emerging of spiritual attitude in learning process for elementary school 2006 curriculum is 1,60%, and elementary school 2013 curriculum is 2,70%. The conclusion of the study is the elementary school students' achievement of science process skills that used 2013 curriculum is greater than the school that used 2006 curriculum. However those contrary to the emerging in learning process, whereas students' spiritual attitude achievement 2013 curriculum is greater than elementary school 2006 curriculum as well as the emerging spiritual attitude in learning.

**Keywords :** science process skills, spiritual attitude, 2006 curriculum, and 2013 curriculum

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## I. INTRODUCTION

Indonesia has made frequent curriculum changes, most recently the turn of the 2006 Curriculum known as the Education Unit Level Curriculum (KTSP) to the Curriculum 2013. 2006

Curriculum Enforcement from 2006 to mid 2013. For approximately seven years the 2006 Curriculum is used as a reference. Based on the results of PISA survey in 2009 on science subjects that almost all Indonesian



students only master lessons up to level 3, while many other countries are up to level 4, 5, even 6. With the belief that all human beings are created equal, it can be interpreted that learning which do less encourage students to actively and independently in finding and finding the concept independently, Kusnandar (2007, p. 20). Besides, of course there are problems in the learning process that is done, especially the science lesson which has not yet developed the aspect of science process skill (PPP) and attitude planting.

Based on the results of research that has been done on the skills of the science process, as did Giarty, S (2014, pp. 1) that is doing classroom action research by looking at the improvement of science process skill of fourth graders of elementary school, with the result obtained is the increase of science process skill equal to 15,73% for cycle 1 and 17% for cycle 2. While research conducted by Anam, RS (2013, pp. 98) done to fourth grader of elementary school, resulted achievement of science process skill with practice activity reaching medium category that is equal to 73,3% compared with non-practicum. But the research is only seen from the achievement through the 2006 Curriculum has not seen how the achievement through the Curriculum 2013.

The concept of science learning that can be developed through the science process skills is one of them is the concept of Natural Resources

(SDA), where in the Curriculum 2006 the coverage of the material concerning the identification of issues that develop in the natural environment, even natural resources material reappear in Curriculum 2013. This material is materials that require realistic understanding and solutions, requiring high-level thinking skills to be applied in everyday life.

As an integral part of the national education system, learning in schools should have functions and objectives that refer to national education. In this connection schools should develop the ability and form the character and civilization of dignified nation in order to educate the life of the nation with the aim to develop the potential of students to become human beings who believe and pious to God Almighty, noble, healthy, knowledgeable, skilled, creative, independent, and become a democratic and responsible citizen. Therefore it is necessary for the packaging of learning that can explore the potential of students so that students are ready to face the challenges.

One potential that can be developed is the potential of students' spiritual attitudes. Susilowati (2013, p1.1) says that in the Curriculum 2013 more emphasis on the domain of spiritual attitudes, social attitudes, knowledge and skills. This spiritual aspect can be a moral fortress or character for the life of the student in the face of all problems. We often find a condition where students get a



higher value of knowledge than the moral (spiritual) attitudes shown, such as the value of Mathematics 9, IPA 9 but there are still elementary school students who say rude by carrying the name of the animal, less concerned about the environment, cheating on the exam, brawny high schools, to corruption in every institutional element. It shows that the man has not embedded his spiritual values and when the teacher's learning only focus on the mastery of cognitive ability alone, without the ability to follow how students can connect the teaching materials with the greatness of God Almighty (YME), as well as positive habits based on religion . This shows that there is no balance between hard skills and soft skills.

The research that has been done on the spiritual attitude of elementary students, as performed by Nurhayati, L.A. et.al (2010, p.1) that there is a very significant positive relation between environmental knowledge and the spirituality of the students. While the results of research Afifah, H. (2011, pp. 67) obtained the average spiritual intelligence of students reached 64 in both categories and the average learning achievement of moral character to 68 in either category, while the conclusion that spiritual intelligence can affect learning achievement. However, the study conducted through the 2006 Curriculum has not been compared with the outcomes of learning through the Curriculum 2013.

From these findings it can be seen that the science process skills and spiritual attitude of the students is very important to be applied in balancing soft skills and hard skills both through Curriculum 2006 and Curriculum 2013.

## **II. STUDY OF MATERIAL**

### **A. Science Process Skills**

Samatowa (2006, pp. 137) suggests that "science process skills are the intellectual skills that scientists have in the study of natural phenomena". The science process skills used by these scientists can be studied by students in simpler forms according to the stage of child development. The Nuryani and Andrian (in Nugraha, A. 2005, p 125) define "the skills of the process of science are all the skills necessary to acquire, develop and apply the concepts, principles, laws and theories of science, whether in the form of mental skills, physical skills (manual) as well as social skills".

Based on the skill component of the science process from several experts, then in this study the components used as the focus of research is the component of the science process skills of Rustaman. The components are not examined all but only a few, that is; skills ask questions, classify (group), predict, apply concepts, plan experiments, and draw conclusions. This is because the six components are the aspect that best suits the developmental task of fourth grade elementary school students, namely the basic thinking



development task that leads to high level thinking exercise early on, and the six aspects require critical thinking, logical, and systematic. This is in line with Sagala's opinion (2008, p.57) that in order for students to be successful in learning, certain requirements are required, one of which is to practice high thinking skills for their students. It is characterized by critical, logical, systematic, and objective thinking.

A number of studies have been conducted on the skills of the science process, as did Giarty, S. (2014, pp. 1) that is conducting classroom action research by looking at improving the science process skill of fourth grade students of SD, , 73% for cycle 1 and 17% for cycle 2. While research conducted by Anam, RS (2013, pp. 98) done to fourth graders of elementary school, resulted in the achievement of science process skill with practicum activity reaching moderate category that is equal to 73,3% compared with non-practicum. However, the study focused only on the application of the 2006 Curriculum in schools, not yet seen how the achievements obtained from schools that implement the Curriculum 2013.

## **B. Spiritual Attitude**

Spiritual in essence is the intelligence to deal with problems and solve problems related to meaning and value by placing the behavior of human life in the context of a wider and rich. According to Hamid, S.A.

(1999, p.3) that "the spiritual is the belief in relation to the Almighty". Meanwhile, according to Harjani, H. (2008, p.6) states that "spiritual intelligence is the ability to listen to conscience to intelligently connect with God and others in giving the best and useful".

According to Rossiter, G. (in de Souza, M. et.al., 2009, p.685) states that religious and spiritual is a different matter, the religious is more connoted to the act of worshipping the God YME in particular, such as the prayer worship performed Muslims. While the spiritual is an attitude or moral action that is done in everyday life as a form of influence from the religious. Basically, spiritual is a part of religious application, even spiritual can be influenced by a discipline, as in the lesson of Islamic Religious Education (PAI) there is spiritual in the form of attitude of moral character, in science we know scientific attitude, in Social Sciences (IPS ) we know social attitudes, they are part of the spiritual.

The above is consistent with Lickona's opinion (in Engelbertrus and Betriks, 2014, p. 47) that morality is part of the character, in which characters have three interrelated components of moral knowledge, moral feeling, and moral behavior. If it is related to Rossiter's opinion then it can be concluded that spiritual attitudes are part of the character.

Spiritual attitudes are basically already owned by humans from birth, that is, as long as humans





have an understanding of what is good to do and what is not good not to do. On the other hand the existence of spiritual attitudes that already exist in man as a capital in behaving should always be maintained and nurtured with new knowledge that build, so that the human heart will feel and understand the environment and surroundings. This is because the spiritual attitude of the human being coupled with new knowledge that builds up in a positive direction, supported by emotional level and intelligence will result in action. Such actions can be positive or negative depending on the acceptance of knowledge from the environment. Knowledge can be either taught religious knowledge or actions received by humans from the environment. This corresponds to the image of the spiritual scheme according to de Souza.

Spiritual attitudes are increasingly developed in the next curriculum of the Curriculum 2013, where in the Curriculum 2013 spiritual attitudes are placed on the first Core Competence (KI 1) with the following components; receive, run, respect, live, and practice. The 2013 curriculum emphasizes the modern pedagogic dimension of learning, which is integrative thematic by using a scientific approach. The underlying theme of integrative thematic learning is that learning when initiated by searching the facts through observation is supported by

the topic or theme as a unifier between disciplines.

Good knowledge is not enough if it is not supported by activities involving psychomoric or student skills such as practicum activities. It is intended that students can experience positive development both in terms of knowledge and skills. But here teachers have a very important role so that knowledge and skills can evoke an attitude that is in line with expectations, one of which is a scientific attitude. So in other words based on figure 2, that scientific attitude will arise if supported with the right knowledge and good skills.

### **III. RESEARCH METHODS**

The population in this research is the fourth graders of elementary school in the school applying curriculum 2006 and elementary school applying Curriculum 2013 located in Cirebon city area. The sample selection of this research is done by using purposive sampling technique, where the sample is determined in accordance with the criteria of research problems, namely schools that use Curriculum 2006 and Curriculum 2013. The number of schools to be studied should be balanced between schools using the 2006 Curriculum and Curriculum 2013, schools located in the city area of Cirebon. The method used in this research is descriptive method. This method is done in describing the



achievement of science process skills and spiritual student attitude of elementary school through Curriculum 2006 and Curriculum 2013. Descriptive research aims to describe things that appear in the research process both seen from the process and results. Descriptions include: recording, analysis, and interpretation of the phenomenon of current events. The instruments used are; science process skill test, spiritual attitude questionnaire, video

recording with the software videograph software.

#### **IV. RESEARCH RESULT**

##### **A. Achieving the Skills of the Science Process Judging from the Test Results**

The achievement of students' science process skills derived from the test data.

Table 1. Data of Student Science Skills Test Achievement

No.	Components of Process Skills of Science	Curriculum 2006			Curriculum 2013			Component Average
		S1 (%)	S2 (%)	Average (%)	S3 (%)	S4 (%)	Average (%)	
1.	Asking Questions	63	58	60,5	63.5	68	65,75	63,13
2.	Classify	78,7	72	75,35	68.1	69,3	68,7	72,03
3.	Predicting	76	64	70	56.3	58	57,15	63,60
4.	Applying the Concept	62,7	61.3	62	70.8	60	65,4	63,87
5.	Planning an Experience	61	53	57	60.4	62	61,2	59,10
6.	Drawing Conclusion	68	61.3	64,65	80.6	69,3	74,95	69.80
Average Percentage of Each Curriculum				64,92			65,53	

*Information : S1 (School 1), S2 (School 2), S3 (School 3), dan S4 (School 4)*

Based on the table looks at the components classify, where schools in both curriculum shows a fairly high average achievement rate of 72.03%, it means that the component almost many students who have mastered the ability to classify both in the aspects of grouping based on similarities and differences . This is because students

are getting used to facing the type of classification problem. This is supported by teachers in the learning process, ie almost every teacher has been able to master in bringing the skills of special science processes in the classification component.

The achievement of percentage of science process skill as a whole seen from each component, that is school with Curriculum 2013 able to show percentage of achievement of science process skill test is bigger



than with average percentage of school with Curriculum 2006 that is by 0,61% difference, for SD with The 2006 curriculum amounted to 64.92% while the SD with the Curriculum 2013 was 65.53%. This is appropriate when viewed from the aspect of applying the scientific approach applied to elementary schools that have applied the Curriculum 2013. Where the scientific approach in its process emphasizes the application of science process skills. This is in line with the opinion of Kemdikbud (2014, p. 18) that "the learning process with a scientific approach can be matched by a scientific process and it is believed that the scientific approach is the golden thread of development and development of attitudes, skills and knowledge."

Permendikbud Number 81 A Year 2013 attachment IV (Kemdikbud (2014, p.19) that in the

scientific approach students are invited to explore the ability to observe, question, collect information, process information, and communicate. These five aspects are part of the skills of the science process that can guide the students to find their own knowledge, and that means that elementary school applying Curriculum 2013 has shown achievement of average percentage of science process skill which is superior compared to SD applying of Curriculum 2006, especially achievement of learning result still depend on creativity of teacher in creating process of learning meaningful, this is in line with Ausubel's opinion (in Dahar, RW 1996, pp. 111) states that "meaningful learning occurs only when students find their own knowledge by linking information obtained with their cognitive structure" which is carried out not conventionally but must use

No	Components of Process Skills of Science	Curriculum 2006					Curriculum 2013					Component Average
		G1		G2		Average (%)	G3		G4		Average (%)	
		minute	(%)	minute	(%)		minute	(%)	minute	(%)		
1.	Asking Questions	0,67	0,50	1,67	0,70	0,60	12,3	2,80	1,33	0,20	1,50	1,05
2.	Classify	21	17,30	28,7	12,60	14,95	49,7	11,10	5	0,70	5,90	10,43
3.	Predicting	0,67	0,50	1	0,40	0,45	9	2,00	1,67	0,20	1,10	0,78
4.	Applying the Concept	2	1,60	0	0	0,80	10	2,20	7,33	0,90	1,55	1,18
5.	Planning an Experience	0	0	13,3	5,80	2,90	50,7	11,40	0	0	5,70	4,30
6.	Drawing Conclusion	0,67	0,50	0	0	0,25	17,3	3,90	2	0,30	2,10	1,18
Σ			20,40		19,50	19,95		33,40		2,30	17,85	
Average Percent of Every Occurrence						3,33					2,98	



an approach or model that enables students to have meaningful learning, as is the case in Yanthi, N. (2012, pp. 89). It is proved that there is a difference in the increase of science process skill between conventional learning with guided inquiri application with statistical test of t value  $(6,466) > t$  table (95%)  $(n = 29)$  with sig.  $(0,000) < 0.05$ . Meanwhile, based on Samsudin (2009, pp. 105) research, it is proven that learning problem based learning can improve students' science process skill when compared with conventional learning, with preliminary and final test obtained an increase of 34.5% in experimental class and 20% in class control.

Based on the above table it can be seen that the average level of achievement of students' science process skills between elementary schools implementing Curriculum 2006 with SD applying Curriculum 2013 results not far adrift. However, the difference in achievement is clearly seen, where schools with the 2013 Curriculum are greater than the schools that apply the 2006 Curriculum by 1.76. SD with the 2006 Curriculum average score obtained by 63.96 while the 2013

*Information: G1 (Teacher 1), G2 (Teacher 2), G3 (Teacher 3), and G4 (Teacher 4)*

Based on the table on the previous page shows that the average percentage of occurrences of science

Curriculum average score obtained of 65.72.

Sekaitan with the results of the discussion above shows that learning by facilitated through meaningful learning models such as scientific approach in Curriculum 2013, inquiri model, and contextual approach can improve students' skills in science process skills. This is in line with the opinion of Dökme, i and Aydinli, e (2009, p 544) that science learning in elementary schools with inquiri model can develop students' skill in science process skills.

## **2. The Appearance of Processing Skills of Science in Learning**

In observing the emergence of science process skills in learning, researchers use videograph as one software that allows researchers to analyze the emergence of an aspect through video. The ease allows researchers to adjust the duration of the analysis, determine the expected indicator of emergence until the results can be out in SPSS 20. The average appearance of students' science process skills in the learning process can be seen in the following table.

process skills in the process of learning for elementary school with the 2006 Curriculum shows a larger number than the SD that apply Curriculum 2013, while the difference is 0.35%. This is inversely proportional to the achievement of the



test results. The results of elementary school with curriculum 2013 greater achievement than SD with Curriculum 2006, while in the process of the emergence of science process skills in learning, SD with Curriculum 2006 greater achievement than SD with Curriculum 2013. This is very ironic if viewed from the aspect of the process, where the Curriculum 2013 in the process is facilitated by the use of a scientific approach that refers to process skills. This is again dependent on teachers, where teachers are required to be more creative in developing learning, even in the Curriculum 2013 every aspect has been facilitated by the government, such as the book teachers and student books, reference Learning Implementation Plan (RPP), syllabus and some questions enrichment already contained in the book of teachers. But if the teacher's understanding of the learning process in the Curriculum 2013 is still low, then in the process many possible aspects do not arise.

On the other hand, schools implementing the 2006 Curriculum have an almost uniform science skill emergence rate of 20.40%, while the G2 school is 19.50%. This has a tendency that the two teachers almost have the same level of mastery of skills in generating students' science process skills in the classroom, although there are still components that have not yet emerged in school G1 that is the experimental planning component, while the G2 schools that

have not yet emerged are components of applying the concept and draw conclusions. But if researchers observe especially schools that implement the Curriculum 2013, seen a significant difference, where the school on G3 has a level of science process skills appearance of 33.40% while at school G4 of 2.30%. This suggests that G3 has a deeper understanding of science's skill-building process by showing the appearance data on each component. But it is different in G4 that there is still a component of process skill that does not appear that is planning the experiment.

Learning process is not always effective and efficient and the result of teaching and learning process is not always optimal, because there are a number of obstacles. Therefore, teachers in providing course material only useful and useful for their students. The material is tailored to their needs for the lesson. Learning like this will give priority to mastery of science, and it is believed will provide opportunities for more creative students and teachers more professional. Thus learning will be more meaningful where the teacher is able to create learning conditions that can build students' creativity to master science and have life skills. This agrees with Thorndike (in Sagala, S. 2008, p.501) that "learning is the process of acquiring skills, skills, and attitudes."



### 3. Achievement of Student's Spiritual Attitude

In this study the researchers also explained the level of attainment of students' spiritual attitudes through

a questionnaire instrument related to the statement about SDA.

Table 3. Achievement of Student Spiritual Attitudes Based on Result of Questionnaire

Komponents	No. Statement	Curriculum 2006				Curriculum 2013				Average Components
		S1		S2		S3		S4		
		No	Agree	No	Agree	No	Agree	No	Agree	
Appreciate	1.	8	16	17	0	11	3	13	8	44,7 %
		24		17		14		21		
	2.	13	0	4	0	10	2	15	0	
		13		4		12		15		
	3.	1	3	1	4	0	1	0	3	
		4		5		1		3		
	Persentase	54,7%		34,7%		37,4%		52%		
		44,7%				44,7%				
Living up	4.	6	15	12	5	10	3	9	5	57,05 %
		21		17		13		14		
	5.	1	7	0	14	1	12	3	10	
		8		14		13		13		
	Persentase	58%		62%		54,2%		54%		
		60%				54,1%				
Practice	6.	2	19	0	12	4	15	0	15	75,3 %
		21		12		19		15		
	7.	5	3	8	4	5	6	10	10	
		8		12		11		20		
	8.	0	21	0	22	0	21	0	25	
		21		22		21		21		
	9.	25	0	23	0	24	0	23	0	
	25		23		24		23			
	Persentase	75%		69%		78,15%		79%		
		72%				78,58%				
Average Percentage Spiritual		62,6%		55,23%		56,6%		61,7%		59,02 %
		58,9%				59,15%				

Information : S1 (School 1), S2 (School 2), S3 (School 3), dan S4 (School 4)

The discussion of the achievement of the students' spiritual attitude based on the table questionnaire is as follows:

#### a. Appreciate

The percentage achievement in this component has an equity in every school, where students in schools with the 2006 Curriculum have the same average as the

schools that implement the Curriculum 2013 of 44.7%. This is because in this component students are able to mention how to appreciate all creation of God YME. This is because every school students are always stimulated to be able to show how to appreciate the natural environment created by God YME. Giving stimulus or stimulus





in instilling spiritual attitudes is the most effective way to know how students show attitudes toward the natural environment. This is in line with Sundari research, F.S (2012, pp. 176-178) that in the process of science learning, students can generate good character with optimal learning activities when the teacher gives stimulus or stimulus.

**b. Living up**

Living in the sense of believing that all creation of God YME bring benefits to other living things. The percentage achievement in this component has an average of 57.05%, whereby schools implementing the 2006 Curriculum occupy a greater percentage position than schools implementing the Curriculum 2013, ie by a margin of 5.9%. The achievement of schools with the Curriculum 2006 reached 60% while the school with the Curriculum 2013 reached 54.1%. This is because students in schools with the 2006 Curriculum in the process focused on natural resources and teachers more effective in stimulating students to be able to mention the benefits of natural resources. This is inversely proportional to schools implementing the Curriculum 2013, whereas in the curriculum learning has been facilitated by the activities of contemplating. However, because the focus of the researcher is in the material of SDA, while the activity of

reflecting the students in theme 8 where the SDA is connected with other aspects, let alone supported by the teacher who has not to lead the students to understand the utilization of natural resources, so the students have not gained the concept of optimal utilization of natural resources.

**c. Practice**

Practice in the sense of performing beneficial acts against God's creation YME. The achievement of percentage of components practicing almost all shows good results, that is, having an average of 75.3%. This is because the components of student practice feel used to be associated with cognitive knowledge or student experience in everyday life, because the components mengamalkannya more toward the experience either from the previous pengetahuan or acts that are always exemplified by teachers and parents at home. On the other hand seen in this component, where students with the Curriculum 2013 has a greater attainment of spiritual attitudes of 78.58% when compared with students applying the 2006 Curriculum that is equal to 72%. In addition, the application of integrated learning supports students' ability to practice through action, as do teachers at school 3 (S3) who convey in learning that "all creation of God YME has benefits like fish. But if the way of



his capture by using explosives then not only the fish are exposed to toxins but the environment will be polluted, therefore we must catch it in an environmentally friendly way ". Here we see the integration between the concept of religious education, civic education, science and environmental education (PLH), so that through the integration of the concept students will be easily directed to be able to apply the character of a good spiritual attitude. This is in line with the results of Zuchdi's research, D. (2010, pp. 11) that effective character education is one that uses a comprehensive approach. The learning is not only through a particular field of study, but it is integrated into various fields of study.

## **V. CONCLUSION**

Based on research that has been done on the achievement of science process skills and spiritual attitudes of grade IV elementary school students in science learning through the application of Curriculum 2006 and Curriculum 2013. So this research can be drawn conclusion as follows.

The achievement of students' science process skills at schools implementing the 2006 Curriculum and Curriculum 2013 based on test results, both within the range of moderate achievement. Schools with the Curriculum 2013 get a higher average score achievement than

school with Curriculum 2006. However, this condition is inversely related to the emergence of science process skills in the learning process is analyzed through software videograph, where the average number of occurrences of science process skills in schools with the Curriculum 2006 got more outcomes than schools implementing the Curriculum 2013, but both are on the "little aspect of emerging" criteria.

The attainment of students' spiritual attitudes towards schools that implement the 2006 Curriculum and Curriculum 2013 based on achievement data from the questionnaires, including the achievement of spiritual attitudes of students who use the Curriculum 2013 is greater than schools implementing the 2006 Curriculum. Based on these results are associated with the criteria of attaining spiritual attitudes on Chapter III, states that schools with the 2006 Curriculum as well as the Curriculum 2013 if the percentage of achievement is converted into the criteria of spiritual attitudes in life, then the school students have "begun to culture". This is in line with the learning process in which the emergence of many spiritual attitudes raised by schools that use the Curriculum 2013 compared with schools that use the Curriculum 2006. It is in accordance with the essence of Curriculum 2013 where learning activities are designed in three domains (attitude, knowledge and skills). Based on the data



associated with the criterion of occurrence in chapter III states that schools with both curriculum if the percentage of occurrences of spiritual attitudes are converted into the criterion of occurrence, then both are on the criteria of "a small part of the aspect arises".

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# RECOGNITION OF THE PEOPLE'S STORY OF MAJALENGKA TALAGA MANGGUNG AS THE FORM OF LOCAL SENIARIANCE IN LANGUAGE LEARNING AND LANGUAGES OF INDONESIA IN THE MIDDLE SCHOOL LEVEL

Lili Sadeli, M.Pd

Pendidikan Bahasa Indonesia FKIP Universitas Pasundan

[lili.sadeli@unpas.ac.id](mailto:lili.sadeli@unpas.ac.id)

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**Abstract.**Excavation value Sundanese culture that is reflected in folklore is very important to be socialized in the form of implementation of learning in schools, one of which Talaga Manggung oral story text.From the analysis of the structure, the researchers found their story elements that strengthen the grouping opinions on the folklore, that the story is included in the genre legends naming a place. From the analysis of the narrative context, researchers found the characteristics of orality these stories. With regard to the function of the story, researchers found their belief that the speakers and the local community of the story can be taken wisdom to serve as "mirrors" in life. The value of the character found in this story is a reflection of the embodiment of the behavior and lifestyle of the people of his day, such as belief in God, patience, hard work, and others. The results of the analysis of the structure and value of the characters contained in legend, the researchers take advantage became a teaching material in the form of worksheets and implemented in literary appreciation learning at the high school level by using contextual learning model.

**Keywords:** Structure, Speakers Context, Function, Value Character, and Learning

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## I. INTRODUCTION

Folklore as a folklore have a considerable role as learning for human life. As said Yanagita (Endraswara, 2009: 109), that folklore is the "doctrine for tomorrow," meaning it contains a profound message and disciplines that we know through The History of the identity of which has been tertoreh predecessors. Educational value as it gets Yanagita, that folklore has a role in education.

According Syahidin (2009: 2) not only serves as the transfer of information about science teacher to students, but rather a process in the formation of national character (character building). The primary mission of education is the inheritance of science (Transfer of Knowledge), the cultural inheritance (Transfer of Culture), and the inheritance value (Transfer of Value).

Therefore, related with the above statement that most of the



ethnic groups in Indonesia have oral traditions, as well as the Sundanese people that are in the area Talga Majalengka, which still preserve the oral traditions are born and thrive in an environment that uses local languages. The oral tradition is meant is folklore Talaga Manggung. Folklore in Majalengka Talaga Manggung is an oral tradition with the origin of the naming of the places. Folklore includes a story of character, power, dedication, personality, etc., that are related to things that basically concerns the culture in the society. Folklore Majalengka regency *Talaga Manggung*, Is the real form of the legendary figure in Majalengka, with sites legacy.

The reasons for the selection of folklore Talaga Manggung. The first in this study because folklore is able to describe the values and moral messages relating to the values prevailing in society. Second, their folklore become an interesting phenomenon to be analyzed, because in the story is not merely simply entertain, but contains elements of the structure of the story, the narrative context, the function of the story, and the character values that mark the peculiarities of folklore as oral literature.

Third, the authors are interested to implement the results of the study of folklore in the form of

structural elements of the story, the narrative context, the function of the story, and the character values contained in it as a learning material of literature at the high school level. This was done because the background writer Preliminary studies by the author in respect of literary learning through observation and interviewing techniques that learners are today much different learners ancient times. They would prefer to watch soap operas or movies on television rather than having to read the folklore. These circumstances require teachers to be more selective in choosing the materials to be used in literary appreciation learning in school.

## **II. RESULT AND DISCUSSION**

### **1. Analysis of Structure and Character Value Folklore Talaga Manggung**

*Talaga Manggung* Folklore includes several elements, namely the structure of the story (Plot, characters, settings, themes, and trustees), function stories, context narrative and character values contained in the story.

### **2. Story structure**

Plot is basically a row of events in a logical and chronological relations are interrelated and caused or experienced by actors. The existence of such events built by motives (elements driving the story). Dealing with the law of cause and



effect (causality) above, the law of causality based on the flow, often can not be fully applied to all oral literary story line, between the occurrence of the other events. In folklore, like Talaga Manggung also has a groove, only events that build the story no one is using the law of causality is sometimes unknown cause. Here

researchers describe the flow analysis based on the concept of Levi-Straus.

### 3. Inter-event Relations Folklore meaning Talaga Manggung

The relationship inter-event Talaga Manggung folklore is based sorting every event that has been done above can be seen in the following figure.

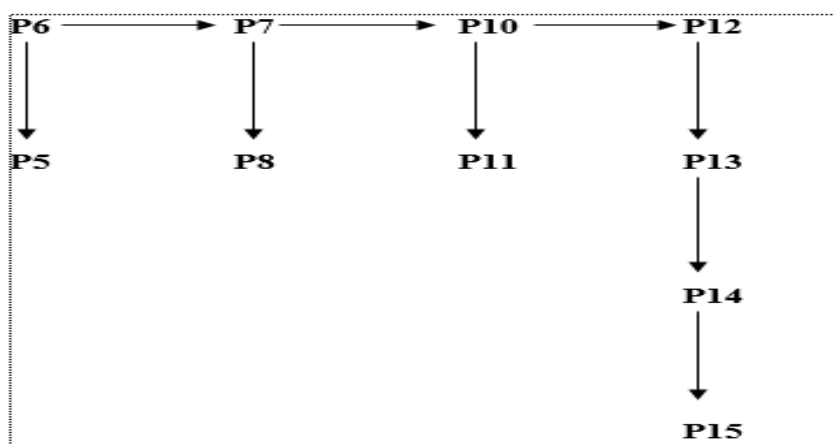


Figure 1

#### Image Relations Inter-event Folklore Talaga Manggung

From the picture above, we can know the relationship inter-event which can be explained as follows. King Darmasuci had two sons named Begawan Garasiang and King Darmasuci II (Sunan Talaga Manggung) (P6). During the leadership of King Darmasuci, United Talaga became the center of Buddhism in the level of development of Sunda and even to outside Java (P5). Then, the kingdom Talaga again made progress in developing the influence of government and religion in Tatar Sunda when led by the King

Darmasuci II (P7). With the achievement of the accomplishments achieved by the King Darmasuci II, then he received the designation Talaga Manggung, with expectations after receiving the kingdom in Talaga later became a leader of a gig is a fair and wise king in running his government (P8). Later, King Raden Panglurah Darmasuci II expects his son to become the successor to the throne Talaga. However, he was interested in the affairs of government and more than happy to explore mysticism and Buddhism.



Then, her other son the queen Mas Dewi Simbarkancana known as a beautiful princess so many kings who wanted to propose to her. Until one day, King Darmasuci II held a contest membership of the war and its participants many are falling. However, the princess finally drawn to a knight named Palembang Gunung (Sang Sakyawirya) from Sumatra Palembang ground who ventured to the State Talaga (P10). After his marriage to Queen Mas Dewi Simbarkancana, Palembang Gunung been named as a major patih and as representative of the prabu (P11). It turned out that on the other hand, Palembang Gunung began to show his true nature, which is happy feasting and hunting hobby. In addition, he planned a foul intentions to seize the throne.

Thus, he sought information about the weaknesses of the prabu. The weakness of the prabu is can be attenuated with heirloom "CIS" (weapon shaped like small spears or sekin). Palembang Gunung also tried to find information about the existence of inheritance "CIS" which was known by Centangbarang. Palembang gunung also seduce Centang barang with all the sweet promises to kill the prabu. Finally, Centangbarang managed to stab the prabu from behind with a gun "CIS" (P12). With the news of his death shocked the king prabu create in Java and Sumatra, and finally King Galuh the Goddess Niskala Majesty sent his son Kusumalaya untunk Centangbarang chase and find out who the brains behind the

conspiracy. Then, after the death of father, Ratu Mas Dewi Simbarkancana been named as successor to the throne. On the other hand, Palembang Gunung start planning a foul intentions to kill the younger brother Panglurah Raden Mas Dewi Simbarkancana queen, and killed Centangbarang.

The Ponggawa pro Palembang Gunung trying to find them to be eliminated. Then, the Ponggawa managed to find a sanctuary Raden Panglurah that no torn clothes was only suspected he was eaten by wild animals. The Centangbarang found to have been insane, and he ate his own flesh to die and become a pile of bones belulalng with heirloom "CIS" are stuck on the side (P13). Raden Kusumalaya already know who the mastermind killer Majesty Darmasuci II before Centangbarang died. He immediately informed the news to the queen Mas Dewi Simbarkancana. The Queen was shocked to hear the news and finally planned an intention to kill her own husband when asleep. The Queen had killed her husband to death. Then, Raden dikabarakan Panglurah who had died, it turned out he was still alive. Panglurah Raden Mas met her sister Queen Goddess namely Simbarkancana. The brother told me that my father and mother had died. It makes sad Raden Panglurah. Finally Raden Panglurah escorted the entourage to see his parents in Sangiang. The prince told the group for prayers (Ka mujasmedi Hiyang WiDi).

Then, suddenly Raden Panglurah disappeared and a voice



echoed from inside it that all courtiers had to return to the country and said that the king's son has been granted his prayer to meet the father of the mother in the supernatural, and courtiers were ordered to take care and preserve Situ Sangiang (P14). Upon the occurrence of the killing Majesty Darmasuci II, known as Sunan Talaga Manggung, the area was called Talaga Manggung (P15). suddenly Raden Panglurah disappeared and a voice echoed from inside it that all courtiers had to return to the country and said that the king's son has been granted his prayer to meet the father of the mother in the supernatural, and courtiers were ordered to take care and preserve Situ Sangiang (P14). Upon the occurrence of the killing Majesty Darmasuci II, known as Sunan Talaga Manggung, the area was called Talaga Manggung (P15). suddenly Raden Panglurah disappeared and a voice echoed from inside it that all courtiers had to return to the country and said that the king's son has been granted his prayer to meet the father of the mother in the supernatural, and courtiers were ordered to take care and preserve Situ Sangiang (P14). Upon the occurrence of the killing Majesty Darmasuci II, known as Sunan Talaga Manggung, the area was called Talaga Manggung (P15).

The many mytheme formed of folklore Talaga Manggung at the top there is meaning each mytheme nya relations, other relations between P6 and P5 showing the relationship between the ability of a king with the

progress made in running the government. Then, as a king would expect the next generation to the throne competent in maintaining the continuity of government. This is seen in P6 and P7 showing the relationship of a king with generation heir to successfully defend the glory of the kingdom Talaga. The success in maintaining the glory of the kingdom Talaga, King Darmasuci II gets the title Talaga Manggung, with expectations after receiving the kingdom in Talaga later became a leader of a gig that is a fair and wise king. This shows the relationship between P7 to P8. Relations P7 and P10 show the relationship of King Darmasuci II were expecting a son later replaced him as king. However, the throne was given to the king's daughter for his son is not interested in government affairs.

Then, the relationship P10 and P11 show that the king's daughter, the Queen Goddess Simbarkencana Mas, who has been named as a substitute for the king, will be married to a knight who came from Palembang Sumatra. The knight named Palembang Gunung. After they married, saw the original nature Palembang Gunung negative. One of them, want to control the throne so he planned the murder of his own law. This shows the relationship P10 and P12. As for the relations P12 and P13 is the success of the son-in-law lives alone eliminate. In fact, he is also planning to eliminate younger brother-in-law for allegedly would preclude him for control of the kingdom. With the events of the



death of King Darmasuci II pathetic grief has made her daughter, Queen Mas Dewi Simbarkencana, having been one of selecting a husband to cause my father and mother died. In addition, the Queen Mas sadness increased when the younger brother, Raden Panglurah, prefers to Widi Hiyang ka mujasmedi so that he can meet his parents in faerie. This shows the relationship P13 and P14. And lastly, the relationship P14 and P 15 show the relationship with the occurrence of the killing of Father Ratu Mas Dewi Simbarkencana,

#### **4. Folklore narrative context Talaga Manggung**

As noted in Chapter II, that the context of the narrative is talk of a special communication events characterized by the interaction between supporting elements specifically anyway. This means that there is a relationship between the speaker's story, story by chance dituturkannya, stories with dituturkannya purpose, and its relationship with the environment and community supporters. In the presence of the above understanding, the researchers explain the context of the narrative by the speaker, recalled occasion, recalled the purpose of, and relationship with the environment and community supporters.

##### **a. Speakers Stories**

On the slopes of Mount Ciremay south, in the village Sangiang Talaga District of Majalengka, standing one country called the Kingdom Talaga. That speaker tells the early story Talaga Manggung. Starting from the

geographical area then he told how the origin of the kingdom Talaga stand, descendants who holds the throne of the first king to the next. Speakers recalled that the kingdom Talaga is a country that leads some areas.

##### **b. Storytelling Opportunity**

Storytelling opportunities made when the storyteller has the spare time to tell it. This is done so that the storytelling process underway with detail as it relates to the research analysis. There is no compulsion to provide things that are not known by the speaker because it will make the trail of the story is different with what is known. It is important to remember a story should be up and are spoken by what he received from the previous speaker. Completeness stories that are not designed, accompanied by evidence of remaining proved that the story is believable source.

##### **c. Purpose Storytelling**

The goal of storytelling is very diverse. When connected with analyzing scientific, of course, the story is intended to analyze more deeply about everything related to Talaga Manggung. Even when the purpose of the story to give the knowledge to the next generation, there are things that could be a message from either history to be used in future generations as evidence of respect customs and culture of a region. Talaga Manggungfull policy message, virtue, and the impact of leadership precedent for the purpose of children





in the region to make it more character. Good and bad events into a nozzle which can burn the spirit of leadership every future generation.

d. Stories Relationship with the Environment

The close link between the story with the environment around them. Environment that is rich in historical nuances provide opportunities for their children and grandchildren to better understand the importance of respecting the predecessor. As the founder of a civilization milestone in the neighborhood region, stories of history will be very useful for future generations. Native speakers can provide comprehensive knowledge of the history of Talaga Manggung and include messages about the moral leader or also the people who were in a story, so that present a serene area.

**5. Folklore function Talaga Manggung**

In analyzing the function, researchers based on interviews and the views expressed by Hutomo (1991: 69-74), which divides into seven functions, among others, 1) as a projection system; 2) to pengesahaan culture; 3) as a means of coercion into effect of social norms and social control; 4) as a means of education of children; 5) gives a justified way society so that he can blame others; 6) as a means to protest against injustice in society; 7) as a means of entertainment.

As based on theories put forward by Hutomo, based on the analysis, researchers incorporate this story to a function in three forms,

namely as a projection system, as a means of education, and as a means of entertainment.

a. As a projection system

Story Talaga Manggung into a projection system is mainly attributed to the presence of the characters. Projections in question is a reflection of leadership as the key to the passage of a peaceful and prosperous people. It can be seen in the paragraphs below.

Paragraph 5th

*Dina hiji masa pamarentahan Prabu Darmasuci II (Talaga Manggung 1388-1420 M) karajaan Budha Talaga eta maju jeung mekarna pangaruh pamarentahan katut agama oge di tatar Sunda. Sebatan Talaga oge nyeta pamere jang Prabu Darmasuci II sareng harepana saatos dijadikeun raja di talaga bakal jadi hiji pamingpin nu manggung nyeta raja nu adil jeung bijaksana ngajalankeun pamarentahana.*

*Harepana eta jadi kanyataan dibuktoskeun saengges Prabu Darmasuci II atawa ni dikenal Sunan Talaga Manggung dipercaya jadi raja ka II di Talaga Manggung.*



In the reign of King Darmasuci II (Talaga Manggung ± 1388-1420 AD) Talaga Buddhist kingdom is experiencing very rapid progress in developing the influence of government and religion of Sunda. Mentions Talaga Manggungis a giving a name to King Darmasuci II with expectations after receiving the kingdom in Talaga later became a leader of a gig is a fair and wise king in running his government. This hope proved to be true after King Darmasuci II or known as Sunan Talaga Manggung

Of these paragraphs can tersimak that the journey of a region and its peoples can be fair and prosperous if the policy of the leader has been there in living power. It is important to realize, and if it is associated with the current state is still valid, that is, when everything is done wisely will produce something wholesome.

b. As a means of education of children

Educating a child with a rare storytelling is something that can be found in this contemporary era. Educational tool that emphasizes technology makes forget how history can be used as an educational tool. Talaga story really could use as a gig to educate a child because it contains life lessons that can be applied in real life. Talaga Manggungthat emphasizes one's attitude in the lead

is evidence of the importance of a person's character in life. Below can be seen the role of a child in the leadership in the future.

c. Like entertainment

Sometimes history is regarded as something too complicated to learn. How wrong delivery is one of the ways we can bring entertainment of history. Stories filled with meaning is an educational entertainment for everyone. Likewise with Talaga Manggung giving education as entertainment requirements can find out more on how an area is present and we are in it. Or even how culture develops by simply listening to the story presented.

## **6. Character Values Contained in Folklore Talaga Manggung**

The character value will be related to humans and the problems that it faces. According Nurgiyantoro (2002: 323) is generally a matter of life and human life can be divided into the issue, (1) the relationship of man with himself; (2) The human relationship with another human being in the social sphere, including in relation to the natural environment; (3) the human relationship with God.

The character values include the values associated with social problems (horizontal) and the problems associated with the god



(vertical). While the values of culture and character education according to the Ministry of National Education (2010: 9-10) includes: (1) religious, (2) honest, (3) tolerance, (4) discipline, (5) hard work, (6) creative, (7) independent, (8) democratic, (9) curiosity, (10) the national spirit, (11) love of the

homeland, (12) recognize excellence, (13) friends / communicative, (14) pacifist, (15) likes to read, (16) care for the environment, (17) social care, (18) the responsibility. The analysis of the value of the character at Folklore *Nyi Hair Love* are as follows.

Tabel 1  
 Character Value Analysis on Folklore Talagamanggung

No.	Character Values	excerpt Stories	Discussion
(1)	(2)	(3)	(4)
1	religious	<p><i>Paragraf ke-6</i>  <i>Raden Panglurah sebenarnya diharapkan kelak menjadi penerus tahta Kerajaan Talaga, akan tetapi dia tidak tertarik dengan urusan pemerintahan dan lebih senang mengikuti jejak kakeknya Ratu Ponggang Sang Romahiyang (Sang Sodayasa) atau Bhatara Gunung Bitung untuk mendalami ilmu kebatinan dan agama Budha.</i></p> <p><i>Paragraf ke-21</i>  <i>Setelah menerima laporan dari Kelejon Bagawan Garasiang tertekun prihatin dan tetap menyerahkan urusan negara kepada Sang Ratu, sebab dia</i></p>	<p>Religious value contained in that paragraph is as any we live in the community, we will always need the Almighty to achieve a more inner desire. Worldly is important, but the most important is when the science of religion is the basis of our quest in the world.</p>



No.	Character Values	excerpt Stories	Discussion
		<i>tidak membutuhkan keduniawiaan dan lebih betah memilih mengurus padepokan dan menuntut ilmu ka para catrik (pendeta).</i>	
2	Honest	<i>Paragraf ke-26 Ratu putri Dewi Simbarkencana mendengar cerita Kidangpangarih, merasa turut sedih yang mendalam meratapi nasibnya yang tidak mujur karena sabab musabab ia kawin dengan orang Palembang yang telah berkhianat sama mertua.</i>	Honesty seems will be important in real life when we live with one another. Hearts never lie requires one to continue to tell the truth in life. Falsehood as betrayal will destroy everything that has been done based on the value of honesty.
3	Tolerance	<i>Paragraf ke-8 Dalam perjalanannya, dia berbakti sebagai abdi negara di Kerajaan Talaga dan Sang Narapati terpincut akan kepiawaian Palembanggunung sehingga dinikahkan dengan Sang Ratu Mas Dewi Simbarkencana dan ia pun diangkat sebagai patih utama dan bahkan sebagai wakil Sang Prabu yang sebenarnya hanya layak diberikan kepada Raden Panglurah.</i>	King Darmasuci tolerance values indicated in his leadership. When a knight from afar to be a winner in the contest, he did not see anybody winners, from any country. To be sure the values of tolerance, respect for the truth of others run well for the good of all mankind.
4	Discipline	<i>Paragraf ke-22</i>	Discipline of space and



No.	Character Values	excerpt Stories	Discussion
		<p><i>Singkat cerita Raden Panglurah, yang beranjak dari pertapaan, mendapat petunjuk dari Hiyang Widi, bahwa dirinya sudah selesai semedinya yakni tujuh tahun, tujuh bulan, tujuh puluh hari dan masih berada dalam kawasan Gunung Bitung.</i></p>	<p>time, both internally and externally is key to live a life of discipline. Hermitage appropriate time and space that silence is evidence of a Raden Panglurah discipline to appreciate life as a human.</p>
5	Hard work	<p><i>Paragraf ke-27 Pada satu ketika, di perbatasan Talaga dan Kuningan ada kabar seorang pemuda yang tengah belajar di padepokan Kutamanggu Kuningan, dia pandai menyembuhkan segala penyakit. Sang Ratu mengutus Bibi Kalejon untuk menemui pemuda yang disebut Ajar Kutamanggu untuk diminta ridonya agar mau membantu menyembuhkan Sang Ratu yang tengah sakit parah.</i></p>	<p>Hard work is the character values that should belong to everyone. Hard work in the broad meaning which can be applied in real life. Hard work when the Queen experiencing pain and find someone who can treat up to a distant country to subsequently produce healthy evidence is proof of how hard work will produce something even unexpectedly.</p>
6	Creative	<p><i>Paragraf ke-29 Padepokan tempat istirahat Sang Ratu pun terwujud yang lengkap dengan segala fasilitas keseniannya.</i></p>	<p>Creative value contained in the character of the Queen, which provides art facilities around the community. It gives a new color in the life of society, creative leader is a leader who gives a new</p>



No.	Character Values	excerpt Stories	Discussion
			color to its people, and the Queen has become a good example for their people.
7	Mandiri	<p><i>Paragraf ke-5</i>  <i>Sebutan Talaga Manggung merupakan sebuah pemberian nama kepada Prabu Darmasuci II dengan harapan setelah dinobatkan menjadi raja di Talaga kelak menjadi seorang pemimpin yang manggung yaitu seorang raja yang adil dan bijaksana dalam menjalankan pemerintahannya. Harapan ini menjadi kenyataan terbukti setelah Prabu Darmasuci II atau yang dikenal Sunan Talaga Manggung yang dipercaya menjadi raja ke II di Talaga Manggung. Kerajaan Talaga Manggung mengalami kemajuan dan perkembangan yang sangat pesat.</i></p>	Self-reliance can be present on the behavior of someone who lives in a community. King Darmasuci II has shown independence as a leader who can bring people on benefit.
8	Democratic	<p><i>Paragraf ke-7</i>  <i>Karena begitu banyaknya orang yang ingin melamarnya sehingga Sunan Talaga Manggung</i></p>	Democratic values contained in Talaga Manggung figure indicated by giving the opportunity to everyone to taste something that is desired by many





No.	Character Values	excerpt Stories	Discussion
		<i>mengadakan sayembara keahlian perang dan pesertanya banyak yang berguguran, namun akhirnya tertuju kepada seorang kesatria yang bernama Palembanggunung atau (Sang Sakyawirya) asal tanah Palembang Sumatera yang berkelana ke daerah gunung.</i>	people. Democratic is a street where all the people can become part of the country and was conducted by Talaga Manggung.
9	Curiosity	<i>Paragraf ke-9 Rencana terus bergulir dengan membidik kelemahan sang Narapati. Dari informasi yang mereka tampung, maka tertuju pada pelemahan Sang Raja, yakni dengan benda pusaka kerajaan, "CIS" (CIS adalah senjata bentuknya seperti tombak kecil atau sekin). Sementara satu-satunya orang yang mengetahui pusaka CIS adalah seorang juru kunci dari kerajaan Galuh bernama Centangbarang.</i>	Curiosity value means the value that we can take even of something negative though. Of behavior Palembang Gunung who want to know the weaknesses of people, we can understand how the curiosity is the key when it wishes to be achieved from the various paths.
10	Spirit of nationality	<i>Paragraf ke-21 Sang Ratu pun ngutus orang kepercayaannya yakni Kelejon untuk</i>	The value of the national spirit of the figures contained in the Queen ever serve in any way, by asking



No.	Character Values	excerpt Stories	Discussion
		<i>mengundang Bagawan Garasiang (saudara sekandung Talaga Manggung) untuk datang ke kapuntren Walangsuji untuk membantu mengurus negara.</i>	the help of the people around who care about the country.
11	Cinta Tanah Air	<i>Paragraf ke-12 Dalam suasana duka, sepeninggalnya ayahanda Sang Ratu Mas Dewi Simbarkancana dinobatkan sebagai penerus tahta kerajaan. Pada pemerintahan Sang Ratu mengalami pemindahan pusat roda pemerintahan dari Sangiang ke Walangsuji, yaitu Desa Kagok Kecamatan Banjaran. Saat itu, hati Ratu Mas Dewi Simbarkancana labil, terluka dan sedih, sehingga sakit-sakitan. Selain ayah bundanya telah tiada sementara adiknya Raden Panglurah jauh dari dirinya yang kini berada di pertapaan di Gunung Bitung.</i>	Values shown homeland love with brilliant leadership of the Queen, blood and spirit no longer be a matter for the sake of maintaining the country.
12	Rewarding Achievement	<i>Paragraf ke-8 Dalam perjalanannya, dia berbakti sebagai abdi negara di Kerajaan Talaga dan</i>	How does one recognize excellence in the life around it is shown in this paragraph.



No.	Character Values	excerpt Stories	Discussion
		<p><i>Sang Narapati terpicut akan kepiawaian Palembanggunung sehingga dinikahkan dengan Sang Ratu Mas Dewi Simbarkencana dan ia pun diangkat sebagai patih utama dan bahkan sebagai wakil Sang Prabu yang sebenarnya hanya layak diberikan kepada Raden Panglurah.</i></p>	
13	friends / Communicative	<p><i>Paragraf ke-9 Ketamakan Palembanggunung diwujudkan dengan memperdaya dan membujuk seorang patih (manteri negara) bernama Ngabei Citrasinga dan membius dengan segala janji serta harapan posisi jabatan di kerajaan Talaga. Dia pun terpicut untuk sama-sama merencanakan kudeta.</i></p>	<p>Although Palembang Gunung doing negative things in this paragraph, but the substance it contains very positive. Ie communication and approach is a way for someone to get something to be desired.</p>
14	Love peace	<p><i>Paragraf ke-20 Sejak itu, tanduk pemerintahan Talaga Manggung dipegang sementara oleh Demang Nitijaya yang ditunjuk langsung Sang Ratu dan negara subur makmur lohjenawi aman dan</i></p>	<p>The value of peace in the story can be listened Talaga Manggungin demat leadership attitude Nitijaya who risked his life to the establishment of prosperity, of peace for the whole country.</p>



No.	Character Values	excerpt Stories	Discussion
		<i>sentosa.</i>	
15	Like to read		In folklore Talaga Manggung there is no value character likes to read in text form. Actually, in the form of context already seen, that the leaders read the state of the people.
16	Environmental care	<i>Paragraf ke-20 Sejak itu, tanduk pemerintahan Talaga Manggung dipegang sementara oleh Demang Nitijaya yang ditunjuk langsung Sang Ratu dan negara subur makmur lohjenawi aman dan sentosa.</i>	Care for the environment is concerned at what is around him. Talaga Manggung with the leaders of demat Nitijaya provide care for the environment.
17	Social care	<i>Paragraf ke-30 Singkat cerita, akhirnya Ajar Kutamunggu dan Sang Ratu dipertemukan oleh Bibi Kalejon dalam satu acara kesenian rakyat.</i>	Social concern is how someone could be mingling with the people. Folk art is a form of social care of the queen who could bring many blessings in the next life.
18	Responsible	<i>Paragraf ke-30 Setelah resmi suami istri, Ajar Kutamunggu dinobatkan jadi patih negara, dan negara tambah maju, aman, tentram, subur dan makmur.</i>	The sense of responsibility that is owned by Ajar Kutamunggu is evidence of their concern for the people. State leadership as vice regent showed how much he is someone who is responsible for himself and his environment.

**7. The introduction of Folklore Talaga Manggung in learning Indonesian language and literature at the high school level**

Talaga Manggung folklore can be packaged as a teaching material in subjects Indonesian using contextual learning model. This model can help teachers link between what is taught



with real-world situations students and encourage students to make connections between the knowledge possessed by the application in their lives as members of the family in society (Nurhadi, 2000, at the Rusman 2011: 189). In addition, students are important factors to consider in this model. That is, students are given the applicative learning experience by providing the opportunity to perform, try, and experience for themselves (learning to do). In contextual learning, the teacher does not transform knowledge to students, but rather to facilitate the students to look for the ability to be able to live (life skills) on what he learned. Learning is not just in terms of products, but the most important is the process. Through this process, the values of local wisdom embodied in folklore Talaga Manggung will awaken. Thus, students not only learn about Indonesian language and literature, but also recognize, learn, and enjoy folklore in order to increase the wealth of knowledge the students themselves.

Skills that will be focused in learning Indonesian language and literature at Secondary school level reading skills are the students' understanding of the text content of folklore.

In its application, the peculiarities of the learning model contextual marked seven main components, namely (1) Constructivism, (2) Inquiry, (3) Questioning, (4) Learning

Community, (5) Modeling, (6) Reflection and (7) Authentic Assessment, As for the development of each component of contextual learning model applied in learning Indonesian language and literature-oriented local knowledge through the introduction of folklore Talaga Manggung as follows.

- a. Students are divided into several groups. It is intended that the students are able to develop their thoughts in doing a more meaningful learning activities.
- b. Each group reading folklore attention to modeling done by the teacher. It is intended that the students were able to find the intrinsic elements in the form of plots, characters, setting, theme, and the mandate contained in the story.
- c. Each group discussed the matters relating to folklore Talaga Manggung.
- d. Representatives of the group reported the results of the discussion.
- e. Each group performs modeling with the practice of storytelling folklore.
- f. Students conduct a class discussion led by the teacher to report the result of his experience in listening and practicing storytelling folklore Talaga Manggung.
- g. Students reflect on what he has done in the learning process.



## II. CONCLUSION

The introduction of folklore Talaga Manggung Sundanese community through learning Indonesian language and literature as one of the efforts to preserve the oral traditions of certain cultures. In folklore Talaga Manggung contained local moral values of a society, such as in folklore there is a value that describes leadership as a leader must have a prudent attitude in acting and decided

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something. In addition, as a subordinate must have a submissive attitude, respect, and a high sense of loyalty to the leader. The development of the learning model to be applied in the Indonesian language and literature learning space oriented local knowledge is through contextual learning model, which aims to study language and literature Indonesia more creative.





## THE DEVELOPMENT OF INQUIRY BASED-INTEGRATED FIELDTRIP PROGRAM TO ENHANCE SCIENTIFIC ATTITUDE AMONG STUDENTS OF BIOLOGY EDUCATION

Yusuf Ibrahim<sup>1</sup>, Hertien Koosbandiah Surtikanti<sup>2</sup>, Riandi<sup>3</sup>

<sup>1</sup>Universitas Pasundan <sup>2,3</sup>Universitas Pendidikan Indonesia

<sup>1</sup>yusuf.ibrahim@unpas.ac.id, <sup>2</sup>hertien\_surtikanti@upi.edu, <sup>3</sup>rian@upi.edu

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**Abstract.** This study aims to find a form of integrated fieldtrip program which is effective to develop problem solving ability, scientific attitude and concept mastery among students in Ecology, Invertebrate Zoology, Cryptogamae Botany and Phanerogamae Botany courses. The subjects of this study are some students of Biology Education study program semester VII in a LPTK in Bandung City. This developed integrated fieldtrip integrate some courses among others are: Ecology, Invertebrate Zoology, Cryptogamae Botany, and Phanerogamae Botany courses. In this integrated fieldtrip program, students are equipped with inquiry learning experience. To facilitate it, researcher develop Student Activity Sheet which can guide and direct students to do inquiry in fieldtrip activity. The effectiveness of inquiry based-integrated fieldtrip is evaluated by using written test, performance observation sheet, scientific attitude assessment peer, student working outcome, and video recording of students activity when doing integrated fieldtrip activity. The study result show that: a) the fieldtrip done so far had not been effective and had not organized well, so the aim of fieldtrip had not achieved completely; b) inquiry-based integrated fieldtrip can enhance students' scientific attitude which is seen from indicator score mean of 80.22 which is in high category; Based on the study result above, inquiry based-integrated fieldtrip can enhance problem solving ability, scientific attitude, and concept mastery, and it is proved that it can enhance the quality of lectures effectively and efficiently.

**Keywords:** Inquiry based-integrated fieldtrip, problem solving ability, scientific attitude

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### A. INTRODUCTION

Fieldtrip is basic aspect in scientific learning. Scientific learning demand students to master various forms of science process skill. The study result prove the importance of fieldtrip in providing

authentic experience to students in NATURAL SCIENCE learning, direct contact with real object, and can stimulate curiosity. Muse, Chiarelott & Davidman (1982) state that:



“The positive benefits derived from field trip were hands-on, real world experiences; quality of education, positive attitudes to science and motivation towards the subject; improvement of the socialization between students, which would impinge on the classroom, and development of rapport between teachers and students; enabling teachers to utilize other learning strategies such as cooperative learning.”

From this statement, a conclusion can be drawn that the benefit of fieldtrip is to give real experience to students, develop positive attitude and high motivation toward science, so it will effected on class in the form of rapport between student and lecturer, between students and students because it can be developed into cooperative learning, and it can enhance learning quality.

Inviting students to do learning inside and outside class is considered as a conditioning process toward learning experience which is broader and better (Dickie & Jay, 2010; Jakubowski, 2003; Lee, McGuiggan & Holland, 2010). With fieldtrip , students will use various methods which are indirectly will prove the theory they receive so far in class, so it will invoke the relation between theory and real world to become better (Donovan, Manzin, Savage & Lee, 2010; Govekar & Rishi, 2007). By matching theory and real world,

there will be learning experience which demand students to learn actively in developing and deepening their knowledge through problem solving based on critical and concrete experience, and do reflection on learning experience they receive, to be discussed with their friends, so their inquiry ability become more enhanced (Kohl & Kolb, 2006; Lee et al, 2010).

The inquiry skill and problem solving skill is basic ability to be possessed by students as basic to teach science concepts which is suitable with the essence of science itself. Problem solving ability is integral part of science teaching and learning process, both in school and university (Tao, 2001). The importance of problem solving skill for students had been consistently expressed by Bunce, Gabel and Samuel (1991); Bowen and Gardner in Lee & Fensham (1996). Stollberg in his study toward science educators reported that science education should produce good problem solvers (Russel & Chiappetaa, 1981). The current view from inquiry approach is emerged from National Science Education Standards (NSES) (1996). One area in science teaching standard and professional development standard is the development of inquiry based-learning program and science content learning through inquiry. NSES set science curriculum



which involve students actively in science by using inquiry approach. This approach had changed the focus of science education from concept and fact memorization in subject to become inquiry based-learning, further students try to answer to understand and solve a problem (NRC, 1996; NRC, 1999).

Inquiry skill is key element and it is the initial thing which should be possessed to learn science. It is mentioned in research based-curriculum in many countries (French, Conezio & Boynton, 2000). One of development research conducted in California (German, Brennenman, Macdonald, & Moises, 2009) described that students acquire scientific experience by continuing inquiry and observation, asking question, planning follow-up inquiry, and finally they obtaining finding to collect and interpret information, proposing explanation, and communicating with public (page 53).

This skill build cognitive and social skill which is basic for students in formal education to enhance problem solving ability which is main aim. As for problem solving ability have some components in it, among others are: has problem solving aim which is clear, capable to face obstacles to achieve the aim, use some strategies to solve the problem, apply relevant knowledge and needed social resources, and evaluate its

result (DeLoache, Miller and Pierroutsakos, 1998).

The main factor which make learning process become success is that students learn through inquiry process so they can learn with better spirit and comfortable condition (Zemelman, 1998). Students will learn from what they had done and get experience from that thing (Schelecty, 1997). Here, the main role of teachers among others are as facilitator and to broaden students' viewpoint and make the material is understood easily because it can be seen and felt contextually, so it can support students to have scientific attitude completely (Parnell, 1995).

Scientific attitude is an attitude which is expected to be grown in students after they learn Natural Science. Kaur (2013) stated that scientific science is the most important goal in science learning. Scientific attitude helps an individual to develop vision for better life, to make life meaningful and teaches him to do all works systematically. Scientific attitude is like a foundation for all the fields of life so this must be attended (Radhanpu 2013). Opong (1981) stated that scientific attitude is needed in conducting scientific process. As one aspect contained in the essence of Natural Science, scientific attitude has most important position in Natural Science learning. Scientific attitude become one



competition which is absolutely possessed by students when they learn and conduct Natural Science process. Scientific attitude should be possessed by students and it can be curiosity, responsible, honest, open, objective, hard work, careful, discipline, self confident, positive self concept (has positive thinking toward the failure experienced), and interpret the natural phenomena based on scientific principles. This scientific attitude is important to be possessed by students who is learning science, because scientific attitude quality of a student will influence the quality of discovery process, or the steps of discovery done by students.

Based on preliminary study which had been conducted by researcher in some LPTK which have biology education study program, it is found some obstacles among others are: 1) fieldtrip activity still done separately so students' knowledge about the object of biology study is still partial. It is effected on students' learning outcome which is categorized low. The result of field observation in LPTK where the researcher conducted the study show that fieldtrip activity still done separately, the courses organize fieldtrip individually even though they have similar site or location of fieldtrip. From the questionnaire result distributed to students, it is obtained the information that the

fieldtrip which is done so far had not been effective both from learning outcome gained and from the cost expended. From the result of interview with lecturers of the course which organize fieldtrip, it is obtained the information fieldtrip activity is done by doing study and sampling the object of study learned, discuss and make practicum activity report. Problem solving ability, scientific attitude and concept mastery of students are still categorized low. The researcher know it from the result of interview with lecturer of the course which organize fieldtrip and from the result of preliminary study by administering problem solving ability test and observation toward students' scientific attitude by using observation sheet of scientific attitude and peers assessment toward scientific attitude.

Integrated fieldtrip which is undertaken in the beach will give opportunity to students to explore biotic factor and non biotic factor of the beach completely and authentically. Patrick (2010) express that: "Fieldtrip is an outdoor or field work or learning exercise undertaken by teachers and students in certain aspects of subjects particularly biology as to give students the opportunity to acquire knowledge."

Fieldtrip can give many opportunities to students to acquire



much knowledge. Hudak (2003) who state that fieldtrip can develop relation between theory and concept students acquire in class with experience students obtain through fieldtrip. Besides, fieldtrip also can enhance and develop students' knowledge (Hudak, 2003; Kisiel, 2006; Mawdsley, 1999; Michie, 1998; Nadelson & Jordan, 2012; Scarce, 1997; Scribner-MacLean & Kennedy, 2007). Fieldtrip can also harness the ability to do observation and perception by using various senses possessed by students (Nabors et al, 2009). Behrendt and Franklin, (2014) mention that fieldtrip can develop students' communication skill. Hofstein and Orion (1991) also mention that fieldtrip can enhance students' problem solving skill.

Fieldtrip generally undertaken separately regarding biotic factor such as flora and fauna as well as regarding non biotic factor, such as temperature, humidity. pH and sanity so it cannot explore environment completely it is difficult when facing complex problems. The element of integration in fieldtrip can enhance the meaningfulness of learning process, because in essence the sciences in this nature are interdependent. Integrated fieldtrip can enhance students' interest and motivation in learning, because fieldtrip can provide experience and opportunity to students to do verification/proving

and doing illustration toward information students learn in class, introduce concept and new experience (Prokop, Tuncer and Kvasnicak, 2007; Rennie & McClafferty, 1995). Meanwhile, Anderson, Kisiel & Storkskieck (2006) state that integrated fieldtrip can create learning experience which is very meaningful, because it give students opportunity to acquire hands on experience and opportunity to do observation with various senses integrally and not separately.

Learning done outside class in general, for example visiting museum, science laboratory, zoo, or many another places undoubtedly give emotional effect regarding the level of care and motivation to be involved in the topic learned, in addition it also influence students to explore furthermore the information faced with more specific knowledge. (Priemer & Pawek, 2014; Schwan, Grajal & Lewalter, 2014). The earlier study even had proved that fieldtrip has potential to increase students' interest in science (Singh, 2015; science center; Dairianathan & Subramaniam, 2011; Jarvis & Pell, 2005; university: Gibson & Chase, 2002; Seybold, Braunbeck & Randler, 2014). metacognitive involvement (amusing park/physics: Nielsen. Nashon & Anderson, 2009) and reasoning (Wormald & Pegram. 2015).





Fieldtrip give emotional benefit among others are to increase happiness and joy (Rennie & McClafferty, 1995; Pluth, Boettcher, Nazin, Greenaway & Hartle, 2015), decrease angriness, anxiety, and boredom (Outdoor; Randler, Ilg & Kern 2015); and the enhancement of care attitude (reptile: Wunschmann, Wust-Ackermann, Randler, Vollmer & Itzek-Greulich, 2016). So far science learning did not give enough opportunity for students to do direct contact or “hands-on” with science (Abraham & Reiss, 2012; Blachard et al, 2010; Hart, Mulhall, Berry, Loughran & Gunstone, 2000; Hofstein, Navon, Kipnis & Mamlok-Naaman, 2005). even though “hands-on” has many benefits and will increase students’ interest (Swaraf, Ortony & Revelle, 2012). Many researches show that fieldtrip activity still limited to visiting certain objects and only as an enrichment, so the goal of learning which want to be achieved through that activity will become limited, whereas there are many things students obtain from fieldtrip if that activity is managed effectively. There are only few studies on how to undertake integrated fieldtrip in the beach. Besides, this fieldtrip still limited ton verify theory without accompanied by activity in searching relation and integration between one living creature with another living creature and living creature and non

living factor existed in their natural habitat.

Based on the problem mentioned in earlier paragraph, then the researcher feel that there is need of development and improvement toward the fieldtrip which has done so far. To improve it, then it needs to develop the inquiry based-integrated fieldtrip which can develop scientific attitude skill among students of biology education.

## **B. RESEARCH METHOD**

This study aims to obtain product in the form of inquiry based-integrated fieldtrip which can enhance scientific attitude in students of biology education. Fieldtrip program is build on the need in field and curriculum analysis in LPTK where the study was conducted. To get the design of fieldtrip program, then the design of fieldtrip program is based on some activities of earlier study. In initial stage, it was done literature study, survey result analysis of problem condition faced by students of biology study program and the demand of competence on students of biology study program. Then for the sake of this study, research and development (R&D) method is used (Brog & Gall, 1998).

This research and development method has four main steps comprising; preliminary study, program draft arrangement, program





development, and program validation. The explanation of four steps is as follow: 1) preliminary study comprising; literature study and field survey; 2) program draft arrangement; formulate the goal of program, set program objective and program components based on the steps of preliminary study; 3) program pilot and development; consider program draft, program pilot, and program draft revision until hypothesis program is obtained; and 4) program validation; program testing among other is in the form of program implementation.

The study is conducted in Department of Biology Education, FKIP, Pasundan University Bandung and for implementation of integrated fieldtrip is located in Karaparak Pangandaran Beach, Ciamis, West Java. The subjects of study are students of Biology Education study

program who had finished and who were in Semester VII and had enrolled in Cryptogamae Botany, Phanerogamae Botany, Invertebrate Zoology, and Ecology in Department of Biology Education, FKIP, Pasundan University Bandung. Stage 1 pilot is conducted toward students of even semester, academic year of 2013/2014. As for stage 2 pilot is conducted toward students of odd semester, academic year of 2014/2015 and implementation is conducted in even semester, academic year of 2015/2016.

### C. DISCUSSION

Scientific attitude ability is measured through observation sheet of scientific attitude during students undertake integrated fieldtrip. The observation sheet result of students' scientific attitude can be seen in the graphic below:

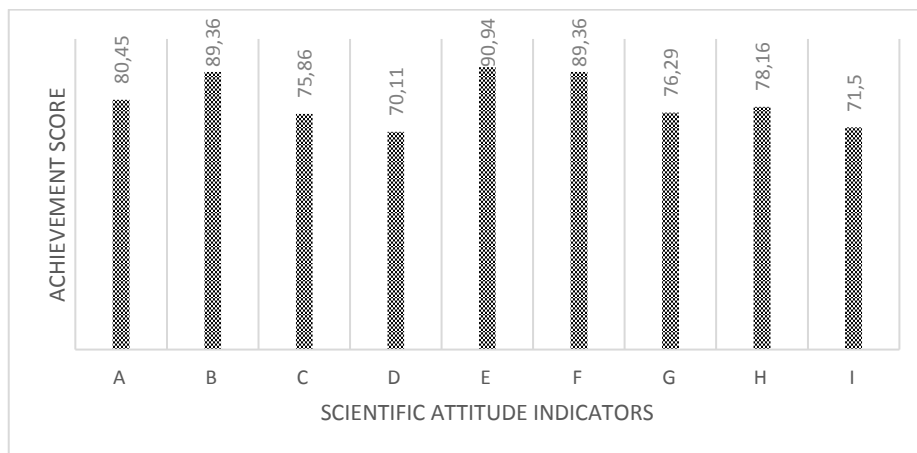


Figure 1. Graphic of Students' Scientific Attitude in Each Indicator



Annotation: A) Curiosity, B) Critical and creative thinking, C) Perseverance attitude, D) Appreciate the proof, E) Honest, F) Objective, G) Willing to change opinion and H) Open minded and capable to cooperate

Curiosity has indicator mean score of 80.45. That score is in high category and it is in accord with result study of Archibald that fieldtrip can increase students' curiosity. (Archibald, 2008; Battiste, 2013; Donald, 2014) and it is supported by result study of Hilmi Demirkaya (2010) who state similar thing, and it is supported also by result study of Farmer et al who state that field research can stimulate students' curiosity, so students are actively to pose question, discuss observation, consider past experience they encounter, or only contemplate the topic which is being learned (Farmer, Knapp & Benton, 2007b; NRC, 2009).

Critical and creative thinking has indicator mean score of 89.36. That score is in high category in which learning with fieldtrip develop toward learning process which is focused on critical thinking, so it will harness students' ability to analyze information received to make right decision. Therefore, developing learning process in order that students have critical thinking ability is very important. Student's new knowledge is not acquired from teacher's narration or old memory, but learning from science method is refer to

process that students should search, explore and conduct research with all the things existed surrounding them. It will make students understand and feel the knowledge with its meaningful implication, then students can build their own knowledge resource and keep it in old memory (Yindeesuk and Dachakupt, 2005).

Perseverance has indicator mean score of 75.86. That score is in high category and it is supported by the opinion of (Dewey, 1973) who state that direct practice based-learning will make praxis pedagogy based-learning which contain reflective inherent activity. It become one form of constructivist learning model so it maximize learning process in depth and collaborative, support building knowledge in learning community in class and functioned as social experience, so their position become more stable and not easily broken.

Appreciating the proof has indicator score mean of 70.11. That score is in medium category. By doing analysis activity in fieldtrip, students' knowledge will be increase and it can enhance achievement and broader experience, so it will invoke the feeling to appreciate the proof which can be proved empirically.



(Hausamann, 2012; Pawek, 2012). Therefore, they will be more interest to learn natural science and the process of inventing that science (Veenville, Rennie, Hanbury & Longnecker, 2013). Thus, they have opportunity to be involved in scientific experiment and with direct involvement they will present authentic activity which will give them high motivation to learn and feeling to appreciate the proof even though it is different from knowledge in general.

Honesty has indicator score mean of 90.94. That score is in high category. The implementation of inquiry learning approach contained in fieldtrip had been very advocated in several last decade (Sanger, 2009) and had been verified that it is suitable to be used inside and outside class in all contexts of study, such as elementary school (Sanger, 2007), secondary school (Lati, Supasorn & Promarak, 2012; Patrick & Urhiewejire, 2012; Pholdee & Supasorn, 2011; Roehrig & Luft, 2004) and university (Green, Elliot & Cummins, 2004). It can enhance students' potency to develop science process skill and higher order cognitive skill which in turn enhance their conceptual understanding and learning achievement. It is not only support students to understand the science concept but also describe how to build their own knowledge through

inquiry learning cycle. In addition, fieldtrip is effective to change students to improve their alternative conception than learning which emphasize oriented book, but students' alternative conception and the existing knowledge before learning should be explored. This information can be used in designing inquiry activity which support students to change their alternative conception, which in turn will train their honesty to set forth the concepts which are not suitable between in the book and with what they encounter in field (Balcil, Cakiroglu & Tekkaya, 2006).

Objectivity has indicator score mean of 89.36. That value is in high category. According to Nezvalova (2005) that objectivity score can be developed by fieldtrip because this model create new experience based on earlier experience and reciprocal interaction with environment. It will grow the scheme which enable understanding and new reality which enter their thinking compared with earlier structure. The main base of that statement is that fieldtrip can develop the following: 1) Knowledge is build actively by individual who is learning; 2) Learning can be done individually or socially because sometimes in group and sometimes individually; 3) Learning is auto-regulative process in which each



individual learn with different way and according to its possibility bearing in mind the external condition they encounter; 4) Learning is operation process which enable individual to understand the world. From constructivist view, equilibrium direct to stability and consistency from cognition knowledge system which function to regulate their experience world, which is derived from objective reality. The goal of this learning is to understand the world through their own experience; 5) The reality represent interpretation. The pieces of information absorbed by individual is through their own interpretation and not as the truth about the world completely. The truth they encounter about the world is created by the individual him/herself and it build their own instinct; 6) Learning is social-contextual activity which is developed in environment which stimulate them to learn (Vasutova, 2001).

Wiling to change opinion has indicator score mean of 76.29. That score is in high category. In learning experience, students always set the goal of learning for themselves from their interest and concern, and try to achieve the goal when interacting with their surrounding environment. In fieldtrip including inquiry about the beach, for example, students will set the goal to visit the places, its

marine biota, various buffer environment, and various things which influence that marine ecosystem. Besides, this goal is not static during the process of experiential learning, but it can be dynamically lengthened with new thing which is brought by interaction with its surrounding environment, open extension such as learning goal which often encountered in learning/problem solving in daily life they encounter. Before starting fieldtrip, students are expected to set the goal they want to achieve and to decide some places they want to visit to achieve the goal. Then they will make trip planning including the route to visit a place and decide it. During in the trip, students are expected to follow the plan and to visit and interact with the things they encounter and to inquire it they will take a picture and take a note to represent the things they inquire, which shows experience knowledge acquired in the location of fieldtrip. After the trip, they are also expected to present their experience knowledge (Donovan et al, 2010; Jackson, 2014; Webb et al, 2009). Those steps will give stimulus to them about the opinion they believe during that time, because the truth of their opinion they believe had not been proved empirically, so by fieldtrip and empirical proof, they will more



believe the things they encounter and they feel directly.

Open minded and cooperate has indicator score mean of 78.16. That score is in high category; it is positive experience in the case of group work and relation with peers. Students' perception on open-ended question such as question: Please give information about Your relation with local people, various living creatures you encounter during fieldtrip, and another open-ended question, it is analyzed to show the variety of answers. There are some who aware that on one side some students state that local people had showed sincere and friendly behavior, and they had answered interview questions enthusiastically; on the other side, another students state that local people feel ashamed and do not answer the questions directly, because when they conduct observation in the beach, they should also conduct interview with people who are around the beach who familiar with that beach in their daily life. Those activities can increase their self confident, interpersonal skill, and ability to communicate openly and honestly (Donovan et al, 2010; Jackson, 2014; Webb et al, 2009).

Questioning attitude has indicator score mean of 71.5. That score is in medium category. The study conducted by Muralidharan & Sundararaman (2015) state that today,

one main goal of education is to develop critical, reflective and creative thinking to give students the abilities they need to become active and autonomous citizen and long life learner. This competence can be achieved through active learning stimulation which involve students, so it invoke various questions. (Zuckerman, Chudinova, and Khavkin, 1998). So far there are very few questions resulted from depth, critical and reflective thinking. It is possible happen because the lack of modeling which involve students to do that thinking. (Galton, Hargreves, Comber, Wall & Pell, 1999). The fieldtrip will invoke thinking which finally resulted in gap between the knowledge they acquire with the reality existed in field, so their curiosity ability will be emerged (Chinn, O'Donnell & Jinks, 2000). According to Zuckerman et al, Galton et al & Chinn et al, fieldtrip will invoke challenging cognitive question, and there is no response which show repetition of what had been stated by teacher before.

From the graphic above, the information is obtained that in general students have scientific attitude after undertaking integrated fieldtrip which is showed by achievement of each scientific attitude indicator measured. From that result study, it can be concluded that integrated fieldtrip followed by students can create



learning experience which can give positive influence to students' scientific attitude. Shakil et al (2011) mention that fieldtrip activity can give positive influence to students' attitude toward science and can increase students' motivation to learn biology object. Kern & Carpenter (1984) say that when students interact with biology object in fieldtrip then it will influence their attitude toward their environment. Fieldtrip is learning activity which can give positive influence to students' affective domain (Patrick, 2010). "Educational fieldtrip are also very helpful in developing the esthetic sense and spiritual satisfaction in students" (Shakil et al). Student interaction with object of biology study when implementing fieldtrip activity will increase students attention to that object moreover that object is the object of students' research. Students attention to that object certainly will influence students' attitude when they learn or handle that object of study.

Students interaction with the object of biology study researched will also influence students' scientific attitude directly and indirectly. Through fieldtrip activity. students' curiosity, creative thinking ability, perseverance, honesty and ability to cooperate will be trained, so it will give positive influence to quality of students' scientific attitude. As for

integrative content in fieldtrip will give positive influence to student' scientific attitude. One indicator that students possess scientific attitude is creative thinking ability. The relation between concept of one course with concept in another course in integrated fieldtrip make students easier to pose alternative solutions to a problem faced. Sa'ud and Rukmana (2006) state that integrated learning can develop students' creativity. The integrative content in integrated fieldtrip directly and indirectly influence on another indicator of scientific attitude.

#### **D. CONCLUSION**

Integrated fieldtrip program integrate Ecology, Invertebrate Zoology, Cryptogamae Botany, and Phanerogamae Botany courses. The integration of these courses is described from indicator developed. Indicator is developed by paying attention to integration of study content among the integrated courses. This indicator become the basic in developing learning experience in fieldtrip. Fieldtrip experience also developed by integrating inquiry experience. It is intended in order that learning experience can develop some competences needed by students.

Based on the study result, it can be concluded that Inquiry based-integrated fieldtrip can enhance students' scientific attitude which is





seen from indicator score mean of 80.22 which is in high category. Based on the result study above, inquiry based-integrated fieldtrip can enhance students' scientific attitude.

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