

# The conception of local wisdom value of Piil Pesenggiri (Indonesia) and scientific attitudes

## La concepción del valor de la sabiduría local de Piil Pesenggiri y las actitudes científicas

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### Abstract

This article is aim to understanding of scientific attitudes constructing of students through cultural values embedded in local culture of "Piil Pesenggiri". The research was conducted through implementing content analysis method. The result show the Piil Pesenggiri is the local wisdom which initially aimed for the character building of Lampung people through non-formal educations. The value of "Piil Pesenggiri" can be integrated in the learning process in formal education to embed the scientific attitudes of students.

**key words:** Piil Pesenggiri, scientific attitudes, local wisdom

### Resumen

Este artículo tiene como objetivo comprender las actitudes científicas que construyen a los estudiantes a través de valores culturales integrados en la cultura local de "Piil Pesenggiri". La investigación se realizó mediante la implementación del método de análisis de contenido. El resultado muestra que el Piil Pesenggiri es la sabiduría local que inicialmente apuntó a la construcción del carácter de la gente de Lampung a través de la educación no formal. El valor de "Piil Pesenggiri" puede integrarse en el proceso de aprendizaje en la educación formal para incorporar las actitudes científicas de los estudiantes.

**Palabras clave:** Piil Pesenggiri, actitudes científicas, sabiduría local

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## 1. Introduction

### 1.1. Background

Text Subchapter Culture has significant roles in education (Pompimon, Wallapha & Prayuth, 2014; Meliono, 2011; Bakhtiar, 2016; Rasna & Tantra, 2017; Suastra, Jatmiko, Ristiati & Yasmini, 2017). Regardless, culture is one of the pillars that needs to be continuously preserved. Cultures exist and conceived by a nation can provide benefits as well to its education sector (Dewi, Poedjiastoeti & Prahani, 2017; Suastra, 2017; Saefullah, *et.al.*, 2017; Toharudin & Kurniawan, 2017). The learning process is often using learning models originated from abroad, but how about the contextual learning? Which sometimes tend to be local and identical with its underdevelopment. Education should have national education goal and the character of the community.

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Therefore, each step done in the learning process will eventually lead to the true practicality (Yanti, Kuswanto & Rosa, 2019).

Indonesia is a country which culturally rich, however, culture-based learning is yet to become the primadonna in the education sector. Learning through cultures is one of the alternatives that can be made as the innovation in learning process (Pompimon, Wallapha & Prayuth, 2014; Dewi, Poedjiastoeti & Prahani, 2017). This condition comes with a reason in which culture is an element close to the learning environment of students. Education is defined as the teaching and learning activities are aimed for students to have proper knowledge, skills, and attitudes which can be passed down through learning activities at schools or environments. Culture itself is interpreted as the outcome of values or habits embedded by a society in a particular environment. This condition is surely illustrating the strong bond between education and culture. The role of the community becomes crucial as the enforcer and the promotor of the culture itself through education.

Lampung is one of the provinces in Indonesia which becomes one of the destinations of transmigration program. This condition affects the diversity of cultures brought by transmigrants to Lampung Province. This situation is interested to be studied in further of how the condition of multicultural communities in accepting the existing cultural diversity and how they adapt.

One of the local cultures from Lampung is Piil Pesenggiri which related to the order in behaving for Lampung people with the community around them. The values of Piil Pesenggiri have been introduced toward students since primary school, however, the implementation in the lives of students is yet to be known. Whether it's just a learning material to be delivered and memorized by students. Therefore, this article studied the way local culture of "Piil Pesenggiri" can be established as one of the foundations in the learning process especially in the science learning. The science learning itself requires the presence of scientific attitudes as one of the important factors which should be owned by students. One of the means to build characters/attitudes of a nation is by integrating the local culture value namely Piil Pesenggiri that is basically the foundation or habit of Lampung people in behaving within the community.

In view of the above, thus, the development of attitudes through local culture is crucial. Therefore, the author was interested to conduct a study concerning the theme of the transformation of cultural values as an attempt to establish scientific characters and attitudes of students on science learning (a case study on Piil Pesenggiri culture in Lampung). This study is an effort to analyze and discover new formula regarding Piil Pesenggiri culture to survive amidst the exposure of globalization and information flows. The formula in discussion is analyzing the Piil Pesenggiri culture which be integrated in science learning process to inspect the correlation between culture, science, and scientific attitude. Due to that matter, the main issue in this research was regarding the process of transforming the cultural values of Piil Pesenggiri as an effort to establish scientific attitudes on students in Lampung.

It has been known that in general, there are some related elements in the education process, namely introducing science, developing knowledge, discovering values, embedding attitudes as well as drilling skills. Thus, values contained in this local wisdom are expected to be used as one of the alternatives of values which can be embedded especially through the formal education.

## **1.2. Literature Review**

Text Subchapter Culture contains meaning as ideas, common sense, customs or something that is already becoming a habit which hard to be changed and complex on its nature (Soekanto, 2009; KBBI, 2000; Gunawan, 2000). Culture is a way of live which collectively grows and owned by a group of people and inherited throughout generations. Culture is formed from many complex elements, including religious and political systems, customs, languages, instruments, clothes, buildings, and artworks. Thus, culture encompasses all things acquired or

learned by humans as the community member. Culture consists of everything that is learned from normative behavior patterns. It means, it (culture) encompasses any means or mindsets, feeling, and acting.

Local wisdom is the identity or the cultural personality of a nation that causes the nation to be capable of absorbing, even processing cultures which comes from abroad/other nations to become its own characters and abilities. Those identities and personalities are certainly adjusted to the perspective of local communities to avoid the shifting of values. Local wisdom is one of the means in processing cultures and a form of self-defending against from poor foreign cultures. Local wisdom can be interpreted as local ideas that are wise, full of wisdom, have good values which embedded and followed by the community members.

Local wisdom is unwritten rules which become the reference of a community that encompass every aspect of life manifested through rules/regulations related to the relationship between humans, for instance;the relationship within the social interaction between individuals and group that is associated with the hierarchy in governance and customs, the marriage rules between clans, manners in the daily life. One of the preserved local wisdoms among Lampung people is “Piil Pesenggiri”.

Piil Pesenggiri is often defined as the symbol of self-esteem of Lampung people (Hadikusuma, 1990; Fahrudin, 2007; Irianto& Margaretha, 2011; Ariyani, et.al., 2015). Piil Pesenggiri as the local wisdom in Lampung becomes special because it is not merely the formulation outcome ofthe royal sides who own unlimited power but also the form of community empowerment done by establishing the character building(Irianto & Margaretha, 2013; Amaliah, Sariyatun & Musaddad, 2018; Muzakki, 2018).

Lampung grows and developed by providing respectable spaces for newcomers through Piil Pesenggiri. The transmigration project conducted since the past colonial era did not experience significant obstacles or disruptions, much less any threats. This condition is inseparable from the behavior of the local people who highly influenced by the life philosophy of Piil Pesenggiri. It will be unfortunate if values containing universal truths are unable to be immediately adapted by the education sector, therefore, the social engineering which formulated in such a way with noble wishes is lost for nothing despite the opportunity exists in the formal education, as the philosophy is able to maintain its existence. According to Fahrudin: 2007, Piil Pesenggiri as the combination between Piil and Pesenggiri has been enriched with elements namely *Nemui nyimah* (productive), *Nengah nyappur* (competitive), *Sakai Sambaian* (cooperative), and *Juluk adek* (innovative).

**Table 1**  
The Definition of Pillars in Piil Pesenggiri

Philosophy	Pillars	Definitions of Pillars
Piil Pesenggiri	1. <i>Bejuluk Beadek</i>	Having the personality which compatible with the customary title the person bears.
	2. <i>Nengah Nyappur</i>	Actively engaged in society and not being individualist
	3. <i>Nemui Nyimah</i>	Visiting each other to maintain a good relationship and being friendly in welcoming guests
	4. <i>Sakai Sambayan</i>	Mutual cooperation and mutual assistance between the community members

Source: Ariyani (2015:79)

The motivation to be productive for each person is formulated in the philosophy of Piil Pesenggiri with *Nemui nyimah* sentence. *Nemui* means guests, while *nyimah* is taken from the word *simah* which means polite. The existence of an individual is indicated by his/her capability to become a guest or welcome a guest or become a person who attenda meeting.The motivation to become competitive is formulated in the philosophy of Piil Pesenggiri with the *Nengah nyappur* word.*Nengah* in Lampung language has at least three definitions, namely hard work, competent, and competitive. While *nyappur* means tolerance. These three definitions of *nengah* is competitive-nuanced.

The cooperative attitude in the philosophy of Piil Pesenggiri is formulated with the word of *SakaiSambaian*. The word *sakai* in Lampung language comes from the word *akai* which means open. While the word *sambai* means scout, read or learn as well as cautious. The philosophy of Piil Pesenggiri which encourages to act innovatively with the formulation of *Juluk Adek*. The word *juluk* in Lampung language is a new name given after a kid able to plan his/her purpose, while *adek* or title is a new name or title given toward someone who has accomplished his/her purpose.

**Table 2**  
The indicator comparison of  
Scientific Attitudes of Experts

<b>Gegga (1977)</b>	<b>Harlen (1996)</b>	<b>Association for Advancement of Science(1993)</b>
Curiosity	Curiosity	Curiosity
Inventiveness	Respect for evidence	Honesty
Critical thinking	Critical Reflection	Open minded
Persistence	Perseverance	Skepticism
	Creativity and inventiveness	
	Open mindedness	
	Creativity and inventiveness	
	Cooperation with other	
	Willingness to tolerate uncertainly	
	Sensitivity to environment	

Attitude is the condition of humans which moves the action associated with a certain object either its positive, negative or neutral (Olasehinde & Olatoye, 2014; Jancirani *et al.*, 2012; Antonoglou et al, 2011; Sarwono, 2010; Djaali, 2009; Hamdani, 2011; Azwar, 2011; Aunurrahman, 2009). One of the aspects that needs to be emphasized in learning science is scientific attitude. Four scientific attitudes that need to be applied in the learning of science are curiosity, inventiveness, critical thinking, and persistence (Anwar, 2009). Several views of experts regarding the categorization of scientific attitudes can be seen in Table 2.

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## 2. Methodology

The approach used in this research was a qualitative approach by applying a content analysis method. Content analysis is a research instrument which does not focus on actual content and media internal feature or indirectly study behaviors through communication analyses such as text books, newspapers, articles, and every type of communication that can be analyzed (Franekel & Wallen, 2007; Komariah& Satori, 2012).

The procedures of content analysis used in this research were as follow: (1) determining specific goals to be achieved; (2) identifying terms which have to be explained in details; (3) specializing units to be analyzed; (4) seeking relevant data; (5) building rational or conceptual relationship to explain the correlation between data and objectives; (6) planning the sample collecting; (7) formulating the coding of categories. Instruments used in this research were documentation as well asopen and closed interviews

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## 3. Results

Every teaching inherited and maintained for centuries is not priceless. Piil Pesenggiri is a set of activities dedicated as the character building. Values applied by Adat institution of Lampung on its community after being analyzed on each aspect of Piil Pesenggiri are shown in Table 3.

**Table 3**  
Values contained in Piil Pesenggiri

Philosophy	Pillars	Contained Values
Piil Pesenggiri	<i>Bejuluk Beadek</i>	Innovative
	<i>Nengah Nyappur</i>	Competitive
	<i>Nemui Nyimah</i>	Productive
	<i>Sakai Sambayan</i>	Cooperative

The discussion of values contained in Piil Pesenggiri has been elucidated specifically before as summarized in the Table 4 as follows.

**Table 4**  
Values of scientific attitudes contained within piil pesenggiri

According to Harlen (1996)	Piil Pesenggiri (Ariyani, 2015; Fachrudin, 2007)	Scientific Attitudes
<i>Curiosity,</i> <i>Respect for evidence,</i> <i>Critical Reflection,</i> <i>Perseverance,</i> <i>Creativity and inventiveness,</i> <i>Open mindedness,</i> <i>Creativity and inventiveness,</i> <i>Cooperation with other,</i> <i>Willingness to tolerate uncertainty,</i> <i>Sensitivity to environment.</i>	PIIL Pesenggiri, as the combination between PIIL (pre-Islam) and Pesenggiri through Islamization process, has been enriched with elements namely <i>Nemuinyimah</i> (productive), <i>NengahNyappur</i> (competitive), <i>Sakai sambaian</i> (cooperative), and <i>Juluk adek</i> (innovative).	<b><i>Bejuluk Beadek:</i></b> Think critically, creative and inventive.  <b><i>Nemui Nyimah:</i></b> perseverance, curiosity  <b><i>Nengah Nyapur:</i></b> respect toward data/facts, sensitive toward environment  <b><i>Sakai Sambayan:</i></b> being open minded and cooperative

Each pillar has been described explicitly regarding its elucidation. In Table 5, it can be seen that each attitude can be developed into several measurable indicators for student learning at schools. This description is one of the means of how education can still embed values of attitude which are contained in the local wisdom in the learning process that be adjusted to the progression of era.

**Table 5**  
Dimensions of scientific attitudes and the indicators

No	Dimensions of Scientific Attitude	Indicators
1.	Curiosity	Showing the curiosity on everything that requires explanation Always asking question Spontaneously using information sources to discover new things
2.	Respect for evidence	Objective/honest Not manipulating data Taking decisions based on facts/evidences Not mixing facts with arguments
3.	Critical thinking	Having skills/capabilities in facing challenges Having lots of ideas/creative

No	Dimensions of Scientific Attitude	Indicators
		Thinking critically on previous investigations as well as social and environmental issues
4.	Innovative and Creative	Sparking ideas, answers, problem solving or questions Capable of giving recommendations or means Considering different alternative answers
5.	Open-mindedness and cooperativeness	Always accepting criticisms or advices from others Conducting self-introspection for weaknesses Respecting the arguments/findings of others and willing to change the argument if lacking the data Having positive thought toward the performances of others Giving and asking the assistance of others if facing any difficulties Actively participating in groups
6.	Perseverance	Having commitment to reach the best result Being persistent in learning Seeking new sources of information that useful for self-progression
7.	Sensitive to the surrounding environment	Concern about the surrounding events

The conducted elucidates have identified that Piil Pesenggiri is not merely becoming the local wisdom but also capable of embedding scientific attitudes on the learning process at school. Piil Pesenggiri was previously done through the non-formal path because it has no platform or institution that allows the management of education issues. By performing this content analysis, Piil Pesenggiri is expected to be able of being utilized by formal education at school presently in the embedment of scientific attitudes on students because in principle, education is not only the process of transforming science, but also embedding attitudes and practicing skills. Those three have to be continuous.

## 4. Discussion

### 4.1. The Conception of the Local Culture of "Piil Pesenggiri"

Piil Pesenggiri, the local wisdom of Lampung which has moral messages in behaving and acting since centuries ago, thus, it led the people at that time into this modern ear. Piil Pesenggiri is developed by empowering the community for character building with the practice of designed customary rules. Piil Pesenggiri is not made due to the authority of a leader in a particular region, therefore, it keeps maintained by the community or adat institutions in Lampung. The life philosophy of Lampung people before the integration with Islam was Piil which means self-esteem/pride. The elements of Piil itself are (1) a man's pride is woman; (2) a woman's prides are money, jewelry, and food; (3) the prides of a daughter are her beauty and behavior; (4) the pride of a man is his reliable words.

At the beginning, Piil Pesenggiri was designed for the plan of the establishment of Islamic sultanate in Lampung. This effort was aimed for the acculturation process between two cultures, Sumatran culture and Javanese culture. The acculturation process is one of the impacts acquired from the government program; transmigration, from Javanese Island to Sumatra Island. At that time, Javanese culture was known as capable of holding the power (empire) and Sumatran culture which was relatively democratic. The plan of the establishment of Islamic Sultanate was eventually failed due to some things including the removal of Demak empire's capital and the

discovered plan of the union of Javanese and Sumatran cultures which was alleged to have a strong defensive power.

The impact of the failure of the establishment of Islamic sultanate was the implementation of Piil Pesenggiri which cannot be done through formal education because there was no sultanate/empire that can administer formal education to host it. Piil experienced the Islamization process, thus, the word Piil is paired with Pesenggiri (Sundanese) which means a contest. Race in this context is contesting in kindness, according to the Islamic value; "*fastabuhu al-khoiroh*". This condition explains that the values contained in Piil Pesenggiri will provide kindness for those who applied them in social life.

## 4.2. Piil Pesenggiri Values

*Bejuluk Beadek*, the first pillar of Piil Pesenggiri as the basic right conceived by Lampung people (*Ulun Lampung*). A child should bear the name given by the parents, *bejuluk badekis* the awarding of title on someone. *Bejuluk* is the name given toward a child who has capable of planning his/her purpose. *Badek* is the provision of name toward someone after he/she is capable of achieving his/her purpose. Thus, in principle, everyone has a nickname (*bejuluk*) and acquires customary title after he/she grew up (*badek*). The process in which someone receiving a new name or title is an effort that needs to be appreciated, the Adat community of Lampung does this effort through the *bejuluk beadek* traditional ceremony. This pillar is the momentum of which an individual can change or reach targets in his/her life. This condition reflects the struggle of someone in achieving his/her purpose/dream. The struggle in accomplishing a certain purpose is surely followed by different difficulties and challenges, at this stage, the innovative attitude of someone is required to constantly conduct changes and updates.

*Nengah Nyapur*, the second pillar illustrating that the Lampung people honor the sense of family and community, put no differences in races, religions, origins, and others. This pillar shows the sociable attitude within the community so it nourishes high sense of tolerance and cooperation. *Nengah* in Lampung language bear a meaning as hard work, competent and competitive, while *Nyapur* is defined as tolerance. *Nengah Nyapur* can be defined as the effort or hard work of someone in gaining maximum results without harming others.

*Nemui Nyimah*, derived from the words *nemui* and *simah*. *Nemui Nyimah* can also be defined as an expression of kinship to create a harmony and friendship.

*"nemui nyimah sijikan, nemui sina bertamuram ngedok tamu nemui nyimah. Nyimah sijikan ditampani dengan baik-baiknya juk sijalah mansa respon. Sikindua mak pandai nyeritako sija. Da'a na juk sina"*

The quote mentioned above is an outcome if it's interpreted as bearing a meaning in which *nemui nyimah* has generous, open, giving and accepting natures; in a material sense that in accordance with the capability. This effort is the way of treating guests. Thus, each individual is expected to conceive good skills in welcoming guests. *Sambai* means scout, read or learn as well as cautious. The pillar of *Sakai Sambayan* explains that someone should be able of being open toward the process within the community, willing to accept inputs and criticisms from others.

## 4.3. Piil Pesenggiri in Formal Education

Table 4 explains how the pair of values of the attitudes contained in Piil Pesenggiri are being integrated into scientific attitudes that applied in the learning process. According to Harlen (1996), scientific attitudes encompass curiosity, respect for evidence, critical reflection, perseverance, creativity and inventiveness, open

mindedness, cooperation with others, willingness to tolerate uncertainty, sensitivity to environment. All these scientific attitudes are being integrated into values contained in the local wisdom of *Piil Pesenggiri*.

*Bejuluk beadek* describes the element of someone's motivation in achieving his/her purpose. If associated with the learning process, every student at the beginning of the learning will be given with purposes of the learning process which will be done. In relation to the *bejuluk beadek* pillar, there is a purpose which should be achieved (*bejuluk*) and given with reward (*beadek*). The process of *bejuluk beadek* illustrates how someone should constantly conduct innovations in the journey of accomplishing the objective and how students conduct self-updates to reach the learning purpose. According to the description explained above, thus, the *bejuluk beadek* pillar can be said as having innovativeness which can be indicated by critical thinking attitude, inventiveness and creativeness of students in the learning process.

*Nemui Nyimah* is the formulation of pillar which motivates someone to be productive. The existence of an individual can be seen from his/her activeness in the meeting. In the education sector, this existence can be seen from the activity during a discussion or organizational activities of students at school. In the context of the community, *nemui nyimah* is the capability of someone in treating guests, acting politely and attempting to welcome the guest with his/her best effort and the way every individual is positioning himself/herself as the guest or the host who welcomes guest in a meeting. Each individual has different interests and purposes, in this manner, the capability of each individual in participating or contributing in a meeting to find a conclusion from various arguments can be seen. The conclusion that will be reached is expected to be able of fulfilling the mutual interest. Therefore, to be polite, someone is expected to be productive in his/her respective field so he/she can fulfill his/her own needs and the needs of people he/she responsible with. Thus, the education sector is the step on how students can be productive in a discussion or meeting. A student can develop perseverance and curiosity.

*Nengah Nyapur* is the pillar illustrating the way our community should compete to each other and maximize the skill they have in positive things and for the sustainability of the society. The competitiveness owned by an individual should be followed by tolerance as the catalyst. In education, each student is demanded to compete with each other in the learning process; not to categorize the good or poor students but to practice the ability to fight in reaching goals. How if students set in groups are given with problems during the learning process? Each individual within the groups will still be competing to each other in achieving individual targets as well as becoming the support system in the groups. In this pillar, the scientific attitudes of students might emerge, namely the respect for evidence and the sensitivity toward environment.

*Sakai sambayan* is the pillar that looking into the existence of someone through its capability of being open in receiving criticisms and advices as self-evaluation and accepting inputs as the update. The motivation in the willingness to accept something that comes from outside as the basic capital of individuals in plunging into the society. Therefore, *sakai sambayan* attitude in practice is indicated by the capability of having good cooperation with others. The scientific attitudes emerge from this pillar are open-mindedness and cooperative.

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## 4. Conclusions

*Piil Pesenggiri* is the local wisdom which was initially aimed for the character building in the acculturation process of people. Along with the progression of time, the opportunity of education in actualizing values contained within the local wisdom of *Piil Pesenggiri* is wide open. *Piil Pesenggiri* can be integrated into the learning process in class to embed scientific attitudes on students. Moreover, it is expected that the embedment of values contained in *Piil Pesenggiri* can stimulate the establishment of life skills.



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