UNHI-GAP India 2019 International Conference

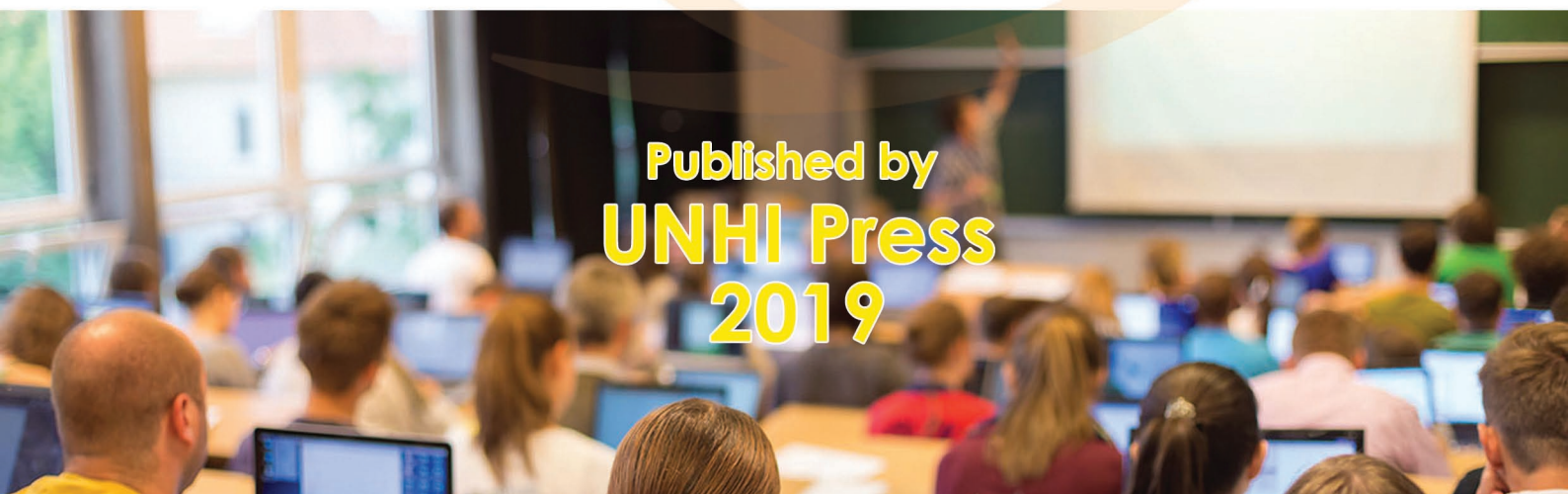# Possibilities and Probabilities
in Higher Education of Asia

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Universitas Hindu Indonesia, Denpasar, Bali, Indonesia

Unhi - GAP India 2019

International Conference "Possibilities and Probabilities in Higher Education of Asia"

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CHAIRMAN'S PREFACE

Om swastyastu,

Welcome to Universitas Hindu Indonesia

This gives me an immense pleasure to learn that Universitas Hindu Indonesia (UNHI), Denpasar, Bali is organizing an international conference on "Possibilities and Probabilities in Higher Education of Asia". With the academic involvement and support of Grand Academic Portal (GAP) India, this conference in Bali would open new vista of cooperation between India and Southeast Asia with the common issues in higher education.

There are more than 50 papers will be presented on the conference which held on May 3, 2019 hosted by Hindu University of Indonesia. The greatest academic issues that will be discussed in this forum are possibilities and probabilities in higher education of Asia. Through this seminar, we enriched and expanded the accessible information on the latest research and sciences, and for sure the enhancement of academic linkage in Asia.

We sincerely hope that this seminar could be an academic discussion for scholars from various fields of interest, and get the noble goal. And I would like to thanks especially to GAP India for the cooperation and to all participant for their kind participation.

Om santih, santih, santih, Om

Denpasar, May 2019

Prof. Dr. I Ketut Suda, M.Si.
Chairman

Message from the Director of Grand Academic Portal, India

Namaskar.

Greetings from India. We, at Grand academic Portal, are very grateful to the Universitas Hindu Indonesia (UNHI), Denpasar-Bali, for organizing the joint international conference on 'Possibilities and Probabilities in Higher education of Asia'.

Grand academic Portal is an NGO to provide a supplementary and complementary element to the existing formal higher education system in India. The founders have collectively envisioned a platform to provide an innovative, free, equal, equitable, collaborative, sustainable, and all-inclusive teaching-learning-pedagogy environment to all the stakeholders of the higher education in India.

We strongly believe that this conference will help us to reach out to much like-minded academia and we will be able to share our vision and mission of the borderless education with all.

Prof. Dr. Gurudutta P. Japee
Director, Grand Academic Portal (GAP) India

CONTENT

THE EFFECT OF MODERN LIFESTYLE ON CONTEMPORARY CULTURAL SOCIETY

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Abstract. This article described the effect of modern lifestyle on contemporary cultural society. The data were collected through literary study and analyzed by using culture studies approach. The result show that time was the main obsession in modern society. Empirically, the modern society did the time adoration to produces speed, accuracy, as well as division. This phenomenon can be seen by industrial capitalism which caused proverb lifestyles "first come, first served" related with the concept of "time is money". The time construction and co-modification generate the terms of "work". Eventhough the modern society created time as an axis of progress and prosperity, this phenomenon presented in lexical meaning and even "fashion" that effect disorientation and dislocation of contemporary cultural life in society.

Keywords: Lifestyle, Modern, Culture, Society.

Introduction

Background

The proverb '' time is money'' uses as one of motto in the modern society. This proverb implied the condition of modern society which use their time to work and pursuing of desires in the form of materials or objects that show they have modern lifestyle. Thus, they work to get money as well as being the meaning of human life.

Lifestyle was the part of secondary human needs which is changed depending on time or human desire who want to change their lifestyle. Lifestyle can be seen from the way to choose, habits, and others. Lifestyle can be assessed relatively depending on another people and lifestyle can also use as a guidance and taboo. Some examples of good lifestyle are eating and resting, eating good food materials which is known as " 4 sehat 5 sempurna" etc. Meanwhile, the examples worse lifestyles are gossiping, eating haphazardly, and etc. (http://id.wikipedia.org/w/gaya-hidup).

Currently, humans could not deny and avoid the problems of modernization in all life aspects. The development and progress of science and technology were rapid, high tolerance; an intercultural encounter that highly intense and interrelated were increased socio-cultural access included lifestyle issues in the community members.

The influence of modernization and globalization has been caused a shift in traditional cultural values to be unavoidable. This condition is characterized by interesting both as individuals and group manifestation. Besides, inevitably is open or latent in society. There were some examples that showed these phenomenons such as student brawls that found in some regions, motorcycle gangs which disturb the community, etc. Thus, those examples indicated there have been shifts in cultural values and destructive effects both morally and materially.

The modernization era is founded in our live which practical and sophiscated. Besides, all of activity can be done quickly and instantnable. This behavior is known as "modern lifestyle" that describes as the emergence of latest pattern of human behavior in life according to the time demands. Thus, the modern lifestyles generally focus on open-paced lifestyle in any field which made people to explore the brain's ability by creating some innovation and use time as beneficial values. However, the lifestyles development already had roots in all elements which unconsciously brought an influence and important impact that changed the mindset of each individual.

Similarly, in the modern era can be stated that all fields used high technology that was ingrained in the various fields of human life included individuals, individual technology public technologies. The use of this high-level technology required resources which cause dependency if not owned by a country to support the use of technology, such as fuel oil (BBM), BBG, electricity, nuclear, etc.

Modernization can be produced high technology and complex. The results of technology can indirectly affect in the human lifestyles. This happened because the basic principle of the technology was to facilitate the human creation in reach the daily necessity. That condition encouraged people to change their lifestyle from the manual and simple lifestyle to instant and practical lifestyle (modern lifestyle). Thus, all of these affect the the way of thinking and human lifestyle in the daily activity.

Human behavior in modernization was increased the dynamics change rapidly, includes lifestyle as an impact of the advance technology. The human lifestyle sometimes reflected their behavior which all caused by a lacking of supervision and introspective of modernization and sophisticated technology. Therefore, human as civilized human beings and animal rationale would have an awareness of their attitude / actions which would not give a bad effect to themselves or others. Thus, it was appropriate to us to build a mindset and good lifestyle togetherness.

Problem Statement

Based on explanation above, this article discussed the main issue: "Does the modern lifestyle influence on the cultural life of contemporary society?"

Discussion

As already mentioned above, the progress of science and technology in the modernization era generally influenced the mindset, attitude and lifestyle in maintaining their existentence among God's creation. The progress achieved by humans in all aspects including lifestyle due the modern technology is influenced and have an impact on the cultural life society.

Discussing about the impact of modern lifestyle can be classified into several things, both positive and negative, namely:

1. Instant Lifestyle

The instant lifestyle has mushroomed everywhere and there were a lot of things can be minimized. Sometimes, human did not need to use much energy in order to achieve it. Thus, the workload has been alleviated by the improvement modernization tools of information and communication technology, and also modern transportation facilities.

One of the example in our daily life was sometimes the barber currently used an electric shaver rather than manually. By using the electric shaver, the barber can be used an efficiency time. In addition, there were some impact by using electric shaver included the barber would be faster in cutting the customer hairs , increase the quantity of customers, and the barber did not feel tired during the shaving process. Thus, there was some beneficial effect which is got by the service providers namely works effectiveness and minimize the energy. Similarly, the customer also got a positive effect in terms of time.

Another example of technological advances in the modern era was online services. This service is one of the breakthroughs in the business world which have aimed to facilitate consumers in fulfilling their daily needs. The concepts of online service were instantaneous and practically that increased rapidly, become the first choice, and even the lifestyle in today's society. The variety of online services also promoted in the public area, especially some big cities. In this case, the people used online services to telephone payment, electricity, and incidental service such as air tickets, trains, night buses, hotels, etc. Those are certainly caused instant-paced lifestyle. This is supported by some phenomenon such as they do not have to maximize their energy to visit some place, or even they did not need to queue which showed contemporary society in the modern era.

Therefore, the development of this technology was very useful and gave positive impact for the human in the modern era. Besides, the result of modern technology result was brought instant lifestyle. Similarly, if viewed more detail that humans would be able to serve and this is a sign that people were basically glad with this phenomena.

2. The Weakening of Social Aspects

The modern lifestyle also brought the negative sosial aspect in the society. The proverb "time is money" in the modern era became a tremendous motivation to improve the spirit of society. However, the fact is shown that people still busy with their job, career or life demands. In this case, some people might be forgetting to interact with the social environment, and ultimately lead to build individual characteristic which found in the big cities or metropolitan cities. So that, there was also an orientation shifting or values from seeking status into making money that showed by the situation where in old time people got some money from their status but now the reverse status is obtained from money (see, Sarlito: 1997: 192).

Beside that, the modernization has caused the emergence of anti-social human nature because they argued the socialization was not only build in the community but also in the cyberspace. In this case, the persons who are not accepted in the environment can find another community in social media. There were many communities which are found in the social media likes Facebook, Instagram, etc.

In addition, the technological advances in modern era gave some negative effect likes the person who could not appreciate and applied the values and norms which believed as eastern custom and tradition included manners, harmony, mutual cooperation, etc. These situations showed the degradation of moral value in the society. In this case, this phenomenon was clearly found in big cities which have lower valuable values in the daily life. Thus, there were a lot of people had arrogant characteristic. They showed luxurious lifestyle to another person. As the result, other people tried to follow that lifestyle without caring about their economy (see also: Onghokham, 1997: 135-139).

Based on those situations, it could be stated that people argued money is everything without regard the nature of social beings. Therefore, humans should cultivate their awareness by using their minds to protect theirselves from negative side. In addition, humans should be improved their awareness similar with the concept of "Tri Hita Karana" which explain the harmonious relationship with each other (pawongan), the harmonious relationship with the environment (palemahan), and the harmonious relationship with God (parahyangan). Through implementing the local wisdom, the human would be able to create the harmonious relationship with another people, the environment, and God without worried with the improvement of modernization nowdays.

There was also a new fact explained that in the modernization era God is retired. It means that, humans did not need God's intervention in overcoming their life. Besides, they regarded themselves as being an adult and free to choose according to their own will. The God's farewell was blown during the modernization project.

3. The emergence of addictive personality (idler)

The existence of modernization caused many people more spoiled as a result of various kinds of technological sophistication and something that they need would be quickly fulfilled. This situation will lead the addictive personality and the person would not be tried harder in achieving something (https://gayahidupmu.com). One of the examples of addictive personality was delivery order. Delivery order lifestyle usually uses by some people if they were faced up with busy situation. They will use this service in some activity likes ordering some good, food, or even another service which they needed. Besides, we could find there were some people forgot their times or schedule in the modern era. As an example, the gamers often forgot to fulfill their psyhcal need likes eating and drinking. In another words, they were enjoyed play the game by using the modern technology without caring themselves. Likewise, they also forgot to pray and avoid themselves from the real society. From those explanations, we could be argued that in the modern era, in fulfilled their desires or needs humans cannot be separated from technological advances. Thus, they become dependent with modern technology and become an idler to increase their creativity in the daily life.

4. Healthy effects

The modern lifestyle also gave negative effect for our health. This was evidenced by the situation that humans easier to get what they want. As an example, there were many fast food concepts which found in our daily life. In this case, the fast food concept made consumers do not have to wait long. The efficiency of fast food unconsciously gave negative effect to our body. The human body will be having serious problems or diseases such as heart disease,

shallow, cancer, etc. In addition, several adult are infected with mental illness because they could not follow trends in the modernization era (see: https://www.cnnindonesia.com/gaya-hidup/)

The emergence of serious diseases is accompanied by the improvement of health technologies that used in the medical. These technologies were able to solve health problems that faced up by all people in the world. Thus, the healty technologies are categorized as one of modern lifestyle. This lifestyle should be noticed so that the people could keep their body from the diseases attack.

Conclussion

Based on the description above, it can be concluded that the "modern lifestyle" can not be separated from the progress of science and technology that encourage people to adapt by using their intellectual ability or knowledge to be able to maintain the existence, both individual, social, and cultural. From these contexts, the modern lifestyle is influenced to modern contemporary cultural behavior that supported by the society. Therefor, critical social theory believes that culture it is not static (given) but it is dynamic which is always constructed by supporting culture (see Chris Barker : 2005: Wirawan, 2013; Ben Agger: 2013). Thus, the modernization in all aspects includes lifestyle issues are certainly giving color to the social and cultural dynamics in today's society. The dynamic means that the society and its culture still exist. However, the environment which has static society and many possibilities shows as society and culture doesn't alive. Therefor, the improvement of science and technology in the globalization era will give beneficial effects and influence to human lifestyle. In this case, peoples are expected to have the ability in differentiating good and bad behavior in the modernization era. In other words, people should be rational and having principle "necessity is more important rather than the desire" so that they can not affect a negative lifestyle which known as "consumptive" and "hedonism" (see: Bawa Atmadja, 2010). Thus, people can survive in the modernization era by using the modern technology to increase the quality of human life and they will not be enslaved by the more desires which give negative effect to themselves.

References

Agger, Ben.2013. Critical Social Theory: Critique, Implementation and Implications: Yogyakarta : Kreasi Wacana

Atmadja, N, Bawa. 2010. Ajeg Bali: Movement, Cultural Identity and Modernization, Yogyakarta: LKiS

Barker, Chris.2005.Cultural Studies: Theory and Practice, Yogyakarta: PT. Benteng Pustaka

Onghokham.1997. "Show Kemewahan, Suatu Simbol Sukses", dalam Lifestyle Ecstasy: Pop Culture in Society Commodities Indonesia. Yogyakarta: Jalasutra

Sarwono, Sarlito Wirawan1997. "Gaya Hidup Kawula Muda Saat Kini", dalam Lifestyle Ecstasy: Pop Culture in Society Commodities Indonesia. Yogyakarta: Jalasutra

Wirawan, IB 2013.Teori- teori sosial dalam Tiga Paradigma: Fakta sosial, Definisi Sosial dan Prilaku Sosial. Jakarta: Kencana Prenadamedia Group

http://id.wikipedia.org/w/gaya-hidup (March 14th 2019)

https://gayahidupmu.com/2017/06/22/dampak-postif-dan-negatif-gaya-hidup-masyarakat-modern/ (April 2nd 2019)

https://www.cnnindonesia.com/gaya-hidup/20150212055649-262-31523/gaya-hidup-modern-yang-rentan-terhadap-penyakit (April 3rd 2019)

DESIGNER BABIES THROUGH AYURVEDA

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Abstract. A healthy, intellectual, beautiful progeny with uneventful healthy long life is desired by all. Science reveals the fact that the anatomical, physiological, psychological built up of offspring is dependent on parents who provide 'genes' for specific characters to the child. The term "designer baby" refers to a baby whose genetic makeup has been artificially selected by genetic engineering combined with In Vitro fertilization to ensure the presence or absence of particular genes or characteristics. The legal and ethical aspects of designer babies are still debatable. Ayurveda, the age old science of life has described the methods of procurement of a better and healthy offspring in detail.

Key words : Designer baby, Pre implantation genetic diagnosis, In vitro fertilization

Introduction

In 2004, the term "Designer Baby" could be found in the Oxford English Dictionary and it was explained as a baby whose genetic makeup has been artificially selected by genetic engineering combine with in vitro fertilization to ensure the presence and absence of particular gene and characteristics. [1]

Revolution in technology, fierce competition for survival and desire to achieve a superior human has led new generation scientists to develop a disease free genetically modified offspring with desired traits. The term 'Designer baby' has gained much popularity amongst rich and western countries where a offspring is artificially selected by genetic engineering combined with In Vitro fertilization. Success in modifying other mammals through these methods led proposals to apply such methods on humans for biological improvement.

Technique Of Creating Designer Baby

The whole process is done artificially where first the ovaries are hyperstimulated by giving hormones and then when the follicles mature, Transvaginal ultrasound-guided oocyte

retrieval is done and through ICSI technique (intra cytoplasmic sperm injection) ovum are fertilized in test tube. (In vitro).[2] These fertilized ovum are brought till embryo (eight cell) stage at which point cells are removed and tested using a technique know as Pre implantation Genetic Diagnosis (PGD). PGD is performed prior to implantation. Genetic diseases like Cystic fibrosis, Down's syndrome, muscular dystrophy, sickle cell anaemia etc are tested by using the technique of bio technology that is polymerase chain reaction [3]. Analysis of genetic material (DNA) from a single cell is performed using a technique called FISH (fluorescent in situ hybridisation) .or PCR. During the analysis on the single cell, the embryos are kept in culture and allowed to further divide. Many couples use this procedure if there are any inherited disorders in their genes to decrease the possibility that the disorder will passed to their child. If the genetic disorder appears the defected genes are replaced with healthy genes. Unaffected embryos are transferred into the uterus to achieve an outcome of a chromosomally normal baby.

Earlier such techniques were only used to rule out genetic abnormality in a offspring of a couple with obstetric history of genetically malformed children OR with purpose of acting as a donor for sibling suffering from non curable rare disorders. In the recent times, such genetic engineering techniques and modifications are widely believed to be capable of altering full range of biological traits, from gender to susceptibility to disease and eventually appearance, personality and even IQ. [4]

Some genetic disorders are specific to one gender or another, such as hemophilia, which usually affects boys. Doctors may examine the cells to determine the gender of the embryo. In a case where a family has a history of hemophilia, only female embryos are selected for placement in the uterus. This practice is at the center of a larger debate about whether parents should be able to choose embryos purely on the basis of gender. Some people worry that it could lead to an imbalance between genders in the general population, especially in societies that favor boys over girls, such as China.

While PGD enables us to pick out embryos that don't have genetic disorders, and even chose the gender we want, it is only the beginning of what genetic engineering can do. Parents could some day custom-order babies with certain traits.

In India, where the selection and determination of gender of offspring is a crime under PC PNDT act, yet the fertility market with mushroom booming of IVF centre's are unobserved by legal authorities. The fact Couples visiting IVF centre to attain a desirable child with outstanding cricket playing capacity, or singing capacity or with extraordinary looks had become a main script of movie and had received great attention.

A recent survey found that about 10 percent of a group who went for genetic counseling in New York City expressed interest in screening for tall stature and that some 13 percent said they would be willing to test for superior intelligence. In the U.S., no binding rules deter a private clinic from offering a menu of traits or from implanting a woman with a collection of embryos.[5]

Future Concern

Ethical, legal, social controversies loose grip on society as demands of creating such babies make its own market. However, only the rich can afford such techniques as the IVF and Pre

implantation genetic diagnosis costs around 3,00,000 to 4,00,000 per cycle and a couple needs to repeat attempts for successful pregnancy as the success rate of IVF is only 10 -35%. [6]

The bioethicists are concerned about the future of humans. As such enhance humans artificially selected might become prejudiced against one another due to a feeling of lost common humanity with non enhanced groups. Also the society will be bias towards the superior humans than the natural ones. Moreover the future of these designer babies is still not known.

There is a wide variety of biological risks with genetic modifications. New diseases may emerge which will be difficult to prevent. One report from Children conceived through cytoplasmic transfer has been diagnosed with pervasive developmental disorder where symptoms range from mild delay in speech to autism. The repercussions of using these technologies have not been adequately tested.[7]

The booming fertility market and fertility doctors becoming GOD for infertile couples and experimenting on embryos before implantation should be under surveillance of medical experts and law. The imperfect and abnormal embryos are destroyed and there is no debate whether to destroy such embryos is legal or criminal.

As this technology is still in its starting phase in many countries, the future circumstances are failed to be recognized. Rules and regulations and their proper implementation should be put before its very late for any action in this regards.

Mass discrimination among humans in future can even lead to violence. Genetic and biological risks are yet to be identified. A big danger is awaited in future and immediate action is required to prevent it.

Designer Baby Through Ayurveda

Garbha Samskara :

Garbha sanskara is made of two words Garbha and Sanskara.

Garbha means fetus and Sanskara means to replace bad qualities by good ones. Sanskaras are milestones that inspire the individual the importance of new role and to observe the accompanying rules.

Since ancient times, in tradition, the Sanskaras have been considered as physical representation of a symbolic change in the life of an individual.

Hence Garbha Sanskar is a process to achieve physical, mental, spiritual, emotional, social development and perfection for the mother and baby.

It is a child begetting religious ceremony, a method for a worth full child, to endow future generations with good health, noble quality and high intelligence by improving the innate quality of human kind.

Garbha sanskar literally means education of child inside the womb for attaining a civilized, cultured, brilliant, beautiful, disease free offspring with physical strength and other qualities like humanity, sincerity, compassion, spirituality, loyalty, courage etc. which are the need

for present era. In the 21st century with the development of science in the form of GOD's particle and other astounding technological growth on one side; there is increase in the prevalence of inhumane activities, crimes, addictions, suicidal attempts, terrorist activities etc. which is a matter of utmost concern for our future generation.

Durapatyam Kulangaro Gotre Jatam Mahatyapi | (A. H. Sha. 1/29)

The progeny with bad character even if born in high family destroys the reputation of whole family.[8]

Ayurveda believed in attainment of desired progeny by observing certain regimen and mode of life which includes specific Ahara, Vihara and Paricharya. The do's and don't's mentioned in the classics are very precise explaining the consequences (anatomical, physiological & psychological) on offspring.

Shukra Asrik Atma Ashaya Kala Sampad Yasyaupacharascha Hitestatha Anne |

Garbhascha Kale Sukkhi Sukham Cha Sanjayate Samparipurna Dehe ||

(Ch. Sa. 2/6)

Best of male and female gamete (sperm and ovum – through Shodhana and following regimes before conception) Atma, Suddha Garbhashaya, proper kala (Ritukala), and observing Garbhini paricharya properly will ensure timely and normal delivery of a healthy offspring. [9]

Ayurveda believes in passing not only physical but emotional and psychological traits in offspring like Honesty, Sincerity, Loyalty, Compassion, Diligence, Courage etc.

Method Of Procreating A Excellent Progeny

Summarizing the methods for procuring a healthy progeny explained in Ayurveda classics, a couple should select a partner which is of different Gotra (clan) and of proper age, one who is not diseased. Intercourse should be prohibited during the time of menstruation, presence of any diseased condition, hungry, thirsty with full diet and other factors.[10] Emphasis is given on maintaining celibacy for first three days of menstruation; as the child conceived on these days will be deformed or of less longevity.[11] The couple should engage in intercourse after purification through Vamana, Virechana, and Basti and should be brought to normalcy by prescribed diet. [12] They should perform Putresti yagna.[13],[14] Ritukala is considered to be the best period for conception starting from 4th day of menstruation till 12th day. The Progeny conceived during this period will be with full body parts and with longevity. Selected days during Ritukala for achieving progeny of desired sex is described along with the hymn to be recited during intercourse.[15], [16]

Pumsavana Samskara should be administered immediately after conception before completion of 2 months of pregnancy.[17] Specific regimen is described to get dark or fair complexioned son.[18] The psychic temperament of progeny is influenced by parents psychic dispositions. Diet, conduct and emotions have effect on personality of offspring. The female should

practice similar behavior in terms of faith, hearing etc. during pregnancy as she wishes to be the nature of the child.[19] The do's and don't's mentioned under Garbhini Paricharya should be followed accordingly. Dauhrida should be fulfilled as specific longings during pregnancy also determine the character of offspring. [20]

By adopting these simple methods and following the rule, restrictions and specific regimen, one can procure a desirable, healthy, intelligent, beautiful progeny with strength, vigour and longevity. Today in the 21st century modern world, artificial techniques of conception like IVF (In Vitro Fertilization -Test tube baby) and other revolutionary diagnostic techniques like Pre implantation genetic diagnosis (PGD) have led to tremendous interest in 'Designer babies' where one can induce desirable traits in the offspring by selecting and altering genes. But these techniques are costly and only rich and upper class can afford this. Moreover long term effects of such 'Designer babies' are still unknown.

Ayurveda gives natural, scientific and simplified methods of obtaining a desirable progeny. These practices are being adopted by many Vaidyas under the name of 'Garbha Samskara' and it is getting popularized in other countries also. Yet, it is a need of present era to scientifically evaluate the effect of these procedures and to modify them in such a way that it can be implemented easily in routine. Ayurveda believes in a planned conception and to achieve this in today's fast world requires a lot of patience and firm determination.

These natural methods are practiced since ages under tradition and are getting popularized world wide. More scientific evaluation and researches on the same can pave a way for 'Ayurvedic Designer babies' which will be more simplified, natural and legally and ethically acceptable.

References

1. Designer Babies: Ethical Considerations - Nicholas Agar - An ActionBioscience.org original article.

2. Geoffrey Sher, Virginia Marriage Davis, Jean Stoess : In Vitro Fertilization: The A.R.T. of Making Babies, Facts on File: 1998

3.   Molina et al. Preimplantation Genetic Diagnosis, http://emedicine.medscape.com/article/273415-overview

4. Silver, Lee M. (1998). Remaking Eden: Cloning and Beyond in a Brave New World. Harper Perennial. ISBN 0-380-79243-5.

5. The Need to Regulate "Designer Babies" http://www.scientificamerican.com/article.cfm?id=regulate-designer-babies

6. "Pre-implantation Genetic Diagnosis (PGD)". Reproductive Health Technologies Project.

7. Rebecca TaylorWorld's First Genetically-Modified Babies Born, Or Were They? London, England | LifeNews.com | Dec. 2012

8. Ashtanga Hridayam – Translated by Prof. K. R. Srikantha Murthy, Varanasi, Chowkhambha Krishnadas Academy, Edition 7,2010 pp – 365

9. Charaka Samhita, Ayurved Dipika Commentary, Yadavji Trikamji Acharya, Editor, Varanasi, Chaukhambha Sanskrit Sansthana: Sharirsthana 2/6:2001

10. Ibidem Charaka Samhita (9), Sharirsthana 8/6:2001 pp-341

11. . Ibidem Charaka Samhita (9),Sharirsthana 8/5:2001; pp-340

12. Ibidem Charaka Samhita (9),Sharirsthana 8/4:2001; pp-340

13. Kashyap Samhita, P.V. Tiwari, Editor, Varanasi, Chaukhambha Vishvabharti: Sharirsthana Sharirsthana 5/8;2002, pp-138

14. Ibidem Charaka Samhita (9), Sharirsthana 8/10: 2001, pp-341

15. .Ibidem Charaka Samhita (9), Sharirsthana 8/5: 2001, pp-341

16. Sushruta Samhita, NibandaSangraha Vyakhya, Acharya Priyavart Sharma, Editor, Varanasi, Chaukhambha Orientalia: Sharirsthana 2/29: 2007; pp-346

17. Ibidem Charaka Samhita Sharirsthana 8/19 Chakrapani commentary

18. Ibidem Charaka Samhita (9), Sharirsthana 8/9: 2001, pp-341

19. Ibidem Sushruta Samhita (16), Sharirsthana 2/46:2007; pp - 350

20. Ibidem Sushruta Samhita (16), Sharirsthana 3/15

RELIGIOUS AND HISTORICAL PERSPECTIVES IN THE CONTEXT OF NEGOTIATIONS BETWEEN LOCAL CULTURE, HINDUISM AND BALINESE IDENTITY OUTSIDE BALI ISLAND, INDONESIA

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Abstract. Bali is strongly related to the concept of Hinduism or Indic culture, since most of its culture and civilization are characterized by the influences of Hinduism which is thought to have spread throughout the Indonesian archipelago at the beginning of the First Century, C E. Just when it burgeoned outside Bali is still unclear as are what kinds of challenges the people faced in the context of integration in the modern Indonesian times. It is commonly said that Hinduism not only strengthens the Balinese culture but also other cultures outside Bali, in certain parts of the Indonesian archipelago, especially Sulawesi, Kalimantan and Sumatra. However, this does not mean that there were no other cultures embedded in the long process of their local histories prior to the arrival of the Balinese migrants in these regions.

Therefore, in order to understand this process, it is crucial to be cognizant of the historical and migration processes of how Hinduism or Indic culture have strengthened the local culture in the Indonesian archipelago, where many matters in relation to the trans-migration policies in the modern Indonesia have played a dominant role.

There are some questions that need to be addressed in this paper: Firstly, how can we understand the influence of Hinduism outside Bali Island? Secondly, what kinds of issues do the people have to face in relation to aspects of integration?and Thirdly, what kinds of policies need to be implemented in order to strengthen Hinduism in accordance with the concept of multiculturalism in the Indonesian archipelago? Through answering these questions, it is expected to have a better understanding of the issues of social, cultural, economic and political identities which are related to the strengthening of the multicultural society in the Indonesian archipelago. As well as, by looking at the resulting analysis, to have a better grasp of the dynamics of Balinese Hinduism in Makassar in the eastern part of Indonesia and in Jakarta in the western part of Indonesia.

Keywords: Local culture, the Balinese, Hinduism, multicultural society and Indonesian archipelago

Introduction

Talking about Hinduism in Indonesia actually means talking about Bali Island with its richness of nature and culture. Bali has a fertile soil and the Balinese work in the agricultural

sector, particularly in the wet rice fields. It is significant to mention that the Balinese really appreciate their environment based on the Hindu or Indic lessons coming from India. However, not only to Bali, since Hinduism has also spread to the mainland and insular Southeast Asia. In the mainland of Southeast Asia, we can see some archeological remains in Funan, considered the first Hindu kingdom and Champa, the second Hindu kingdom.

Those religious and cultural influences seem to have strengthened the local cultures but until now, there are works that mostly focus on the issues of Hinduism in Bali, since Bali is well known as the latest part of the Hindu mosaic in Southeast Asia. We do not really know much about what really happened in the Hinduism that also played a significant role in the context of the multicultural society in the Indonesian archipelago, particularly from the perspective of outside Bali Island. For a long time, before the arrival of Hinduism outside Bali, there have been many local cultures that played a dominant role in their societies and the coming of the Hindu or Indic culture seems to have strengthened these local cultures. In other words, the local cultures   adopted and adapted the Indian or Hindu values in order to use them in strengthening their local cultures.

Therefore, in order to understand this significant issue in the context of our understanding of multicultural societies in Indonesia in particular and Southeast Asia in general, it is important to elaborate further the migration and historical processes that have existed for a long time in Indonesian history. In accordance with this issue, there are some pertinent questions that need to be addressed in this paper: Firstly, how can we understand the influences of Hinduism or Indic lessons outside Bali Island, in which the Balinese have played a major role? Secondly, what kinds of issues have the Balinese and local people had to face in relation to the issues of Indonesian national integration? and Thirdly, what kinds of policies need to be implemented in order to maintain and preserve the Hindu or Indic lessons regarding the concept of a multicultural society in the Indonesian archipelago? Through these questions, it is expected to have a better understanding of the issues of social, cultural, economic and political identities, which are related to the strengthening of the multicultural society in Indonesia.

Theoretical Framework

According to the national census of 2010 there were one million Indonesians not classified by their religion. It seems that some of them were ancestor worshippers. Therefore, it is not easy to know the exact number of followers of the six state approved religions in the present day Indonesia.   https://tumoutounews.com/2017/11/08/jumlah-penganut-agama-di-indonesia-tiap-provinsi/. It can, however, be said that Hinduism has already spread in the Indonesian archipelago; not dominating the previous local culture but apparently strengthening its identity. In certain regions, for instance Tengger, Kaharingan and Lumajang, the local cultures are still viable with some claiming to be followers of Hinduism. This is not easy for them, though the local people try to maintain their local wisdom, they need also to be modernized. This is a big debate since Hinduism that has been practised in Indonesia has more or less been a part of Indian, Balinese or other local cultures. It means that some people believe that the Hinduism that they want to implement is based on local Balinese culture. From the above analysis, it can be concluded that the eruption of Gunung Agung, in 1963, strongly affected some issues linked to cultural and demographic perspectives. This can be understood in terms of social, cultural, economic and political aspects regarding the

emergence of a multicultural society in Indonesia.

However, until the present time, there is not much information regarding the dynamics of the Hinduism in Lampung in particular, and in Indonesia in general, although the involvement of the Balinese migrants in Lampung has played a significant role. Though they are different in terms of cultural identities, improving the local culture is very significant in order to be able to strengthen the national Indonesian culture. The aim is to minimize social, cultural, economic and political conflicts not only at present but also in the future.

In addition to this, the understanding of Hinduism in a region seems to be important for the local and national governments in formulating any guidance for a better life not only at this time, but also in the near future. From this perspective, it is recognized that having wise behavior is conducive to having a better understanding of how to manage the dynamics of the different ethnic groups based on ethnicity, religion, tradition, language and habits to be able to live side by side, based on tolerance between one group and another group in the context of unity and diversity based on Pancasila.

Until the present day, there is unclear argument whether the Toraja are included in the Hindu religion or not, though in some cases there are certin arguments that mention that they are the followers of Hinduism in Sulawesi. This can be seen in how the ethnic Toraja have some similarities regarding the concept of divinity (ancestor worship) and the concept of a soul in the body of every person. Based on these concepts it can be roughly said that there are cultural identities embedded in the Toraja ethnic group (Dik Roth 2004: 100-183).

The determination of cultural identities is significant in order to be able to analyse the local culture in certain regions considered to have Hindu historical sites. Therefore, this concept is important for a better understanding of how to understand Hindu identity not based on the Balinese culture but originating from the local culture itself in other parts of the Indonesian archipelago in particular and in Southeast Asia in general.

Hinduism outside Bali: Sulawesi and Jakarta

Based on the archaeological and historical evidence, Hinduism had developed in Kutai in East Kalimantan in the 4th century. Kutai is known as the first Hindu kingdom in the Indonesian archipelago, while Tarumanegara in the western part of Java, is known as the second Hindu kingdom in Indonesia. Later on, Hindu kingdoms developed in Central Java and then in East Java. It is important to note that in the 4th century, there were not so many stories about a Hindu kingdom in East Kalimantan. However, it is argued that though Hinduism had lost its important role over a long time, in fact, there are some arguments that the local people in the Dayak Kaharingan are related to Hinduism followers. The same is also true for the Toraja ethnic group in South Sulawesi and also for the small cases in the Kei islands in the Moluccas, the Batupahat area in Sumbawa and the Baduy and the Tengger in the western and eastern parts of Java.

In the context of modern and postmodern Hinduism, how can we understand these long historical processes? So, it is important to look at the religious dynamics of the Hindu religion particularly after the Indonesian independence, when the process of Hinduisation or Indianisation continued and developed very well. This cannot, of course, be separated from the previous historical processes, when during the Dutch colonial rule the Government had

practised what was called the Onderneming or plantation program especially in the eastern part of Sumatra. Through this program it is argued that there were increasing movements of people from one region to other regions in the Indonesian archipelago. In addition to this, it is noted that there were some Javanese and other ethnic groups, such as the Madurese and the Balinese, who migrated to Sumatra which was then strongly controlled by the Dutch government.

From this picture, it is clear that the Javanese and other ethnic groups knew very well about the condition of the Island of Sumatra for the future programs. Accordingly, after the Indonesian independence had been announced on August 17, 1945, there were some social, economic, cultural and political problems that needed to be solved in accordance with the possibilities of mitigating any issues due to the eruption of the highest mountain in Bali, the Gunung Agung, in 1963. The events after the eruption are considered to be a starting point in order to be able to explain how and to what extent the historical and migration processes of the Balinese outside the Island of Bali such as to Sumatra and Sulawesi, were effective.

TABLE 1: Total number of religious adherents in Indonesia

JUMLAH PENDUDUK BERDASARKAN AGAMA DI INDONESIA					
PROVINSI	**AGAMA**				
	ISLAM	KRISTEN	KATOLIK	HINDU	BUDHA
Aceh	4.413.244	50.309	3.315	136	7.062
Sumatera Utara	8.579.830	3.509.700	516.037	14.644	303.548
Sumatera Barat	4.721.924	69.253	40.428	234	3.419
Riau	4.872.873	484.895	44.183	1.076	114.332
Jambi	2.950.195	82.311	13.25	582	30.014
Sumatera Selatan	7.218.951	72.235	42.436	39.206	59.655
Bengkulu	1.669.081	28.724	6.364	3.727	2.173
Lampung	7.264.783	115.255	69.014	113.512	24.122
Kep Bangka Belitung	1.088.791	22.053	14.738	1.040	51.882
Kep Riau	1.332.201	187.576	38.252	1.541	111.73
DKI Jakarta	8.200.796	724.232	303.295	20.364	317.527
Jawa Barat	41.763.592	779.272	250.875	19.481	93.551
Jawa Tengah	31.328.341	572.517	317.919	17.448	53.009
D I Yogyakarta	3.179.129	94.268	165.749	5.257	3.542
Jawa Timur	36.113.396	638.467	234.204	112.177	60.76
Banten	10.065.783	268.89	115.865	8.189	131.222
Bali	520.244	64.454	31.397	3.247.283	21.156
Nusa Tenggara Barat	4.341.284	13.862	8.894	118.083	14.625
Nusa Tenggara Timur	423.925	1.627.157	2.535.937	5.21	318
Kalimantan Barat	2.603.318	500.254	1.008.368	2.708	237.741
Kalimantan Tengah	1.643.715	353.353	58.279	11.149	2.301
Kalimantan Selatan	3.505.846	47.974	16.045	16.064	11.675
Kalimantan Timur	3.033.705	337.38	138.629	7.657	16.356
Sulawesi Utara	701.699	1.444.141	99.98	13.133	3.076
Sulawesi Tengah	2.047.959	447.475	21.638	99.579	3.951
Sulawesi Selatan	7.200.938	612.751	124.255	58.393	19.867
Sulawesi Tenggara	2.126.126	41.131	12.88	45.441	978
Gorontalo	1.017.396	16.559	761	3.612	934
Sulawesi Barat	957.735	164.667	11.871	16.042	326
Maluku	776.13	634.841	103.629	5.669	259
Maluku Utara	771.11	258.471	5.378	200	90
Papua Barat	292.026	408.841	53.463	859	601
Papua	450.096	1.855.245	500.545	2.42	1.452
Indonesia	**207.176.162**	**16.528.513**	**6.907.873**	**4.012.116**	**1.703.254**

Source: https://tumoutounews.com/2017/11/08/jumlah-penganut-agama-di-indonesia-tiap-provinsi/

These historical and migration processes strengthened the existence of a multicultural society in the Indonesian archipelago. There are some issues that need to be analyzed regarding how the Balinese, as a major group of Hinduism followers, faced and anticipated issues in accordance with the concept of Baliology and Globalization.

It is significant to mention that the majority of the Balinese who migrated, strengthened the identity of Hinduism by displaying, on the one side, some symbols of the Balinese culture and on the other side, other local cultures. In this case, it can be said that there was a negotiation between the Balinese identities and the local cultural identities, in which the idea of harmony was most important. This could be a significant issue in how the present Hinduism in the modern and even in the postmodern Indonesia plays a major role in the context of the nation-state building.

Unlike in Java, the relationship between the Balinese and the Makassarese is not so strong, despite the historical relationship that connected them over a long time of history. As we know, in some parts, the people of Makassar, South Sulawesi, like the Buginese, played a significant role in the context of the traditional Balinese kingdoms, as soldiers who helped those Balinese kingdoms in South Bali. The close social and cultural relationship between the Javanese and the Balinese can be seen in the Hindu Javanese kingdom in Java that related with the Hindu Balinese kingdoms in the past. These social and cultural relationships still exist until the present. Indeed, in some parts, it can be said that the religious beliefs between the people, as we can see in the Toraja case, seem to have a similarity with the Bali Hindu. But, how can we explain the relationship between the Balinese and the people of Toraja in Sulawesi?

There are very limited historical sources about Hinduism in South Sulawesi. This is different in comparison with Kalimantan, for instance, where there was the first Hindu Kingdom, called Kutai. Therefore, in comparison, in South Sulawesi, it seems there are very limited sources on Hinduism in the region. There have been arguments related to certain sites that Hinduism was already established in certain regions before Islamization and Christianization took place. That is in relation to certain indigenous communities in the mountains. However, the studies on this issue need to be carried out more comprehensively. There are some arguments about the similarities in the ancestoral worship in certain communities or ethnic groups such as in Tengger in East Java, Baduy in West Java and Toraja in South Sulawesi as well. However, it needs further research to know to what extent the understanding of Hinduism existed in those areas.

Hinduism developed in West Java starting from the Tarumanegera Hindu kingdom which is considered the second Hindu Kingdom, after Kutai, in East Kalimantan. However, there is limited knowledge regarding the development of Jakarta in the later period. At least, it would be significant to know the extent of the archaeological remains regarding the pre historic, classical Javanese history and modern Javanese history periods and the arrival of the Dutch when the Dutch brought Balinese to Jakarta as slaves.

In addition to this, there is limited information regarding the period since the Indonesian Independence when there were many Balinese working in the government bureaucracy and after the period, the Hindu religion was acknowledged as a formal religion in Indonesia beside the other formal religions: Islam, Christianity, Catholicism, Buddhism and Confucianism. At that time, there were also many Balinese men working as soldiers, policemen and in other

security positions. Due to distance from their home, it was perceived as a must to have a religious institution that could improve their spirits and religious beliefs and also protect them from any other threats in Jakarta. This is very significant in understanding the emergence of the multicultural society in Jakarta in particular and in Indonesia in general.

Like other religions in Indonesia, Hinduism has developed over a long time. The historical and migration processes have strongly contributed to the emergence of a multicultural society in Indonesia. The characteristics of a multicultural society have their social and cultural capital in contributing to a harmonious and peaceful life in Indonesia based on the concept of unity in diversity. Therefore, understanding the concept of a harmonious life in the context of Hinduism is essential where there is a change from monoculture to multiculture. This concept is very significant in terms of how Hinduism can cope with the various and different ethnicities and identities based on professions, areas of origin, political interests and the like, in accordance with an archipelagic state.

However, in accordance with the idea of forming a Hindu Nusantara or Indonesian Hinduism, this needs to be discussed in the context of practical issues in the Indonesian communities. It is important in relation of how to anticipate conflicts that have emerged in Bali and in other areas of Indonesia. The emergence of Hindu institutions outside Bali for instance, as we can see in Sumatra and Sulawesi, was due to the eruption of the Agung volcano in 1963. Through the transmigration programs, there are many Hindu enclaves in certain regions like Lampung (South Sumatra) and Palu, Kendari, and Manado in Sulawesi. The development of Hinduism in those regions is different if compared to the Hinduism in Jakarta. It is noted that the population in Jakarta based on religions is as follows:

TABLE 2: Religions in Jakarta

Regency/ City	Muslim	Christian	Catholic	Hindu	Buddhist	K H C	Total
Kepulauan Seribu	21,009	24	3	6	0	0	21,082
Kodya Jakarta Selatan	1,896,152	97,872	44,549	4,736	11,970	443	2,062,232
Kodya Jakarta Timur	2,416,360	190,137	57,330	4,511	12,312	603	2,693,896
Kodya Jakarta Pusat	752,465	76,784	30,195	3,481	29,035	538	902,973
Kodya Jakarta Barat	1,803,612	205,112	103,681	2,792	160,291	2,458	2,281,945
Kodya Jakarta Utara	1,311,198	154,303	67,537	4,838	103,919	1,292	1,645,659
Provinsi DKI Jakarta	8,200,796	724,232	303,295	20,364	317,527	5,334	9,607,787

Source: Badan Pusat Statistik Republik Indonesia, Data Sensus Penduduk 2010

From the above Table, it seems that the majority of the people in Jakarta who are Hindus live as follows in: Propinsi DKI Jakarta, Kodya Jakarta Selatan, Kodya Jakarta Timur, Kodya Jakarta Utara, Kodya Jakarta Pusat and Kodya Jakarta Barat. This is, of course a small number in comparison with other religious believers, for instance, Muslims in Jakarta. However, it does not mean that we discuss the majority and minority, but are talking about how the differences of ethnicities, tradition, languages can live side by side not in the context of a monocultural society, but in the context of a multicultural society. In addition to this, there is a reason why most of the Hindu population in Jakarta are there. It is due to the increasing

number of Balinese working in the government bureaucracy, such as civil servants, soldiers, police and the like. However, in the islands of Pulau Seribu, there are few Hindus with the total of only six people, while there is not a Buddhist in the region.

The Muslim communities play a major role along with others such as Protestants (Christians), Catholics, Hindus and Buddhists. This can be understood, since Jakarta is located close to the Banten province, a strong Muslim area in the region. In Jakarta there are three big Hindu temples that play a major role, Firstly, the Pura Aditya Jaya Rawamangun in East Jakarta (Suka Duka Hindu Dharma Banjar Jakarta Timur, Sekilas tentang Pura Aditya Jaya Rawamangun 2009), that has been interpreted as the Pura Desa for the God Brahma. Secondly, in Cijantung, East Jakarta, the Pura Puseh is for the God Wisnu, and Thirdly, in North Jakarta, the Pura Cilincing as the Pura Dalem for the God Shiwa. From this description, it can be said that the existence of the temples in Jakarta is considered to function as the Tri Kahyangan or the Pura Kahyangan Tiga that can integrate the Hindu followers in the Hindu communities in Jakarta. It needs to be explained that the concept of the Kahyangan Tiga is a social and cultural concept and not a political one. Therefore, these concepts are understood as cultural indicators in the context of Hinduism.

It can be understood that the Balinese, the Javanese and other ethnic groups who are Hindu will be able to appreciate the cultural concepts that can be understood as a pattern for the Hindu communities outside Bali. Practically, the ritual and Hindu religious ceremonies are often conducted particularly in accordance with the Hindu holydays such as the Galungan, the Kuningan, the Saraswathi and the like. Most people visit those temples from morning to night to pray.

One book Mengenal Pura Mustika Dharma Katha (Sejarah Dharma Mandira Katha) describes it as follows:

In particular, today's feast of Galungan is very important since it is accompanied by the laying of the Foundation Stone of the Mustika Dharma Temple, a place of worship for us Hindus in Jakarta especially and all of Indonesia generally, with no differentiation between the members of the Armed Forces, Civilians, Public Servants, Labourers, Traders, Students including University Students, as well as others. The importance of this temple is for all Hindus without exception and is not limited to the Armed Forces, although it will be built and was formed or initiated by our Hindu brothers and sisters under the protection of the Army Special Forces Department subject to and with the permission of the Commander whom we greatly value and honour. With the laying of the Foundation Stone it is hoped that this Feast of Galungan will be a historic milestone, the first of a historic series of happiness and spiritual peace for us all and hopefully also this Mustika Dharma Temple will form the first milestone of a series of worship venues in this part of Jakarta.

"*Terutama hari raya Galungan kali ini bagi kita adalah sangat penting artinya karena dibarengi oleh Peletakan Batu Pertama dari Pura Mustika Dharma, tempat ibadah kita umat Hindu yang ada di Jakarta khususnya dan seluruh Indonesia pada umumnya, dengan tidak ada perbedaan apakah dari Anggota ABRI,orang Sipil,Pegawai, Buruh,Pedagang,Pelajar serta Mahasiswa dan lain-lainnya. Pendeknya pura ini adalah untuk seluruh umat Hindu adanya tanpa kecuali dan tidak tebatas hanya untuk ABRI saja,sekalipun ini akan dibangun dan diwujudkan atau diprakarsai oleh saudara-saudara kita dari umat Hindu yang berada di bawah naungan Puspassus, atas perkenan dan ijin komandan Puspasus yang sangat kami*

hargai dan muliakan.Dengan adanya Peletakan Batu Pertama ini mudah-mudahan Hari Raya Galungan ini merupakan tonggak sejarah pertama dari rentetan sejarah kebahagian-kebahagian dan kedamaian rohani kita semua dan mudah-mudahan pula tempat ini atau Pura Mustika Dharma kita ini akan merupakan tonggak pertama juga dari rentetan tempat-tempat Ibadah Agama Hindu di wilaya Jakarta ini."

To sum up, it can be said that by building those significant temples or Kahyangan Tiga, the Hindu communities in Jakarta have important temples to pray in and be preserved for sustainbale religious development in Jakarta in particular and in Indonesia in general.

Conclusion

It can be concluded that the Hindu communities in Jakarta consist mostly of Balinese who have formulated their cultural identities based on their cultural experiences in Bali. Therefore, in order to strengthen Hinduism in Jakarta it is important to develop not only the Balinese culture, but other local cultures as well. The Hindu communities in Jakarta need to adopt and adapt the local cultures in order to be able to strengthen the Hindu religion not only in Jakarta but also in the Indonesian archipelago.

BIBLIOGRAPHY

Bagus, I Gusti Ngurah. 2004. "The Parisada Hindu Dharma Indonesia in a Society in Transformation: The Emergence of Conflicts amidst differences and demands", in Martin Ramstedt (ed.). Hinduism in Modern Indonesia: A Minority Religion between Local, National, and Global Interests. London and New York: Routledge Curzon.

Hefner. Robert F. "Hindu Reform in an Islamizing Java: Pluralism and Peril", in Martin Ramstedt (ed.). Hinduism in Modern Indonesia: A Minority Religion between Local, National, and Global Interests. London and New York: Routledge Curzon.

_____. Mengenal Pura Mustika Dharma Mandira Katha(Sejarah Pura Mustika Dharma, unpublished.

Ramstedt, Martin. 2004. "Introduction, Negotiating Identities-Indonesian Hindus between Local, National and Global Interests", in Martin Ramstedt (ed). Hinduism in Modern Indonesia: A Minority Religion between Local, National, and Global Interests. London and New York: Routledge Curzon.

Ricklefs, M.C. 1991. A History of Modern Indonesia since c.1300, 2nd Edition. London: Macmillan.

Steenbrink, Karel. 2004. "Ethnic, National and International Loyalties of Indonesian Christians", in Martin Ramstedt (ed). Hinduism in Modern Indonesia: A Minority Religion between Local, National, and Global Interests. London and New York: Routledge Curzon.

Suka Duka Hindu Dharma Banjar Jakarta Timur. 2009. Sekilas Tentang Pura Aditya Rawamangun. Jakarta.

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CHALLENGES OF DESIGN EDUCATION IN THE INDUSTRIAL REVOLUTION 4.0 ERA

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Abstract. The progress of information and communication technology in the era of industrial revolution 4.0 has progressed very rapidly. The impact of this progress has brought changes in all areas of life. The changes experienced in the education sector are also very significant. The emergence of various sites that offer convenience in education is also not small. Education has entered the e-learning era based on information and communication technology. In addition, the emergence of various applications that facilitate learning is also not small. This provides a new challenge, especially in the scientific field of design. The emergence of various applications in the field of design has made it easy for the creation of works, but other content emerged, a community that claimed to be a designer who had clearly not met the criteria of the designer. This condition is a challenge for design education in order to have special characteristics that distinguish design higher education from design education. This study uses observational methods in the media and literature studies that have relevance to education in general and design education in particular. The purpose of this study was to provide information to all parties about design education and the challenges of design education in the era of industrial revolution 4.0. The results obtained are the need for renewal and improvement of both the curriculum and human resources in the field of design education to be able to face the progress of the time so that design as a work of creativity and thought will later be accepted by the community both locally, nationally and globally.

Keywords: Industrial Revolution 4.0, Education, Design Education, Design Education Challenges.

Background

The progress of information and communication technology in the era of industrial revolution 4.0 has been very rapid. The impact of this progress has brought changes in all areas of life. Historically, humans have experienced 4 (four) times the industrial revolution. The industrial revolution 1.0 began in 1784 with advances in the use of machinery that replaced animal and human labor. The engine used is a steam engine invented by James Watt. The impact of the discovery of this steam engine was that industrialization developed rapidly. Production of human needs can be produced more easily and mass production. The industrial 2.0 revolution began around the year 1870 marked by the use and production of iron and steel on a large

scale, the widespread use of machinery in manufacturing, greatly increasing the use of steam, the widely used telegraph machine, the use of petroleum and the early periods of electricity use (electrification) (Sodeq, 2017) . The industrial revolution 3.0 began around 1969 marked by the use of information technology and automation machines. Industrial revolution 3.0 that makes space and time closer to the emergence of various technological products. Industrial Revolution 4.0encourages automation systems in all activities. Internet technology is increasingly massive which is able to connect people around the world and become the basis for trade transactions that can be connected virtually. The wave of digitalization creates a suitable environment for the industrial revolution 4.0 (Sanawiri & Iqbal, 2018:184) .

The changes experienced in the education sector are also very significant. The emergence of various sites that offer convenience in education is also not small. Education has entered the e-learning era based on information and communication technology. One form of learning based on information and communication technology is MOOC (Massive Open Online Course). MOOC is a learning system in the form of online courses on a large scale and open with the aim to allow unlimited participation and can be accessed through the web. In addition to providing traditional text materials such as videos, reading and discussion of problems, MOOCs also provides an interactive user forum that helps in building communities for students, lecturers, and teaching assistants. MOOC is the latest development in terms of distance education (e-learning) (Anonim, 2013).

In addition, the emergence of various applications that facilitate learning is also not small. These applications make it easy for humans in designing and learning. One example that can be disclosed here is Adobe Photoshop, Adobe Illustrator and so on. This provides a new challenge in design, especially in the scientific field of design. The emergence of various applications in the field of design has made it easy for the creation of works, but on the other hand people appear to claim themselves as designers who have clearly not met the criteria of the designer. This condition is a challenge for design education in order to have special characteristics that distinguish design higher education from design education.

Research methodology

This study uses qualitative methodology using the observation method. Observation method is a method of collecting data that bases on the facts by means of direct observation in the field and texts related to the problem (Hasanah, 2017). In this study, textbooks relating to general and design education are specifically used. The purpose of this study is to provide an overview of the social phenomena that occur and provide solutions to problems.

Discussion

Before discussing design education, it must be known about the definition of the design itself. Design is the result of the process of designing an object that is carried out through certain stages and through consideration involving various parameters attached to the object of the design towards the giving of a form or form that meets the rules and values that apply at a certain time period (Widagdo, 2005:152). The scope of design as a science is specific to matters relating to design ranging from ideas, techniques to their forms (Setiawan, 2018: 6). In the design process, a designer certainly has stages .According to the architects who are members of the RIBA (Royal Institute of British Architect) in the guidebook he made said that the design process can be divided into 4 (four) namely assimilation, general

study, development, and communication (Lawson, 2015 : 36) . Assimilation is the stage of accumulation and regulation of general information and information specifically related to the problem being handled. General studies are characteristic investigative possible problems and solutions or solution tools. Development is a stage of development and modification of one or more tentative solutions isolated during stage 2. Communication is the stage of communicating one or more solutions to people inside or outside the design team.

| Assimilation | → | General studies | → | Development | → | Communication |
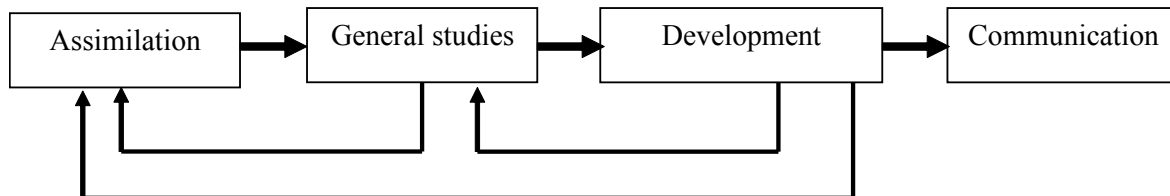
Figure 1. Stages of the Design Process According to RIBA (source: Lawson, 2015: 36)

These four stages do not have to be sequential even though logically the overall design development will run from stage 1 to stage 4. Interpretation of this stage is that a designer is expected to have the ability to have a broad view in seeing problems that occur in society. A designer is expected to not only have technical abilities but also have non-technical capabilities, namely analytical and critical thinking about the problems that occur.

Visual Communication Design as one of the field of scientific design which is an art form of conveying messages using visual language delivered through the media in the form of design that aims to inform, influence, and change the behavior of the target who sees it according to the desired goal (Setiawan, 2018:9). According to Agus Sachari, visual communication design is a profession that examines and learns with various approaches both matters relating to communication, media, images, signs and values. From the scientific aspect, the visual communication design also examines matters relating to communication and messaging, printing technology, the use of multimedia technology, and persuasion techniques in society (Sachari, 2005:9). The scope of visual communication design includes logos, advertisements, posters, book covers, comics, animation, multimedia design, typography, promotional media, caricatures, and design of environmental markers. While Widagdo revealed that the visual communication design in the modern sense is a design that results from rationality. It is based on knowledge, rational, pragmatic. The essence of the visual communication design is always dynamic, attractive, and changing (Setiawan, 2018:9). In the design process, visual communication design uses seven stages in working on a design work described below.
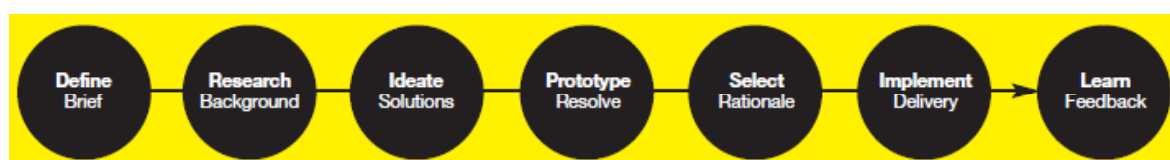
Figure 2. Seven steps in design (source: Ambrose & Harris, 2010: 12)

The stages in the picture above can be also used by other design scholars such as interior design, product design, and fashion design. The first stage (define) is the stage to get a clear picture of the problem. At this stage, the designer looks for information related both verbally and in writing to the problem. The purpose is specifically to understand the problem and meet

the design criteria that will be made based on the interpretation of the designer. Information obtained is the key to the success of the design made. The second stage (research background) is the stage of conducting qualitative and quantitative research using various approaches. The approaches taken can be structural, semiotic, historical, cultural, aesthetic, social, and multidisciplinary approaches. The choice of approach to be used depends on the designer. The purpose of the research is to get as much information as possible about the problem to get a solution to the problem. The third stage (ideate) is the stage of making various alternatives in solving problems based on the results of research that has been done. The steps taken are brainstorming, sketching, adapting the designs that have been made and conducting trials, carrying out top-down and bottom-up analytical approaches (Ambrose & Harris, 2010:20). The purpose of ideate is to test the level of deficiencies and misunderstandings that occurred at the previous stage and get clarification on aspects that are not clear. The fourth stage is making a prototype. The prototype is used to carry out technical feasibility tests and functions as a design. In addition, prototypes can also be used to test visual aspects by presenting products as they are. The purpose of making a prototype is to test certain aspects of the design solution made so that these aspects can be evaluated effectively. The prototype can also be used to convey thought ideas about the structure of the product to be made. The fifth stage is the selection of various alternatives that have been made prototypes. This selection is important to do as one of the solutions proposed for problem solving and design development. Criteria in decision making in the selection of a plan are adjusted to the objectives and fulfillment of needs and objectives in solving problems. The design that meets the criteria is usually the closest to the problem and becomes an important part of the solution to the problem. For example the selection of designs that are adjusted to the level of market needs based on age segmentation. This is important considering that each market has a different segmentation and must be adapted to the design. In addition, the budget needed in the design is also taken into consideration during the selection process. Effectiveness and efficiency in the process of selecting a product design so that further developments can be carried out. The sixth stage is implementing the final product that has been carried out at the election stage. Implementation of the final product is the most important part of a design process. The implementation of this final product can certainly be expected to fulfill the existing problem solving and can meet the tastes and expectations of the market. Usually the design team makes project management during this stage, to ensure the final design and maintain the project within the budget and time. During the implementation process, an inspection is needed to ensure the accuracy of the design made and test the functionality and visual appearance of the product. This stage ends when the product has arrived at the client. The last stage is the learning process from the design produced. The learning process is done by asking for feedback from the user about the product that is produced and seeing the effect. This is done to find out the response from the user to the resulting design. Various shortcomings that emerged from the results of the design becomes an important point to be identified and then used as a reference in the development of product ideas further.

The problem that arises is the lack of public knowledge about the field of design. The community still has different views about the field of design. In Indonesia there are two classic views on this matter, namely: 1) the assessment that design is a branch of scientific praxis art and 2) design grows into a new tree eventhough the seeds are the same (Sachari, 2005: 30). The reality is that the design field has a difference with the arts. This difference

can be seen in the table below.

Table 1. Differences in design and art (source: Purwito, 2014)

Design	Art
Have goals for designing work not to find something new but to communicate something that already exists for a purpose.	The purpose is to form a strong emotional bond between the artist and their audience.
Interpreted design communicates messages and motivates.	The art of connecting people in different ways because they are interpreted differently.
Design has an element of taste but good bad design is a matter of opinion.	Art is judged by opinions and opinions governed by taste.
The designer has the skills taught and learned.	Artists have natural abilities.
A good design where the message delivered is interpreted with each other.	Art is better if the message delivered is different from one another.

Another problem is the increasing number of design universities in Indonesia. This increase in numbers did not provide significant progress for the profession and the scientific world, especially the visual communication design. One reason is the curriculum and teaching programs that are not in accordance with the need to produce quality designers. As a result there is a mismatch between industry needs and those provided by higher education. To deal with these problems, it is necessary to look more comprehensively at the issue of the scope of higher education and the design profession, especially the visual communication design so that it can provide a more real picture and result in a solution. The need for renewal and improvement of both curriculum and human resources in the field of design education is expected to be able to deal with the progress of the time so that design as a work of creativity and thought will be accepted by the community both locally, nationally and globally.

Conclusion

The progress of information and communication technology in the era of industrial revolution 4.0 has been very rapid. The impact of this progress has brought changes in all areas of life. The changes experienced in the education sector are also very significant. The emergence of various sites that offer convenience in education is also not small. Education has entered the e-learning era based on information and communication technology. One form of learning based on information and communication technology is MOOC (Massive Open Online Course). In addition, the emergence of various applications that facilitate learning is also not small. These applications make it easy for humans in designing and learning. One example that can be disclosed here is Adobe Photoshop, Adobe Illustrator and so on. This provides a new challenge in design, especially in the scientific field of design.

Design is the result of the process of designing an object that is carried out through certain stages and through considerations involving various parameters attached to the object of the design towards the giving of the form or form that meets the rules and values that apply at a certain time period. The problem that arises is the lack of public knowledge about the field of

design. The community still has different views about the field of design. Another problem is the increasing number of design universities in Indonesia. This increase in numbers did not provide significant progress for the world of the profession and the scientific world, especially the visual communication design. One reason is the curriculum and teaching programs that are not in accordance with the need to produce quality designers. As a result there is a mismatch between industry needs and those provided by higher education. To deal with these problems, it is necessary to look more comprehensively at the issue of the scope of higher education and the design profession, especially the visual communication design so that it can provide a more real picture and result in a solution. The need for renewal and improvement of both curriculum and human resources in the field of design education is expected to be able to deal with the progress of the time so that design as a work of creativity and thought will be accepted by the community both locally, nationally and globally.

References

Ambrose, G., & Harris, P. (2010). Basics Design 08: Design Thinking. Switzerland: Ava Publishing.

Anonymous. (2013, December 26). MOOC: COLLEGE IN THE WORLD CLASS UNIVERSITY. Retrieved from gudanglinux Wordpress: https://gudanglinux. wordpress.com/2013/12/26/mooc-kuliah-di-universitas-kelas-dunia/

Hasanah, H. (2017). Observation techniques (an alternative method of collecting qualitative data in the social sciences). At-Taqaddum, 8 (1) , 21-46.

Lawson, B. (2015). How do designers think. Yogyakarta: Jalasutra.

Purwito, AE (2014, March 04). Difference between Art and Design. Retrieved from Antonius Eko Purwito Blog: http://antoniusekopurwito.blogspot.com/2014/03/perbedaan-seni-dan-desain.html

Sachari, A. (2005). Fine Culture Research Methodology. Jakarta: Erlangga.

Sanawiri, B., & Iqbal, M. (2018). Entrepreneurship. Malang: UB Press.

Setiawan, A. (2018). Design Methodology. Yogyakarta: arttex.

Sodeq. (2017, February 21). Industrial Revolution Part II - Second Revolution. Retrieved from WarungSTMJ: https://www.warungstmj.com/revolusi-industri-ii-revolusi-industri-kedua/

Widagdo. (2005). Design and Culture. Bandung: ITB Publisher.

INCLUSIVE AND INNOVATIVE LEARNING IN HIGHER EDUCATION IN INDIA

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Abstract. India has world's largest youth population about 500 million in the age bracket of 5-24 years, and also a country with the world's largest higher education system. Rising trends and the demand in the higher education sector in the country, it has witnessed a phenomenal growth in student enrolment, from 25.2 per cent in 2017 it now stands at 25.8 percent this year. Moreover, the Government of India's target Gross Enrolment Ratio (GER) of 30 percent for higher education by 2020 is expected to regenerate enthusiasm in this domain, along with this capacity building will have to go hand-in-hand with quality, inclusion and a whole new way of thinking.

As the world stands on the brink of the Fourth Industrial Revolution, powered by a wide range of new technology breakthroughs such as AI and ML .The ability to think well, and think fast, will assume greater significance than it has thus far. Our young graduates will have to live and work in a steadily more automated and disruptive world.

The desired skill sets of most occupations are likely to comprise of skills that are not yet considered crucial to the job today. As per certain estimates Cognitive Abilities, Systems skills, Complex Problem Solving, Content skills, and Social skills are … likely to be a growing part of the core skills requirements for many industries."

This move away from silos in education and towards more collaborative and innovative learning is being reflected in the slowly growing engagement with the Liberal Arts in India. India had a tradition of liberal arts education, with internationally respected centres of learning at Takshashila and Nalanda. The curriculum at these grand institutions of the ancient world included grammar, philosophy, ayurveda, surgery, politics, warfare, astronomy, commerce, music, dance and much more. The success of such educational institutions was evident in their graduates – Takshashila's alumni included the philosopher and economist, Chanakya; the father of Sanskrit grammar, Panini; and the Chinese traveler and Buddhist scholar, Hiuen Tsang.

Efforts are on to incorporate the best of content, courses and knowledge that India has to offer and unite it with the best in contemporary pedagogy in terms of experiential learning, use of technology, grass-roots immersion and mentorship. As more and more students seek international exposure, many Indian universities and colleges have entered into joint venture agreements with international universities.

This interweaving of disciplines and blending learning between the sciences and arts has also resulted

in better prospects for students. This year, the employability score has taken a big leap as compared to the last, reaching a new level of 45.60% which has a sharp hike of 5.16% over the previous year's employability score as per the India Skills Report 2018.

All of this indicates that while debates may ensue about the costs and relevance of such an education for the real world, Indian institutions are showing an innovative path forward.

Introduction

India today stands at the crossroads where it can either become the growth engine of the world, leveraging its demographic dividend, or lose out on the opportunity. The level of excellence in higher education will be a key factor in determining the role that India will play, globally, in the immediate future.

Nostalgia must have a shelf life and any discussion on the state of Indian higher education systems cannot be relegated to the memory of the sub-continent's ancient world-class universities of Nalanda and Taxila.

The President of India has recently remarked—India cannot aspire to become a sustainable superpower without becoming a knowledge superpower. India cannot fuel its imagination of becoming an industrial power-house, if it is dependent on borrowed ideas of innovation and entrepreneurship. Within the next decade it needs to produce educated/skilled people and new ideas.

Universities through their teaching efforts improve the quality of human stock; their research efforts expand the known boundaries of human knowledge and, if commercially harnessed, could lay the seeds for new companies. Scientific ideas that led to the invention of the simple electronic calculator, optic fiber, or supercomputing, in turn led to the development of entire industries of electronics, telecom or computers respectively; all of these innovations were incubated in universities (University of Pennsylvania, MIT and Illinois, respectively). Companies, like Google, Yahoo and Cisco, literally began from the university campus of Stanford. Indian universities have to lead the economy's progress by fuelling it with innovative ideas that can become commercial assets for the benefit of future generations.

However, statistics do not look promising. For instance, as per the 2016 Global Competitiveness Index, although India has improved its overall ranking, being ranked at 55 among 140 nations, in the sub-criteria of quality of higher education and training, India ranks 90 among 140 nations. In technological readiness it ranks 120 among 140 nations and, as per the index, remains one of the least digitally connected countries in the world. Official records of the Indian Patent Office regularly display that only a minority of patents filed are by Indian applicants.

Therefore, there is a need to infuse entrepreneurial objectives as a mission for universities besides their traditional roles of teaching and research. Universities need to adopt policies that integrate economic development of research as an academic function itself. Federal and state education departments and regulatory bodies involved with university governance need to recognise the potential of making universities as agents for "capitalisation of knowledge", making them an economic actor in their own right. This will enhance the ability of universities to collaborate with industry—through technology transfer, patent licensing and faculty spin-offs of university developed and patented technology. A stable and predictable IP environment

will be critical for this.

When it comes to research funding, China spends almost five-times more than India. While China spends 2.1% of its GDP in R&D, India spends 0.85%, which is even lower than Brazil and Russia. This becomes more significant because close to 75% of India's R&D costs are government sponsored. Further, where China attracts 17.5% of the global R&D spend, India receives a mere 2.7% of such funds.

Not only does the government need to beef-up its public sector R&D budget, it also needs to incentivise collaboration of business and public sector research. Given that studies have shown the complementary relationship between business and public sector R&D, policies like tax incentives and direct subsidies can be useful tools to sync the research objectives of public and private sector R&D, including better collaboration of public and private research infrastructure.

How then might we foster a culture of creativity and innovation that makes us want to "think in India?" For a start, we should overhaul our educational focus and philosophy. A sorry reality of today's education is that students find college uninteresting. "Why am I learning what I am learning?" and, "I don't remember anything I learned in college" are cheerless statements that one frequently hears in interactions with students. No wonder millions of children drop out ,forever keeping their innate creativity under lock and key. Attending classes is just not that compelling or interesting.

In The Innovator's DNA, authors Dyer, Gregersen and Christensen, state that "Innovators treat the world as a question mark." They identify the five key characteristics common to great innovative entrepreneurs in Silicon Valley:

 1)Questioning 2) Observation 3) Experimentation 4) Association, i.e. connecting of dots and 5) Networking

Now the question is whether these characteristics can be learned or imbibed ?, the answer to this is affirmative when education environment changes dramatically from a rote system to a learner-centric, active and interactive practice. New teaching-learning methods need to be introduced and instilled to trigger important shifts in thinking and behavior which can be described as following:

Learners must be encouraged to be curious and ask questions. Wemust learn to evaluate learners from not only what they write in exams but also by what questions do they ask?

Keen observation is also a key to many breakthroughs in science and medicine and in the social and business worlds. Learners must be taught and encouraged to observe deeply, to look beyond the obvious , read between the lines and find new meanings and interpretations.

Experiential learning should be initiated to engage the learners senses which extremely effective in helping to grasp, explain and retain otherwise difficult concepts.

In the era of ML and AI various knowledge sources are easily accessible ,it corrupts the mind not to reason for themselves. Model-making workshops, audio-visual presentations, internship activities and exploring the physical world will help in participative learning in a more interesting and effective manner.

One of the major goal of ay education is to instill a sense of confidence. When education encourages curiosity and creativity, wenot only train them to become independent, thinking

individuals who discover and solve problems on their own,but better citizens and strong future for our country. Peer-to-peer teaching is one of the powerful way tool in this practice.

The good news is that none of the above requires an expensive lab or a huge infrastructural changes or demands. Much of the aforementioned desired shifts in thinking and behaviour can be achieved through low-cost everyday materials. Indeed, the lack of resources is one of the greatest spurs to creativity. How much money do you need to observe and learn from nature, the source of many breakthroughs in science and technology? You are creative not because you have everything at your disposal but because you don't!

Thus the challenge at present is not in knowing what we need to do, but in knowing how, and how quickly, we can do it. Experience suggests that the intrinsic power of engagement of active, hands-on methods of learning can help to rapidly communicate and convert thousands of teachers and students to the new paradigm. Towards this end, many organisations are helping to create a unique, deeper and more meaningful educational experience — to spark curiosity, nurture creativity and instil confidences. Innovations such as mobile science labs, lab on bikes, engaging village night school programmes and 'constructivist' hands-on, experiential teacher training programs, all have made huge contributions in nurturing innovation in education in India. To bring about a new national education consciousness such ideas and methods, which are rooted in curiosity and creativity, need to scale, spread and infuse their magic across millions of classrooms.

The Lab-On-A-Bike (LOB) in India is one such popular example. As the name suggests, the Lab-On-A-Bike initiative involves a bike that carries a set of 10 Lab-In-Boxes that have low-cost tools and equipment to conduct experiments that make science concepts come alive in the classroom. They engage both the teacher and the student in collaborative learning at school level, its purpose is to get students to wonder, observe, question, think, feel, experiment -all the "characteristics" or skills that are essential to success as inventors, creators and problem-solvers. By seeing and doing, and pro-actively interacting with the teacher and peers, the child learns science concepts more comprehensively than from a boring chalk-and-talk lecture. Importantly, the indelible memory of a hands-on experience with the LOB helps her to retain this knowledge.

To keep pace with the latest developments in world education and in a bid to promote affordable education, Human Resource Development Ministry of Government of India aims to offer about 2,000 online courses within one year through 'SWAYAM' - an ingenuously developed platform.

Under SWAYAM or Study Webs of Active –Learning for Young Aspiring Minds programme professors and faculties of centrally funded institutions like IITs, IIMs, central universities will offer online courses to citizens of India.

SWAYAM is an instrument for self-actualisation which provides opportunities for a life-long learning. On this portal ,learner can choose from hundreds of courses , basically all the courses that are offered at the university or college and these shall be offered by best of the teachers or subject experts in India and elsewhere. Moreover, any student is studying in any college, can transfer the credits earned by taking these courses into their academic record .Thus, SWAYAM presents a unique educational opportunity to expand the horizons of knowledge for anyone who wants to learn something.

At present various courses are offered through this platform and in future Government plans to offer 2,000 courses in one year. About 60,000 students have already completed their courses through this affordable platform launched last year. It makes knowledge available anytime anywhere , it can be termed 'ATL - Anytime Learning'.

SWAYAM is is programme initiated by Government of India and designed to achieve the three cardinal principles of Education Policy viz., access, equity and quality. The objective of this effort is to take the best teaching learning resources to all, including the most marginalize and disadvantaged. SWAYAM seeks to bridge the digital divide for students who have remained untouched by the digital revolution and have not been able to join the mainstream of the knowledge economy.

This is done through an indigenous developed IT platform that facilitates hosting courses, taught in classrooms from 9th class till post-graduation to be accessed by anyone, anywhere at any time. All the courses are interactive, free of cost to all the residents in India. More than 1,000 specially chosen faculty and teachers from across the Country have participated in preparing these courses.

The courses hosted on SWAYAM are in 4 quadrants – (1) video lecture, (2) specially prepared reading material that can be downloaded/printed (3) self-assessment tests through tests and quizzes and (4) an online discussion forum for clearing the doubts. Steps have been taken to enrich the learning experience by using audio-video and multi-media and state of the art pedagogy / technology. In order to ensure best quality content are produced and delivered, nine National Coordinators have been appointed: They are AICTE for self-paced and international courses, NPTEL for engineering, UGC for non technical post-graduation education, CEC for under-graduate education, IIMB for management studies and NITTTR for Teacher Training programme.

Education in India is no longer just a teacher talking to a bunch of students in a classroom,with more than 370 million internet users. It is the third largest online market for education in the world. This enables people to take better advantage of the resources available online. We have more than 1 million registered schools and 18,000 higher education institutions, so its fair enough to say that India has become leader in Innovative and inclusive Higher Education.

DESIGNING A MODEL OF INNOVATIVE WAYANG WONG FOR MILLENNIAL GENERATION IN ORDER TO MEET THE 4.0 INDUSTRIAL REVOLUTION ERA IN BALI

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Abstract. This article was based on a research design that aims to develop a model of performance art of Innovative Wayang Wong for millennials in order to meet the 4.0 industrial revolution in Bali. This research was conducted due to the imbalance between assumptions and reality that occurred in the field. Supposedly, Wayang Wong, as one of the local wisdoms in the form of performing arts, is in demand by the community. However, the reality is different. Although this performance art is a local wisdom that contains many great cultural values, the reality shows that this performance art is only sought after by the elderly group. Difficulties in finding the next generation and the lack of interest of the young generation to pursue this performance make Wayang Wong in Bali increasingly marginalized and endangered. In fact, Bali is known as an island of paradise with its beautiful cultural arts. For this reason, conservation efforts need to be carried out through a strategic approach so that the Wayang Wong is sought after by the wider community; especially the younger generation as the nation's successor.

This research was conducted using research and development method. According to Borg and Gall, the research and development procedure basically consists of two main objectives which include developing the product and testing the effectiveness of the product in achieving the goal. This is carried out by integrating qualitative and quantitative methods through several stages including: application of model design, participant observation, and in-depth interviews targeting the millennial generation (teenagers and children) in Bali. The product of this research is an effective technology (an art model of Innovative Wayang Wong) which is suitable to be delivered by millennial generations (children and teenagers) in Bali, VCDs, ISBN textbooks, accredited international/ national journals, and ISBN national/ international proceedings.

Through this research, it is expected that the interest of the millennial generation (children and teenagers) in Bali will increase towards Wayang Wong performing arts. The increasing interest of the millennial generation towards Innovative Wayang Wong performing arts is expected to have an impact on the sustainability of this performance art, which indirectly will have implications for strengthening the national character of the children.

Keywords: Design, Model of Innovative Wayang Wong, Millennials, the 4.0 Industrial Revolution

Background Of The Research

Indonesia is now entering a new industrial era marked by the era of digitalization in various sectors of life. Experts call this phenomenon as the 4.0 industrial revolution era. The 4.0 industrial revolution is a change in the way humans work into automation or digitalization through innovation. Human as industry player plays an active role as organizational entities with their respective visions and innovations to race in profit. Therefore, this 4.0 industrial revolution era changes a lot of human life, especially the way they think, believe, and respond to their lives.

Changes in the pace of economic wheel movement, which were originally centralized in humans as subject, have shifted into technological automation. For this reason, they are competing to increase their potential to be able to respond to the global era of the 4.0 industrial revolution. This is because in this era of 4.0 industrial revolution, they need new literacy to analyze data as a whole and make conclusions from the data in order to communicate, collaborate, think critically, creatively and innovatively to get benefit and minimize consumption in the realm of e-commerce and digital economy which is developing in this 4.0 industrial revolution era.

Quoting McKinsey's research results in 2016, the impact of digital technology toward the 4.0 industrial revolution in the next five (5) years is that 52.6 million types of jobs will experience a shift or disappear from this earth. Based on the results of this research, everyone who still wants to exist in global competition must prepare themselves in terms of mental and skill. They must have a competitive advantage in life. To prepare skills, it requires to have good behavior (behavioral attitude), increase self-competence, and have a literacy spirit. This can be carried out by improving education (long-life education) and having the experience of working together across generations or across disciplines (experience is the best teacher).

In the era of industrial revolution 4.0 there were many shifts or changes. Human labor is replaced by automation and digitalization of machines. Human work opportunities eventually disappear a lot. This phenomenon also occurs in the realm of Balinese performing arts. An example is in performances of performing arts in the context of tourism in several hotels in Bali. Many Balinese performing arts that should be displayed intact, complete with castrated gamelan. That is, when Balinese dance is performed for tourists, the performances are displayed in great numbers only with cassettes or CDs. This phenomenon certainly shifts the role and employment opportunities of humans as musicians accompanying dances performed. That is, in this context there has been a shift in the role of humans by technology to reduce production costs to obtain greater profits.

In addition to this phenomenon, in several hotels in Bali there are now also many replacing regional performing arts that are displayed by performing arts from outside the region / West which are played by only two / three players. With reasons to minimize the cost of staging, Balinese performing arts involving 20 to 50 artists was replaced. The replacement of Balinese performing arts in several hotels in Bali certainly has an impact on reducing employment opportunities for artists in this area. The problem certainly cannot stop here. The substitution of the performing arts of this area with the kind of entertainment outside the region caused the performing arts of this area to experience deterioration in their own area.

Such a shift is a social phenomenon that seems to be caused by massification of mass media

publicity. Media, as a means of communicating symbols and values, is often used as a forum for industrialization and cultural commodification. The tendency of media orientation that is more directed towards market share than the positive value of information and education as its functional fact, makes the media like a cart for its owner. Media partners and investors create the idea that what is published can or will be part of a particular commodity. They will manipulate audience needs for a particular culture or trend so that it becomes feasible as mass consumption and new trends; therefore, they can create new market opportunities.

Max Horkheimer and Theodor W. Adorno, (1944) in their writing entitled "The Cultural Industry", stated that cultural production is characterized by several characteristics, including: standardization, massification, and commodification. Adorno reaffirmed that mass-produced culture and standards are not derived from the cultural expressions of the common people, but are merely products of industry. The cultural industry has integrated 'old' with 'familiar' into one new quality in the form of industrial products. In fact, these products were indeed created for the sake of mass consumption which in this case determined much of the origin of consumption so that it was created with strategic planning in the business calculation.

The implications of the industrial revolution are likened to two sides of coin. One side has a positive value for work productivity and efficiency of the production process. However, on the other side, it has created a competitive world of work which has led to a large number of marginalized workforce and serious problems for the economy of the community.

Referring to some literature, based on the Indonesian Language Dictionary (KBBI), the industrial revolution consists of two (2) words namely revolution and industry. Revolution means changes that occur quickly while industry can be interpreted as an effort to carry out the production process. Essentially, the industrial revolution can be interpreted as a change that takes place very quickly in the production process. In this case, the work of the production process which was originally carried out by humans is changed and replaced by machine. In addition, the goods produced have commercial added value.

In the context of the industrial revolution, the processes that occur are social and cultural changes that occur quickly which concern the basic needs with the wants of the community. The basis of this change is actually the fulfillment of wants and the fulfillment of human needs quickly and with quality. Therefore, the industrial revolution era has changed the way many people worked from manual use to automation or digitalization.

Innovation is the key to the existence of this change. Innovation is the most important factor that determines a country's competitiveness. The results of innovation achievements are determined by the extent to which a country can form a body of knowledge related to management of innovation, technology transfer, business incubation, science and technology park.

The term industrial revolution itself was introduced by Friedrich Engels and Louis-Auguste Blanqui in the mid-19th century. This industrial revolution runs from time to time. In the last decade, it is recognized to enter the fourth phase (4.0). Changes in phase to phase give articulate differences in terms of their use. The first phase (1.0) is concerned with the discovery of a machine that stresses the mechanization of production. The second phase (2.0) has moved on to the integrated mass production phase with quality control and standardization. The third phase (3.0) enters the stage of mass uniformity which relies on computerized integration.

The fourth phase (4.0) has presented digitalization and automation of the integration of the internet with manufacturing (Cooperation Agency for Organizers of Higher Education in Industrial Engineering, 2017).

Human, as industry player, is an organizational entity that makes or provides goods or services for customers. The spirit of a business is generally formed to generate profit (profit oriented) and increase prosperity for its owner (self-interest). In simple terms, the industrial vision for industry players is an institutionalized and organized vision in the company to gain as much profit as possible. Serving customers essentially serves the interests of achieving the goal itself. The implications of the 4.0 industrial work procedures target all people involved in the production process to end users.

Industry is an economic activity that processes raw materials into finished goods or semi-finished goods. The scope of the industrial scale can be seen from small, medium, large and home industries. Regardless of the industry dimension, it is a place for job creation. The effects of employment opportunities are as large as what is produced; so, it will have an impact on the growth of the economy. The establishment of an industry will produce a multi-player effect for the growth of the economy and the welfare of the surrounding community.

Industry plays an important role for economic development in all sectors of human life. It is because the industry is able to provide benefits, among others: First, the industry provides jobs where it is established. Second, the industry provides additional income not only for workers or family heads, but also for other family members. Third, in some cases, the industry is able to produce goods more efficiently or cheaper for local residents and regions (Mulyani, 2018).

The large role of industry concerns the livelihood of the people which can be called social capital. However, if social capital is managed from the perspective of capital owners who always rely on profit-oriented perspective by means of worker efficiency, it will slowly eliminate the meaning of social capital. So, in fact, the industrial revolution in any phase will lead to a social revolution that causes chaos. This is where the urgency of the synergy of the 4.0 industrial revolution requires an industrial revolution that emphasizes aspects of community empowerment.

The industrial revolution that prioritizes the value of the community's economic growth through community empowerment will be able to build harmony and synergic cooperation to develop the economy of the community concerned. Boourdeou in Adib (2012: 19) mentioned that economic capital is not capital of all capital. Economic capital can also be realized by building character building of the community concerned. By building character, community empowerment will realize economic capital that is able to flow within the social structure; therefore, it can be used as a basis to move the economy towards the usefulness of the life of the community.

It is the same case with the use of the performing art of Wayang Wong which recently began to be marginalized in terms of social and economic capital for the people in the era of the 4.0 industrial revolution in Bali. This research was conducted due to the imbalance between assumptions and reality that occurred in the field. Supposedly, Wayang Wong, as one of the local wisdoms, is in demand by the community. However, the reality is different. Although this performance art is a local wisdom that contains many great cultural values, the

reality shows that this performance art is only sought after by the elderly group. Difficulties in finding the next generation and the lack of interest of the young generation to pursue this performance make Wayang Wong in Bali increasingly marginalized and endangered. In fact, Bali is an island of paradise (Vickers, 1989) and is a tourist destination that relies on cultural arts as a tourism attraction. For this reason, conservation efforts need to be carried out through a strategic approach so that the Wayang Wong is sought after by the wider community; especially the younger generation as the nation's successor.

Wayang Wong is a traditional Balinese performing art which is presented in the form of a drama (Soedarsono, 2000). Wayang Wong comes from the words Wayang and Wong (Rusliana, 2002). Wayang can be interpreted as icons or figures that were initially displayed using leather wayang made from carved cow leather. The wayang form is adapted to the character presented in the performance; i.e. the character of Ramayana. Wayang Kulit performance is accompanied by the gamelan gender Wayang. Over time, new performing art inspired by the Wayang Kulit emerges, which is called Wayang Wong performance because the character and musical accompaniment of the performance are the same as the Wayang Kulit performance; the difference is only that the wayang is played by human.

The Wayang Wong performance featuring the character of Ramayana is presented in the form of a drama accompanied by gamelan batel (Manik Suryani, 2017). Generally, the dancers of Wayang Wong performance are adults/elder people only. They dance using a mask while having a dialogue using Kawi Language which is translated by panakawan figures named Sangut, Delem, Merdah and Tualen. The difficulty of the language material and the dialogue used in the performing arts have made Wayang Wong which contained such noble values increasingly marginalized. The lack of interest of the community to become performers causes this type of performance to only be able to be performed by certain groups such as adults/elder people in the context of ceremonies. To keep Wayang Wong performance sustainable, local people are forced to oblige their citizens to perform this performing art in every ritual ceremony that they carry out every six months or even once a year in their area. Yet, the audience is just elder people.

In Bali, the performing art of Wayang Wong is developing among other in North Bali including Tejakula Village and Anturan Village of Buleleng Regency. Meanwhile, in South Bali, it is developing among others in Tunjuk Village of Tabanan Regency, Tonja Village of Denpasar, and Tanjung Benoa Village of Badung Regency.

The model of Innovative Wayang Wong performance will be developed throughout Bali by targeting dance studios in the area. The development of this performance art model is a strategic step to preserve local cultural arts while strengthening national character in this global era. Preservation of local arts will be more effective if it empowers the community by involving young people in all aspects of activities; activities that are directly related to Wayang Wong performing art and the process of organizing performance. In addition, through the development of this art model of innovative Wayang Wong, Bali, as a tourist destination, can empower local communities and can develop all aspects of life. As a tourist destination, Bali is known for its cultural tourism (Picard, 2006). The selection of Wayang Wong art as a cultural manifestation is not spared because the performing arts that contain these precious values have never been touched by millennials (children and teenagers). By presenting this performance art, the players and the audience/tourists will be able to grasp

the meaning and philosophy of the character that is universally performed.

The strategic position of Bali region as a tourist destination opens up opportunities for tourism development (Erawan, 1989). One of the developments in tourism is to open up opportunities for millennial generations to conduct tourism governance in Wayang Wong Art that is synergistic between various parties; the community and the government. The application of synergistic governance is needed in sustainable tourism management (Shaw, 1997). Synergic governance will enable the optimal process of community empowerment in an effort to improve welfare. Development is a form of social change (Lauer, 1989). Since this innovative Wayang Wong performance art is in the form of traditional art that already exists, the local community does not have to make major changes.

The local community also feels familiar with Wayang Wong art because they already have this type of performing arts. In addition to active participation, Wayang Wong art requires public appreciation for its sustainability (Putranto, 2012). However, the players (children and teenagers) need to be equipped with skills about it; so that they and the audience/tourists get entertained with it, get insight and understand the values of life through the performance of this innovative Wayang Wong art. The most important thing is how children and teenagers, as players of the performance, enjoy this benevolent performance. Thus, the impact from the cultural side will be extended to the economic side that will generate profits in the area through local art and culture media. The application of the innovative Wayang Wong art model in the millennial generation (children and teenagers) is a strategic step to preserve cultural arts and strengthen national character in this global era. The problem is: How to apply the art model of innovative Wayang Wong performance to the current millennial generation? How is the suitable form of Innovative Wayang Wong to be applied to these children? What are the implications of the performance model for them in this global era?

Literature Review

Ni Nyoman Manik Suryani in the report of her community service that she did in 2017 found that the Wayang Wong performance is now almost extinct because of the difficulty of finding dancers as the next generation of the performing arts. She mentioned that Wayang Wong performance is commonly only danced by certain groups; i.e. adults/elder people only. In fact, this performing art is needed by the local community as a means of ceremony for the Yadnya God in the temple.

Suteja in his research entitled Revitalizing Wayang Wong Dramatari in Bualu Village to Encourage Community Art Creativity and Creative Economic Growth (2016), innovated at the Wayang Wong Dramatari performance in the Tanjung Benoa area by targeting arts groups in the area to support tourism and empower local communities . Theoretically, the material object of the research conducted by Suteja is indeed the same as this research, namely the Wayang Wong. But the objectives, formal objects, objectives, subjects, approaches, methods, time and location of the two studies are different. The research conducted by Suteja produced an output in the form of a performance of Wayang Wong Dramatari brought by adult dancers to support tourism in Tanjung Benoa Village. Unlike the case with research targeting dance studios in Bali this resulted in an innovative Wayang Wong Performing Arts which was delivered by dancers of children and adolescents for character strengthening, and

their empowerment through Wayang Wong Performing Arts Innovation in order to address the industrial revolution era which is currently developing.

Ruastiti (2010), in her book entitled "Balinese Performing Arts in Tourism Packaging", stated that Balinese people are now developing their arts as a tourist attraction. The development of the tourism industry in Bali has an impact on the performing arts of this area. Many people present their performing arts as a tourism performing arts in order to obtain financial income for the players and the art groups. It includes the group of Wayang Wong performing arts which was once packaged into a tourism performing arts.

Redi Damarjati Putranto (2012), in his thesis entitled "Surakarta Community Appreciation Against Wayang Orang Performing Arts at Sri Wedari", mentioned that the community's appreciation of the performance of Wayang Orang culture in the Wayang Orang Sriwedari Surakarta Building was quite large. It can be seen from the similarity of opinion on the indicators of interest, pleasure, attention, and benefit; however, it has differences of opinion on understanding and also its participation. Regarding this research that applied interactive analysis technique, Miles & Huberman revealed that the influence of public appreciation increased towards the performance of Wayang Orang art in the Sriwedari Wayang Orang Surakarta Building when the performance was presented in accordance with current tastes.

Soedarsono (1990), in his book entitled "Wayang Wong: The State Ritual Dance Drama in the Court of Yogyakarta", said that Wayang Wong had never been performed outside the palace until the first quarter of the 20th century because it was considered a "heirloom". In the past, Wayang Wong was only performed on the Tratag Bangsal Kencana Stage in the palace environment at dawn. Soedarsono also mentioned that there was a very special history in the creation of Wayang Wong; therefore, the performance art was never performed outside the Surakarta palace.

Soedarsono (2000), in his book entitled "Yogyakarta-Style Wayang Wong: A Glorious and Fading Period", stated that Yogyakarta-style Wayang Wong created by Sultan Hamengku Buwana I had experienced a golden period in the early 20th century until the outbreak of World War II in 1939. The Yogyakarta-style Wayang Wong experienced glory in the reign of Sultan Hamengku Buwana VIII (1921-1939) because the Sultan himself was a dancer, dance lover, and protector of the art. It was stated that during the 18 years of his reign in the Yogyakarta Palace, Wayang Wong performances produced as many as 15 characters originating from Wiracarita Mahabharata and Ramayana. Wayang Wong performing arts was a show of totality because it includes dance, drama, literary art, music, and visual arts. Therefore, it required players who had expertise in various branches of art. Since the dancers were from the court, Wayang Wong performance at that time was referred to as the aristocratic performing arts in which the important actors in the performance were the sons of the Sultan, relatives of the Sultan, and the courtiers. Even so, ordinary people were allowed to watch under certain conditions. Wayang Wong was also referred to as a very expensive show where the performance lasts long; i.e. four days and four nights. Because of the high costs incurred, it was not perfomed every year.

Rusliana (2002), based on the results of her research entitled "Wayang Wong Priangan: Study of Traditional Dance-Drama Performances in West Java", mentioned that Wayang Wong Priangan had lived and favored the folk and Sundanese people before Indonesia's independence until the late 1960s. It was stated that up to now the Wayang Wong Priangan

performance which combines various elements of role, performance, dance, sound and music is still sustainable. It is because the presentation is performed according to the tastes of the audience. The interactive Wayang Wong performance has made the Priangan people, especially Sundanese, very happy to watch the performance. Based on the literature study that has been carried out, it is concluded that until now no research has been found that applies the model of innovative Wayang Wong performing art in the millennial generation in the context of preserving cultural arts and strengthening national character. This research is important to conduct considering that Wayang Wong performing arts that contain these great values are threatened with marginalization because the presentation is too serious and monotonous, and the use of Kawi Language is difficult to understand by the public, and so forth. Wayang Wong performing art is very strategic to be implemented in the millennial generation to strengthen the nation's character in the global era.

Research Method

This research uses research and development method. Research and development in education is a process used to develop and validate educational products (Taylor, 1984). Research & development research is applied to produce a model for the development of cultural arts (Wayang Wong) as an effort to preserve traditional arts that contain great values for strengthening national character. The model developed in this research is a descriptive procedural development model that outlines the steps that must be followed to produce a product. Tandon (1993) stated that research and development procedures basically consist of two main objectives, namely developing the product and testing the effectiveness of the product in achieving the goal. The choice of the model has characteristics that emphasize repeated trials and revisions to produce a viable product. In addition, the product analysis is detailed and oriented towards learning outcomes.

This research & development approach is a combination of quantitative and qualitative. The qualitative approach is used to develop the model, while the quantitative approach is used to measure the effectiveness of the model. The developed model is the result of the development of the potential of Indonesian cultural arts (Wayang Wong) which is also the independent variable. The independent variable is the quality of Wayang Wong's performing arts and the increase in people's interest or passion in Wayang Wong art. This research utilized an experiment with the pretest-posttest design as follows:

$$01 \ X \ 02$$

(Campbell & Stanley, 1963: 13)

Description:
X is the treatment with meaningful learning models
01 is the pretest
02 is posttest

To determine the effectiveness of the development of the Wayang Wong performing arts model, it utilizes the learning evaluation model in the perspective of the creation of new meanings which is described by the following scheme:
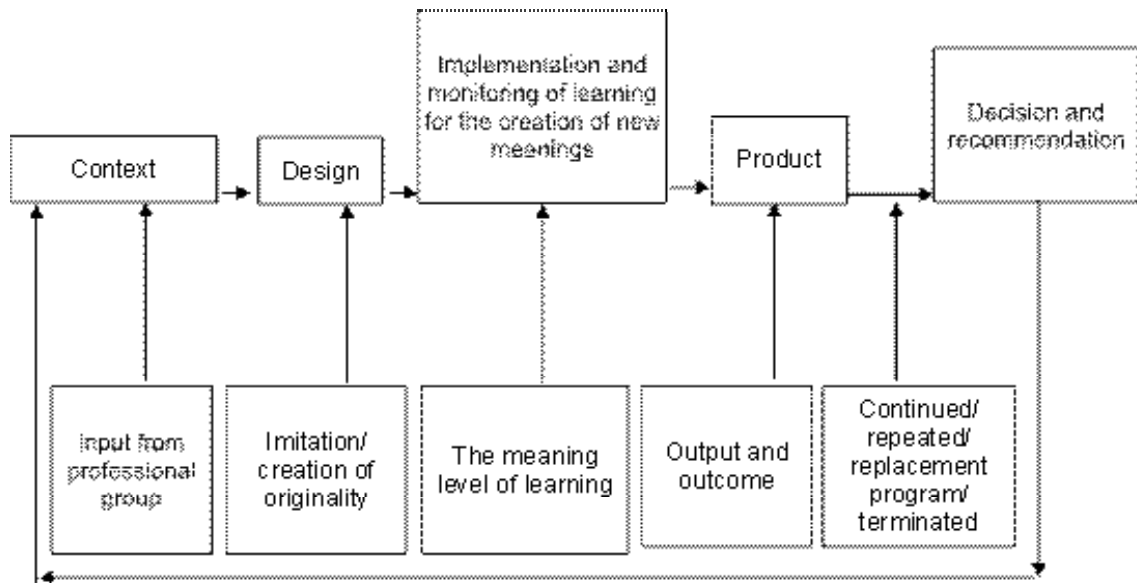
Figure 1. Model of Innovative Wayang Wong Development in the Perspective of the Creation of New Meanings (Ni Made Ruastiti, 2019)

Broadly speaking, the implementation of the model of innovative Wayang Wong performance art for the millennial generation consists of five stages, consisting of: (1) description of the context, (2) design, (3) implementation of learning, (4) measurement of products (output and outcome), and (5) determine decision or recommendation regarding the next steps/actions.

Designing An Innovative Wayang Wong Model

The model of innovative Wayang Wong performing art that will be applied to the millennial generation (children and teenagers) includes a variety of movements, choreography, appreciation from each character, play, dialogue, and musical accompaniment "gending" of the performance art.

This innovative Wayang Wong performing art features the Ramayana story entitled "Cupu Manik Astagina". It is said that Begawan Gotama was giving advice to his two sons, Arya Bang and Arya Kuning at Pesraman. During the meeting, Arya Bang and Arya Kuning asked about the problem of Cupu Manik Astagina to the Begawan. The Begawan Gotama did not know about the matter, so the Begawan asked Dewi Anjani to explain about the Cupu Manik. Dewi Anjani explained that she obtained Cupu Manik from her mother named Dewi Indradi. Out of curiosity, Begawan Gotama then called his wife Dewi Indradi. Dewi Indradi was unable to explain about the Cupu Manik.

Begawan Gotama was angry and condemned Dewi Indradi to stone. With a sense of disappointment, the Begawan asked the three children to compete (contest). Whoever can get the Cupu Manik, he or she would be the one who has the right to have it. Cupu Manik was then thrown into the forest. The three children immediately chased it. Then, the Cupu Manik thrown in the forest turned into a pond. Arya Bang and Arya Kuning immediately plunged themselves into the pond. A miracle happened to the Arya Bang and Ayra Kuning's faces because they finally turned into monkeys. Meanwhile, only Dewi Anjani's face and hands that hit by water which became hairy. Some of the animals that took part in plundering

themselves and drinking the pond water all turned into monkeys with diverse faces. Seeing the incident, Begawan Gotama was very sad and told his three children to do the tapa brata.

This innovative Wayang Wong art is presented in the form of a drama. It can be seen from the presentation, costume, makeup, and musial accompaniment of the performance. The innovative Wayang Wong art performance entitled "Cupu Manik Astagina" is presented with the structure of the performance, among others:

Act I

At Pesraman, Tualen and the people came before Arya Bang and Arya Kuning. The Bhagawan Gotama gave an advice to his two sons; Arya Bang and Arya Kuning. In this meeting, Arya Bang and Arya Kuning asked for a Cupu Manik brought by Dewi Anjani. Bhagawan Gotama was very surprised about the matter of the Cupu Manik Astagina which was asked by Arya Bang and Arya Kuning because the Bhagawan did not know about the Cupu Manik.

Act II

In the garden, the servants were chatting with Dewi Anjani. Dewi Anjani was very happy to be accompanied by the servants because she had the gem of Cupu Manik that could give whatever she wanted. Suddenly Dewi Anjani was startled by the arrival of her father Bhawagan Gotama. Bhawagan Gotama asked Dewi Anjani to explain about the Cupu Manik. Dewi Anjani explained that she obtained the Cupu Manik from her mother, Dewi Indradi. Dewi Indradi was asked by Bhagawan Gotama to explain about the gem. Bhawagan Gotama was angry because Dewi Indrati could not explain about the gem. The atmosphere was tense and Bhawagan Gotama was so angry that a fire emerged from his hands. Dewi Indradi was cursed to be a stone by Bhawagan Gotama. Indradi remained silent and then turned to stone.

Bhagawan Gotama was angry and finally threw the gemstone into the forest. Bhagawan then ordered his three children to compete (contest). Whoever can get the Cupu Manik, he or she would be the one who has the right to have it. The three children immediately chased the Cupu Manik into the forest.

Act III

In the forest, Cupu Manik, which was thrown by Bhagawan, turned into a pond. Arya Bang and Arya Kuning immediately plunged themselves into the pond to get the Cupu Manik. A strange miracle happened. Arya Bang and Arya Kuning turned out to be monkeys. Meanwhile, Dewi Anjani, who only dipped her hands and face into the water, only her face and hands turned hairy like a monkey. Some of the animals that plunged into the pond also turned into monkeys with various forms of faces. Witnessing the incident, Bhawagan Gotama was very sad and then asked that the three children meditate to restore their form as before.

The various movements of Innovative Wayang Wong performances including the basic movements of Balinese Dance include motives of pure dance movements and meaningful dance movements. Ruastiti (2010) said that the motive of pure dance movements is a variety of dance movements that do not contain meaning or definition. It means that the variety of dance movements performed is truly pure in which the designs are beautiful without containing certain symbols or meanings. The motives of pure dance movements contained in Innovative Wayang Wong performances consist of: ngegol, left and right agem, ngelikas,

nyeleog, piles, left and right seledet, nabdab gelung, nabdab pinggel, gandang-gandang walk, ngumbang, ngelung, ngotag, miles, buta ngawa sari, ngelo, and nyeleog. Meanwhile, the variety of meaningful dance movements contained in Innovative Wayang Wong performances are: dance movements that contain certain symbols or meanings; among others, the variety of movement nuding (pointing at something), ulap-ulap (glare), nadab gelung (fixing the crown), sesaputan (tidying clothes) (Ruastiti, 2005).

In addition to the variety of movements, dialogues and music, there was also an understanding of the characters from each of the characters in the Innovative Wayang Wong performing arts. The characters in this performance include Arya Bang, Arya Kuning (hard male figure), Dewi Anjani (soft female figure), Begawan Gotama (soft male figure), Dayang-Dayang (hard female figure), Ape/Monkey (hard male figure), Malen and Tualen (soft male figures), Merdah and Sangut (hard male figures). By providing the right basic knowledge and according to their age, it is expected that the application process of this innovative performing arts model can run smoothly.

Conclusion

Based on the above description, it can be concluded that the design of the Innovative Wayang Wong Performing Art Model for Millennial Generation was carried out using the research and development method. The research targeting the millennial generation, especially children and teenagers, aims to build for them a model of local wisdom-based performing arts and that is appropriate for its current audience in order to preserve Wayang Wong performing arts which are now experiencing marginalization in Bali.

Applied research is carried out by implementing the design of the model through this particular approach and method so that the resulting output is truly effective and suitable to be delivered by product users, i.e. the current millennial generation. For this reason, before the product is published, we applied an approach and then tested the effectiveness of the product as a result of this research. Product testing, revisions and improvements were carried out continuously through training, staging, and recording. Those were carried out so that the transmission method produced for the continuation of the values of the performing arts for the millennial generation is effective and in accordance with the situation and conditions of the children and teenagers. This is done by combining qualitative and quantitative methods through several stages, among others: participation observation, in-depth interviews, FGDs, model design applications, participant observation and second in-depth interviews targeting relevant parties.

The output of this research is appropriate technology, i.e. the Innovative Wayang Wong art model presented by millennial generations (children and teenagers) in Bali, VCDs, textbooks that have International Standard Book Numbers, accredited international/ national journals, and proceedings national/ international that have an International Standard Book Number. Through this innovation, Wayang Wong performing art that contains these great values of education is expected to be sustainable and to have implications for strengthening the character of the children and teenagers concerned, as the nation's next generation amidst the development of the 4.0 industrial revolution era.

The findings from the applied research results carried out by implementing the design of

the innovative Wayang Wong art model of "Cupu Manik Astagina" have findings in the form of a local-wisdom-based performing art model for millennial generation, transmission method, and continuation of cultural values for millennial generation through non-formal education. By conducting this research, it is expected that the interest of the millennial generation (children and teenagers) in Bali will increase toward Wayang Wong performing art. The increasing interest of the millennial generation toward Innovative Wayang Wong performing art is expected to have an impact on the sustainability of this performance art, which indirectly will have implications for strengthening the national character of those children.

Acknowledgment

References

Adib, Muhammad. 2012. Agen dan Struktur dalam Pandangan Piere Bourdieu. Bio Kultur, Vol 1/No.2/hal 91-110/Juli-Desember 2012.

Erawan, I N. 1989. Pariwisata dan Pembangunan Ekonomi. Denpasar, Upada Sastra.

Lauer, R H. 1989. Perspektif tentang Perubahan Sosial. Jakarta, Rineka Cipta.

Manik Suryani, N N. 2017. Pembinaan Dramatari Wayang Wong di Kelurahan Tonja, Denpasar Bali. (laporan hasil pengabdian kepada masyarakat). Denpasar, ISI Denpasar.

Max Horkheimer and Theodor W. Adorno. 1994. The CurturalIndustry: Enlightenment as mass deception. In Gunzelin Schmid Noerr (ed), Dialectic if Enlightenment: Philosophical Fragments, pp. 94-136. Transited by Edmund Jephcott. Stanford, CA: Stanford University Press, 2002. Original German version. C 1969 by S. Fishcer Verlag GmbH, Frankfurt am Main. English translation C 2002 by Board ofTrustees ofLeland Stanford Jr. Universitu. All rigts reserved. Used with the permission of Stanford University Press, www.sup.org.

Mulyani, Sri. 2018. Bicara Era Digital: Akan Ada Pergeseran Jenis Tenaga Kerja. Detiknews tanggal 03 Februari 2018.

Picard, M. 2006. Bali : Pariwisata Budaya dan Budaya Pariwisata. Jakarta : KPG (Keputusan Populer Gramedia) Bekerjasama dengan Forum Jakarta-Paris dan Ecole francaise d'Extreme-Orient.

Putranto, R D. 2012. Apresiasi Masyarakat Surakarta Terhadap Seni Pertunjukan Wayang Orang di Sri Wedari (Skripsi) Surakarta, Universitas Muhammaddyah.

Ruastiti, N M. 2005. Seni Pertunjukan Bali Dalam Kemasan Pariwisata. Denpasar, Bali Mangsi Press.

Ruastiti, N M. 2010. Seni Pertunjukan Pariwisata Bali. Yogyakarta, Kanisius.

Rusliana, I. 2002. Wayang Wong Priangan : Kajian Mengenai Pertunjukan Dramatari Tradisional Di Jawa Barat. Bandung, Kiblat.

Shaw, G dan A.M Williams. 1997. The Earthscan Reader In Sustainable Tourism. London, Earthscan Publication.

Soedarsono, RM. 2000. Wayang Wong Gaya Yogyakarta : Masa Gemilang dan Memudar. Yogyakarta, Tarawang.

Suteja, I Ketut. 1995. Revitalisasi Dramatariwayang Wong Desa Bualu Untuk Mendorong Kreativitas Seni Masyarakat Dan Pertumbuhan Ekonomi Kreatif. (laporan hasil penelitian). Denpasar: Institut Seni Indonesia (ISI) Denpasar.

Tandon, R. 1993. "Evaluasi dan Riset Partisipatoris : Berbagai Konsep dan Persoalan Pokok", dalam Walter Fernandes dan Rajesh Tandon (ed), Riset Partisipatoris Riset Pembebasan: Jakarta: PT Gramedia Pustaka Utama Bekerjasama dengan Yayasan Karti Sarana. Halaman 1-25.

Taylor, S dan Bogdan R. 1984. Introduction to Qualitative Research Methods. New York, John Wiley & Sons.

Vickers, A. 1989. Bali: A Paradise Created. Ringwood, Victoria : Penguin. (An excellent historical analysis of how Europeans set about imagining Bali).

BKSTI, 2017. BKSTI ub.ac.id /wp-content/upload/2017/10/keynote Speker Drajad Irianto. pdf.

COMBATING ENVIRONMENTAL PRECARITY: INTEGRATING CULTURE, SOCIETY AND NATURE

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Abstract. Nature is regarded as a force which manages human existence. Over the last few years natural disasters like flood, earth quakes, land-slides, species extinction etc. are disrupting the biophysical conditions that make earth a suitable place for all species. The disbalance in ecosystem on which human life depends has threatened and endangered the very existence of human life. The drastic changes in the climate urgently warrants a comprehensive global attention and demands co-ordinated collective measures at individual, societal, national and international level. The present paper explores the interface between society, culture and nature. The paper also reviews some cultural practices which Indian society followed to maintain an ecological balance in the past. The paper concludes by recommending some suggestive measures to combat environmental challenges.

Key Words: Environmental Precarity climate changes, human existence, Nature, society.

Introduction

As long as this (Nature) exists, there will always be comfort
for every sorrow…. nature brings solace in all troubles."
(Anne Frank, The Diary of a Young Girl)

Nature is an indivisible part of the existence of all forms of the world. In the last few decades the environmental problems like unstable climate, tsunami, flood, earth quakes, heavy storms, land-slides, species extinction, melting of the glaciers etc. are disrupting the biophysical conditions that make earth a suitable place for all species. The modernization, urbanization, advancement in science and technology, industrialization, mechanization, deforestation, population explosion, over-exploitation of natural resources, disbelief in ancient traditions has caused disbalance in ecosystem on which human life depends adversely affected, threatened and endangered the very existence and survival of all forms of life on earth.

The connection of humans to environment is so indispensable that avoidance of environment

directly poses challenges to the very existence of humans. Environmental crisis is perhaps the greatest crisis human civilization has ever faced because it has posed challenges on the very existence of this universe. The survival of human life on Earth is not possible without an ecological balance and pure environment.

World-wide consciousness for safe environment for human existence began only in later phase of 20th century. Since then the world has made efforts to combat environmental crisis; many policies are charted out to conserve and protect the environment; many NGOS are contributing: world level organizations have been constituted, but all these efforts are insufficient to check the increasing environmental crises. In this context, ancient wisdom in Hindu scriptures becomes rich sources which if implemented in its totality in today's world, can help in combating environmental precarity.   The growing neglect of nature must be a matter of serious concern of one and all because not only in urban areas but even in local, rural or indigenous communities ancient traditions and customs are eroding constantly and there is a great impact on the environment.

The present paper explores the interface between society, culture and nature. The paper reviews some cultural practices which Indian society followed to maintain an ecological balance in the past and attempts to explore how Indian Culture and scriptures have shown their interest in natural world and its ecology. The paper concludes by advocating that we can save the environment from drastic changes and contribute at individual, societal, national or international level by turning to ancient wisdom prevalent in Indian scriptures.

Environment and Hinduism

Human history of valuing nature is long and has many aspects- moral, religious, ethical , religious, social, divine, cosmic etc. Reverence for nature is embedded in the fundamental values of Indian Culture. Human beings and nature have mutual relationship is reinforced in our scriptures. India worshipped nature long before ecology attracted attention of the West. India has a long history and tradition of harmonious coexistence of man and Nature. The ancient Indian tradition was strongly cosmos-centric, where human beings lived as part of a system where everything was related to everything else. Nature was not the thing to be conquered but mother to be worshiped. The Indian approach to nature is very well defined by an eminent environmentalist:

 "….. *our ancestors essentially followed natural principals. Whether they were developing the science of architecture or founding villages, towns and cities, or developing farming, or weaving methods, or developing techniques for making steel, or developing Ayurveda, the science of medicine, or were formulating customs, rituals, and festivals, they never allowed themselves to be far removed from nature, or the laws of nature.*" (Banwari p.xvii)

Hinduism has a definite code of environmental ethics. According to it, humans may not consider themselves above nature, nor can they claim to rule over other forms of life. Hence, traditionally, the Hindu attitude has been respectful towards nature. A man had to recognize what powers of nature he could not control and was thus compelled to resort to prayer to win the cooperation of the winds and rains to ensure the regularity of the monsoon; for the control of earthquakes, forest fires and all significant elements of nature. Every aspect of nature is sacred for the Indic religions: forests and groves, gardens, rivers and other water bodies, plants and seeds, animals, mountains and pilgrimage centres. Listed below are five

of the best practices for the environment, according to Hindu text.

Nature is seen as divine force uniting the worlds of humans , plants and animals in Indian culture. It is believed that there is presence of God in every particle of the universe, 'kad kad me Bhagwan'. Gita says that God is everywhere: "….the super soul exists, pervading everything (Bhagwat Gita 13.14) In The Bhagavad Gita, sloka 20, Chapter 10, Lord Krishna says,

"I am the super soul,… seated in the hearts of all living entities. I am the beginning, the middle and the end of all beings".

Indian culture has greatly promoted and advocated environmentalism and has been an environmentally conscious philosophy. Nature worship is one of the most important subjects of environmental ethics of Indian culture. Since a very early period, people were quite sensitive towards saving their environment. Respect for the natural environment finds its best expressions in the cultural practices of the people. Culture functions as one of the important connecting link between nature and human beings. In this connection Indian house wives have contributed significantly to sustain the traditions and culture. Every aspect of the life of Indian house-wife is closely associated with nature. The Indian housewife begins her day by decorating her main entrance door with beautiful designs made of wheat or rice flour. This serves multiple purposes. On one side it beautifies the entrance, on the other side it supplements food for the small insects like ants and thus there is no need of any insecticide to keep them out. Indian wives worship Banyan trees and Peepal trees. These trees are considered very sacred and people were encouraged to grow them and forbidden to cut them.

Tulsi plant is another sacred plant which apart from releasing oxygen and purifying the atmosphere, is used as medicine in coughs, fevers and colds. These are unique trees which releases oxygen 24 hours. She worships and waters Tulsi (basil) plant every day. Every day Indian wives give rotis (Indian bread) to Cows and dogs and other animals. This way strengthening the Indian belief that even animals have their share on this earth. There was tradition to give food to crows and fish which is still in practice at various places.

The culture of conservation of nature dates back to the ancient Vedic Period. In terms of significance, Vedic culture is the core element and origin of Hinduism. The harmony between human beings and nature was integral to the Indian Culture. The Indian Cultural life was embodied in such a way that all its aspects existed in inter-related manner and perfect harmony with another. Human life was well coordinated with nature. Ancient people knew very well that balance in nature is necessary for the happiness of human beings. They expressed their gratitude even to the animals for their service to the humankind.

Ancient Indian scriptures have many references on conservation of environment, ecological balance, importance of plants , water natural phenomenon's, forests and other related subjects. The ancient Indian texts Ramayan, Mahabharat, The Vedas, the Upnishads, the Manusmriti, Arthasastra etc. show a great appreciation for the natural world and address the earliest concern for preservation of environment and ecological balance. These scriptures are full of hymns which celebrate the supremacy of various natural entities. These verses express deep sense of reverence to Nature which was not considered an entity to be conquered.

Kautilya's Arthasastra contains a number of sutras which express environmental related

awareness as well as concern for the plants, vegetation and animals. Kautilya mentions in Arthsastra that it is the duty of the king to protect forests, irrigation works and mines. Cutting of flowering or fruit bearing trees or shadowy trees was prohibited. Punishment and fines were levied upon those who harmed trees depending upon the type of harm caused to the trees. Arthasastra also shows great concern for animals and mentions serious punishment for those who harm animals.

Kautilya has given great importance to the conservation of the forests. There are references which instructs to conserve and preserve medicinal plants. Punishment was provisioned for cutting trees or harming animals. According to Kautilya, cutting trees or its branches is an offence and he prescribed various punishments for it:

'For cutting the shoots of trees in city parks that bear flowers or fruits or yield shade (the fine shall be) six panas, for cutting small branches twelve panas, for cutting stout branches twenty four panas, for destroying trunks the lowest fine for violence, for uprooting (the tree) the middle (fine)'. 'In the case of bushes and creepers bearing flowers or fruit or yielding shade the fines shall be half, also in the case of trees in holy places, penance groves and cremation grounds' (AS.19.-26,28)

In the Vedic age people were basically nature worshippers and were greatly concerned with environment and its conservation. They worshipped nature and its various manifestations. Hymns of the Vedas express an encompassing world view which perceives all elements of the world whether human beings, animals or nature as being part of the same spiritual power. We find many references to varied aspects of nature in the Vedic texts like the Vedas, Aranyakas, Upnishads, Samihitas etc.Verses in Vedas express a deep sense of communion of man and nature and emphasise essentiality of Forests, plants, afforestation for maintaining ecological balance.

The 'Bhumi Sukta' in Atharva Veda is the most beautiful celebration of the mother Earth as the shelter of all living and non-living beings. Earth is revered as goddess, which feeds everyone. All the forms of earth and of life on it are the children of earth. Rivers, trees, animals are attendants of the earth goddess. Even thousand years ago, our sages declared that the earth is for everyone.   Bhumisukta indicates the environmental consciousness of Indian ancient seers.

The Rigvedic hymns refer to many gods and goddesses which are identified with natural entities like sun, moon, thunder, lightning, snow, rain, water, rivers, trees etc. These natural resources have been worshipped as sources of health, wealth and prosperity.

The five elements- earth (Prithvi), air (vayu), fire (Agni), water (aapa),and space (Akash) known as Panch-maha bhuta are given great value in Indian scriptures. The harmonious coexistence of these five elements is essential for the well- being of life on earth. There are many hymns in Atharveda which describe the relationship of human beings and other forms of nature. The sun is considered the soul of the world. Fire is the other important deity of Vedas which serves the human from birth to death. Water is not only an element of purification but also the element pervading all life.

Tree worship is an integral part of Indian Culture since ancient time and there has been a long tradition of planting trees and growing them by the side of water bodies like wells and ponds. Indus- Sarasvati civilisation has many seals of that have imprints of trees. Vedas

refer to the 'cosmic tree' which was known as 'Tree of Life' and was the symbolic of power embracing the entire universe. Trees and plants were considered as living beings and to harm them in any way was regarded as a sin.

There are many references to various herbs, trees, and flowers and their significance in the four Vedas. In the ancient texts we have references of trees like kalpavṛkṣa, pārijāta, Padma (lotus) and trees like vaṭavṛkṣa (banyan), pālāśa The worship of the pipal tree (also known as Boddhi tree, aśvattha in Sanskrit, Ficus religiosa) became a folk ritual, and the pipal was called the king of trees in Brahma Purāṇa. In the course of time, many such plants and trees came to be associated with various gods and goddesses and were worshipped accordingly.

Like other Hindu scriptures Mahabharat assigns great significance to the environment and the divine energy inherent in the different constituents of the world. In the Anusasanaparvan we get a full chapter (58the one) which praises the construction of water reservoirs and planting of trees as great acts which emancipates human beings:

"*By planting trees one acquires fame in the world of men and auspicious rewards in the world hereafter.* "

"*The planter of trees is rescued in the next world by the trees he plants like children rescuing their own father.*"

"*…..all have recourse to trees as their refuge. Trees that bear flowers and fruits gratify all men. The planter of trees is rescued in the next world by the trees he plants like children rescuing their own father.*" (Mahabharat Anusasana Parva 58)

"*….. the man that is desirous of achieving his own good, should plant trees by the side of tanks and cherish them like his own children.*" (Mahabharat Anusasana Parva 58)

Pipal tree is given great significance in ancient India. There are references of Pipal tree in Panini's Ashtadhyayi (4.3.48), Kautilya's Arthsashtra (1.20) and Varahamihira's Brihatsamhita (59.5). The Vishnu Purana says that just as the Pipal tree is contained in a small seed, so is the whole universe contained in Brahmin. Rigvada considers it a symbol of cosmos (Shatapatha Brahmana IV.3.3.6) The Atharva Veda (V.4.3) refers to it as the permanent seat of the gods: Ashvatthodeva sadanah (Atharva Veda XIX. 39.6) The pipal tree was regarded as a miniature symbol of the universe.

Similarly, trees such as bael (Aegle marmelos), aśoka (Saraca asoca) sandalwood and coconut hold special significance in various religious rituals; so do dūrvā grass (Cynodon dactylon), tulsi or tulasī (Ocimum), the banana, lotus, marigold, china rose (hibiscus), and the flowers of milkweed (aak, Calotropis). Flowering trees were given special significance and reverence. Even there was provision of fines on damaging plants and trees. According to the usefulness of the several kinds of trees a fine was decided. Pradushan of any kind was critiqued and was a punishable act. ' Punishment... should be awarded to those who throw dust and muddy water on the roads... The great Rishi Charaka predicted the consequences of imbalance in Nature

"*Due to pollution of weather, several types of diseases will come up and they will ruin the country. Therefore, collect the medicinal plants before the beginning of terrible diseases and change in the nature of the earth.*" (Charak Sanihta, Vimanasthanam'. 3.2)

The Puranas had also great concern for environment, flora and fauna. There are many

references in Puranas in which plants are assigned human attributes and great sanctity. Great importance is attached to planting trees in these scriptures. Agni Purana says that the plantation of trees and creation of gardens lead to the salvation from sin. In the Padma Puran the cutting down of a green tree is considered an offence punishable in hell. Thus protection of the nature was regarded as a sacred duty.

Manusmṛti gives a distinct classification of plants and states that trees have human emotions and can experience pleasure and pain:

(Those trees) which bear fruit without flowers are called vanaspati (lords of the forest); but those which bear both flowers and fruit are called vriksha. (1.47) But the various plants with many stalks, growing from one or several roots, the different kinds of grasses, the climbing plants and the creepers spring all from seed or from slips. (1.48.)These (plants) which are surrounded by multiform Darkness, the result of their acts (in former existences), possess internal consciousness and experience pleasure and pain. (1.49.)

The whole universe together with its creatures, belongs to the God. Implicit in this thought is that no creature is superior to any other and that a human being should not have absolute power over Nature. Recognizing the presence of divine in all forms of nature, our Scriptures teaches us not to harm others.

Forests and Sacred Groves have specific significance in ancient Indian culture.The system of sacred groves was very common in ancient India. The Ramayana and the Mahabharata are replete with references to forests, rivers and mountains. Many myths, religious beliefs and stories are associated with these sacred groves. The protection of such groves was considered a pious dharma and cutting of trees was prohibited in such groves. There was a provision of serious punishment for those who damaged these groves.

Culture and environment have always been closely interlinked. India has a long tradition of conserving nature and was based on natural principles whereas modernity, science and technology, industry are western concepts based on materialistic and consumeristic way of life.

Our traditions and rituals passed down to us are the belief systems which have contributed hugely in protecting civilisation and environment. Since sanctity is attached to them, people followed them with great faith. The traditions that have paid reverence to plants, trees, animals, forests, rivers and mountains have played a significant role in protecting and conserving Environment over centuries. But it is in the modern time this belief system is broken in the name of rationality or modernity or development and the whole humanity has to pay the cost of it.

Eco organism of Indian culture is threatened by outside forces such as modernisation, industrialisation and advent of science and technology. Ecological crisis is due to the quest for worldly materialistic pursuit. Unfortunately all that was good and observed for the ecological balance in the past is discarded as irrational in the modern age in the name of modernity and development. There is no end of greed and desires. Indian culture discourages consumerism which is the main cause of straining and exhausting the natural resources due to overuse or misuse. It is sheer illusion that just by multiplying our comforts and needs, we are making your life happy.

Recommendations:

- The current strategies of economic development are so damaging to environment that our future generations will face worse environmental problems. Therefore there is an urgent need to think some strategies which consist sustainable development. In fact the whole world needs to make efforts for sustainable development which fulfil needs without exhausting the existing resources and thus not depriving the future generation of their right to avail natural resources for their survival.

- It is high time to establish Environmental ethics which each one follows within their premises whether be home, nation or the whole world. The prevention of environmental degradation must be a part of our lives. We must reduce overuse and wastage of natural resources and should adopt the simplistic life of minimalism.

- Training programme with well-designed structure should be introduced to tell people the significance of nature and also to warn them against deteriorating status of environment. People should be exposed to our dependence of nature as well as the aesthetic side of nature.

- There must be equilibrium between urban-rural set ups. Cities are made at the cost of villages. Gandhiji was against the industrialization of the villages. He said," The blood of the villages is the cement with which edifice of the cities is built." (Gandhi 1946)

- Economic development must also consider its environmental implications. As global citizens, we have common future so it is the duty of each one of us to ensure ecological balance.

- We should keep in mind that this world is for all. Therefore we should be compassionate and concerned with the lives of animals and other forms of nature. As Gandhiji warned" We are not the masters of the other forms of life. He believed that humans are the trustees of the lower animal kingdom".

- The growing neglect of nature in modern age must be a matter of serious concern of one and all because not only in urban areas but even in local, rural or indigenous communities ancient traditions and customs are eroding constantly and there is a great impact it on the environment. We must revive our old traditions which were good for our environment.

Concluding Reflection:

"*Earth provides enough to satisfy everyone's need, but not for anyone's greed.*"(Gandhi)

hroughout the human history, mankind has always placed itself in a privileged position and has prioritized human ideas, inventions, creations, victories etc, whereas the environment is given less importance. The development and progress of civilization have been marked by a profound neglect and insensitivity to the environment. And the irony is that we can't even think of human existence without the environment.

There is an urgent need to take some concrete measures to combat this problem by one and all because environment affects all. If we want to sustain life on this earth, It ought to be the top priority of one and all to address the global environmental problems by regenerating the consciousness of all stake holders in the world. It can never be managed well unless the

people closest to it are involved to improve the conditions. Nature should be revered more in the present day situations when drastic environmental crises is life-challenging. The Global warming and the drastic changes in the climate urgently warrants a comprehensive global attention and demands co-ordinated collective measures at individual, societal, national and international level.

Deteriorating Environmental conditions in 21st century have dragged the advanced and developing countries on the same line of anxiety for their survival. No nation can address environmental precarity alone. Each nation needs to come with its own environmental ethics. Moreover, environmental crisis cannot be addressed through mere verbal discussion, making policies or intellectual discourses, but concrete measures must be taken and acted upon through the cultural practices of societies only. The relationship between environment and humans is determined by the culture and if a culture is unable to bring changes, it is likely to face serious consequences.

India has a rich cultural and religious, spiritual heritage and has shown a great concern for the preservation and protection of the environment. It is well said that " Nature objects cannot speak of their own accord: they require a mediator—- a proxy, and an active subject—to draw them into articulation."(qtd.in Moore p-38) We, the people, can save the environment from drastic changes by turning to Indian ancient wisdom prevalent in the cultural practices which Indian society observed to maintain an ecological balance. It is high time that India should take a lead and retrieve ancient wisdom to save the humanity from the drastic consequences of environmental challenges. To work for the protection and conservation of environment is also synonymous to retrieve our wealth of ancient wisdom and to restore Indian culture, traditions and its manifestations in Nature.

References:

Banwari, Pancavati. Indian Approach to Environment. Shri Vinayaka Publications: Delhi. 1992. p-xvii.

Bhagwat-Gita As It Is. His Divine Grace A.C. Bhaktivedanta Swami Prabhupada. Bhaktivedanta. Book Trust: New Delhi.1996. p-532, p-656.

Chanakya Arthashastra in English and Sanskrit – PDF Download ...

https://www.patheos.com/blogs/hindu2/.../arthashastra-of-kautilya-by-r-shamasastry/

Christopher Key Chapple, and Mary Evelyn Tucker Ed's. Hinduism and Ecology: The Intersection of Earth, Sky, and Water. Oxford University Press: New Delhi .2000.

David L. Gosling. Religion and Ecology in India and Southeast Asia. Routledge: London & New York, 2001.

Dwivedi O. P and B. N. Tiwari. Environmental Crisis and Hindu Religion. Gitanjali Publishing House: Delhi, 1987.

Anne Frank - The Diary Of A Young Girl.hwp - Rhetorik.ch www.rhetorik.ch/ Aktuell/16/02_13/frank_diary.pdf

Gandhi Mahatma. Quoted by Pyarelal Nayyar in Mahatma Gandhi: The Last Phase (Volume 10), page 552 (1958)

Guha Ramchandra. Environmentalism: A Global History. Penguin: UK. 2014.

Krishna Nanditha. Hinduism and Nature. Penguin Random House: India. 2017.

Manusmriti in Sanskrit with English Translation : Free Download ...https://archive.org/ details/ManuSmriti_201601

Moore Donald S. Jake Kosek, Anand Pandian (eds.). Race, Nature, and the Politics of Difference. Duke University Press: USA . 2003. P-38.

Narayan R. and J. Kumar. Ecology and Religion: Ecological Concepts in Hinduism, Buddhism, Jainism, Islam, Christianity and Sikhism. Deep and Deep Publications: New Delhi, 2003.

Sacred-Texts: Hinduism. www.sacred-texts.com/hin/

INTERDISCIPLINARY APPROACH IN SOCIAL SCIENCES AND HUMANITIES: LIPI'S EXPERIENCES

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Abstract. Interdisciplinary research is basically a study conducted by a research team that integrates various perspectives, theories, concepts, and techniques from two or more disciplines or special knowledge. Integration between these disciplines pursues to understand and or solve certain problems ini which the solution to the problem cannot be solved only by a particular discipline or specialization of knowledge. In this perspective, interdisciplinary research has long been carried out by the Indonesian Institute of Sciences (Lembaga Ilmu Pengetahuan Indonesia, LIPI) through various existing research centers or other LIPI research programs. In this article, I will describe and explain the implementation of interdisciplinary research at LIPI and several problems that arise. In this case the analysis will be carried out at the level of the Research Center (Puslit) and the LIPI flagship Program Level.

Introduction

Research is a crucial activity in the development of science and academic efforts in solving problems. The growth and development of scientific "hard sciences" such as physics, chemistry and biology and "soft sciences" such as sociology, politics and law is a academic endeavor of academics in answering these two scientific efforts in the perspective of a certain discipline. So the results of disciplinary research were to analyze natural and social phenomena according to a discipline. In sociology, for example well-known early studies conducted by Max Weber about the spirit of capitalism, by Karl Marx about social change from capitalism to communism, by Durkheim about suicide symptoms and so on.

However, in recent years, it has been increasingly recognized that monodisciplinary research can no longer achieve breakthrough findings that result in significant theories or in the form of scientific solutions to overcome increasingly complex problems. Then, a new awareness emerged about the need to analyze natural and social phenomena as well as solving real problems scientifically through combining theories from many disciplines that can simultaneously fulfill the theoretical and practical interests as well. The birth and development of Interdisciplinary Research (IR) is the fulfillment of this purpose. This IR has grown and developed in several countries, especially developed countries such as the United States and Japan. In fact they are not just theorizing but have practiced it in a collaborative

cross-disciplinary research team.

The significance of interdisciplinary research has also been considered within the Indonesian Institute of Sciences (LIPI). This is accommodated in the form of competitive research that is cross-research centre and deputy and which began in 2003 through sub-programs such as research on social conflict, competitiveness of coastal communities, advanced materials, electric cars and so on. But actually before this competitive research, interdisciplinary research has also been carried out directed to answer complex problems characterized by interdisciplinary research such as the Dani community research in Papua and the Coremap research program.

During this time, research involving many disciplines in a research team was based on the need to solve complex problems. In practice there is indeed a dominance of a certain discipline in this study, while other disciplines are as a supplement. Also, reseach grouping in competitive research tends to be concentrated in a particular deputy.

National Priority research (NP) is also in reality not as ideal as initially designed for cross-research centers and deputies because there are still ways of thinking that still see problems from one scientific field only. NP about endangered languages, for example, is almost entirely carried out by the Research Center for Society and Culture (PMB) because it was ultimately designed for basic linguistic research that was really intended to record languages that were almost extinct in eastern Indonesia in particular. While other NP studies such as research on elections, are fully carried out by the Research Center for Politics (P2P). Thus, these studies seem to be viewed from , language research is only from one research center, whereas election research is only seen from the Research Center for Politics.

To achieve a significant result in interdisciplinary research, LIPI even formed a formal non-structural institution assigned to manage interdisciplinary research, namely the International Center for Interdisciplinary and Advanced Research (ICIAR). However, this program seems not to fullly provide solutions to solve complex problems in the community. In addition, the approach taken by each sub-program has not fully implemented the interdisciplinary approach.

Interdisciplinary research is a contemporary need to answer the nation's increasingly complex and multi-dimensional problems. This paper will answer the following three important questions: (1) What research has been done by researchers at LIPI; (2) Can LIPI's research be categorized as intersisciplinary research? (3) How to manage it so far?

Definition and Variety of Research

The development of interdisciplinary research cannot be separated from the development of science. From the beginning of philosophers such as Plato, Aristotle, Ibn Fharabi, Ibn Sina, who master several branches of science, up to medieval developments which further strengthened specialization and professionalization of one discipnine in the context of the need to answer problems more deeply, for example to develop medical, chemical, legal, and historical sciences. The focus of sciences is also driven by the dynamics of the emergence of the industrial revolution process, and the process of scientification of knowledge (Klein, 1990: 21).

Specialization in the field of science based on natural sciences, social sciences, physical sciences, as well as in specialized fields, then criticized as a form of fragmentation of science

which limits the development of knowledge in a broad approach. Although the results of specific monodisciplinary studies are fruitfull, many scientists have produced their respective fields. The attraction to gain knowledge through multidisciplinarity or interdisciplinarity strengthened in the 20th century (see Klein, 1990: 22-28). For example, with the formation of the Social Science Research Council (SSRC) in 1920, the later period by Landau, Proshanky, and Ittelson (in Klein, 1990: 24) is characterized by two interdisciplinary movements, namely: (1) borrowing techniques or instruments from one field of science to be used in another field of science; and (2) scientific integration process (integrated scientific inquiry). This period is also marked by the emergence of "area studies" which presupposes a comprehensive approach to a particular research area (Klein, 1930: 25).

The term interdisciplinary research began to develop again in the 1980s, when the problems that emerged in society became increasingly complex and could no longer be solved by only using a one or two disciplinary approaches separately. But this also turns out to be driven by the needs in educational and research institutions to renew themselves in scientific development and increasingly complex problems (Klein, 1990: 36). The complexity of the problems that arise in the community then makes social scientists and natural scientists increasingly develop cooperation and collaboration to find solutions to increasingly complex problems.

Furthermore, to distinguish between monodisciplinary, multidisciplinary, interdisciplinary and transdisciplinary notions some of the illustrations in Figure 1 are expected to represent these differences. From this description it can be seen that, in "interdisciplinary" there is an effort to mix or integrate theories, methods, stages, and concepts that exist in every discipline. Whereas in "multidisciplinary" there is a form of "cooperation" between disciplines that can be mutual or mutually beneficial (see Tanya Augsburg, 2005). The transdisciplinary research is, "the application of theories, concepts, or methods across disciplines with the intent of developing overarching synthesis" (Lattuca in Repko, 2008: 15).

From grammatical understanding, interdisciplinary consists of two main words, namely "inter" and discipline ". Inter can be interpreted as: (1) different spaces, different bases that underlie certain problems, issues, or questions that are the focus of two or more disciplines; (2) actions taken based on certain views, something that arises from two or more fields of science which aims to integrate these different views; and (3) the results of an integration process, something new that arises from things that already exist, different that are separate and are outside the boundaries of scientific disciplines or that are additional to existing knowledge.

As a "relationship" between two or more disciplines, Moran interestingly, (2010: 14) for example, mentions that interdisciplinary requires a process of dialogue or interaction between two or more disciplines, but in the process is conducted by minimizing, or even rejecting forms of integration between these disciplines. This approach is referred to as the "Interdisciplinarians Generalist". Meanwhile, Newell (2007a: 245; Vess & Linkon, 2002: 89) has a different view referred to as "Integrationist interdisciplinarians", where instead it assumes that integration should be the "goal" of interdisciplinary work due to the integration process it can actually answer the challenges of the complexity of problems that cannot be treated by any single scientific discipline. The approach that is more widely used today is the second and believes that in order to obtain entirely new knowledge, or even to create

a new science, an integration process is needed from several fields of science so that new breakthroughs in the development of science could be created.

From the definitions of interdisciplinary research above, it can be concluded that the Interdisciplinary Research is a form of study (research) that sees a particular theme or topic or problem with one specific goal from various kinds of disciplines. The objectives of interdisciplinary research include (Julie Thompson Klein, 1990: 11):

- To answer complex problems

- To describe very broad issues

- To explore relationships between scientific disciplines and professional relations (between professions)

- To solve problems that arise beyond the scope of one scientific discipline

- To achieve knowledge unity, either on a limited or large scale.

Interdisciplinary research can also be useful for developing a new science, because it is integrative in answering complex problems. The integrated method to answer certain problems can be developed separately into a branch of new knowledge.

Interdisciplinary Research Implementation at LIPI

Interdisciplinary research is basically a study conducted by a research team that integrates various perspectives, theories, concepts, and techniques from two or more disciplines. Integration between these disciplines as an effort to understand and/or solve certain problems where the solution to the problem cannot be solved only by a particular discipline. In this perspective, interdisciplinary research has long been carried out by LIPI through various existing research centers or research programs of LIPI. In this section, the implementation of interdisciplinary research at LIPI and several problems that arise will be described. The analysis will be carried out at the level of the Research Center and the LIPI flagship Program Level.

Interdisciplinary Research at the Research Center Level

At the level of the research center, interdisciplinary research can be carried out because in general the resources of researchers in each research center have a variety of scientific specialties. For example, research on the poverty of fishing communities conducted by the Center for Economic Research (P2E-LIPI), members of the research team include three or four researchers with different disciplines, for example, marine, economics, environmental science, sociology. The inegration of these diverse disciplines is realized because the problems of fishing poverty cannot be understood and solved only with one perspective, economics. The interdisciplinary approach from perspectives of sociology, economics, environment is very necessary because poverty is not only an economic problem but also related to environmental conditions, culture and patterns of relations between existing communities. Likewise, in understanding the issues of decentralization, politics, society and employment, the interdisciplinary approach has become the basis for various social and humanitarian studies in the deputy of social science and humanities (IPSK-LIPI).

The similar thing has also been done by various research centers within the exact sciences and engineering and biological environment at LIPI. In a study of certain drugs, for example, it

requires various theories and techniques from certain disciplines to produce them. A research team requires the involvement of various researchers with diverse scientific disciplines such as plant biology, biotechnology, chemistry, economics, sociology and so on. Research on biosphere reserves certainly requires a team of researchers with diverse disciplinary backgrounds. This is realized because of the complexity of the biosphere reserve which requires an interdisciplinary approach to the problem and with the solutions raised.

Interdisciplinary research can also be useful for developing new science, because it is integrative in answering complex problems. The integrated method can be developed separately into a branch of new knowledge.

However, two problems arise from the interdisciplinary research process carried out at the level of the Research center. Firstly, the limitations of research funds to understand the complexity of existing problems. The use of limited funds is alo often not optimal because of overlapping research topics. For example research with the same topic about the problems of fishery poverty and labor, separately carried out by different center at the same time. For example in the Deputy for IPSK, the same interdisciplinary research topics were carried out simultaneously by different research centers, such as the research on regional autonomy carried out by the Center for Political Research and the Center for Economic Research. Or labor research or food security is carried out by the Research Center for Society and Culture (PMB), the Economic Research Center (P2E) and the Population and Employment Research Center (P2K)). The problem of overlapping research issues / topics such as this is also very likely to occur in various other Deputies in LIPI.

Secondly, competency of center units tends to dominate the approach to interdisciplinary research conducted. For example, in interdisciplinary research on the issue of regional autonomy carried out by P2E, it tends to have a stronger approach to economic discipline even though the various researchers involved different scientific disciplines. Meanwhile, the same interdisciplinary research conducted by P2P will tend to emphasize a political approach compared to other scientific disciplinary approaches because of P2P competency as a center for political research. This means that interdisciplinary research carried out by work units tends to weaken important elements in interdisciplinary research where research problems must be understood by a variety of different perspectives with balanced approaches.

Interdisciplinary Research in the LIPI Flagship Program Level

Interdisciplinary research has become a major concern in driving the progress and contribution of the Indonesian Institute of Sciences (LIPI) to the advancement of national science and development. LIPI realizes that large-scale research with large, significant and tangible results must be carried out through an interdisciplinary approach. Figure 1 shows how the implementation of interdisciplinary research has been carried out in LIPI. Based on the interview, there are three patterns of interdisciplinary research that have been carried out at the LIPI flagship program, namely: Competitive Programs, ICIAR Programs, and National Programs.
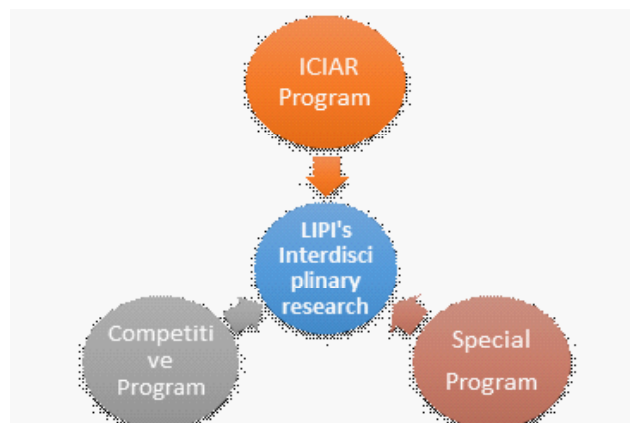
Figure 1. Variaty of LIPI's Interdisciplinary research

Competitive Program

Since April 17, 2002 LIPI has agreed to implement a Competitive Program with the themes of activities determined by the ranks of the LIPI Leaders based on an analysis of strategic issues and / or urgency to be addressed. Then, LIPI's Competitive Program has been carried out since 2004 with a top-down, integrated approach, as well as funding sourced from the state budget on a large scale. This program is carried out through rigorous selection by a panel of experts from inside and outside LIPI. As a flagship program, the scope of this program is quite broad and concerns the major issues faced by Indonesia and is intended to produce a pioneering study / product of knowledge for the advancement of national science and technology. Currently there are seven sub-programs, namely: 1) Exploration and measurable use of biological resources (land and sea) in Indonesia, 2) Molecular farming and medicinal raw materials, 3) Advanced materials and nanotechnology, 4) Clean renewable energy and sustainable clean water supply, 5) Resilience and competitiveness of coastal areas and communities, 6) Disaster and environment, and 7) Critical strategic social issues / CSSI (such as poverty).

According one of the informan, the competitive program is one of the interdisciplinary studies conducted by LIPI. This is seen from the focus of the research that originates from the big issues / problems faced by Indonesia in the context of development in general as well as lags in the pursuit of progress in global science and technology. This is realized by LIPI that to solve these big problems must be understood with an interidisciplinary research approach with substantial funding sources. As an interdisciplinary study, one of the requirements is that at least one researcher in a research team comes from the research center.

However, one of the informants said that the interdisciplinary approach that is expected to strengthen in competitive programs is reduced because the implementation of each activity in the sub-program tends to be based on the competency of the centre. Consequently, the main issues that exist in each sub-program are analyzed separately and are not a related entity. For example, poverty as the main issue in the CSSI sub-program was examined and studied in depth by each research team with different and separate approaches.

To illustrate the complexity of the IR at LIPI, here are examples of competitive sub programs at LIPI namely Competitive Research Program for Regional Autonomy, Conflict and Competitiveness.The conflict competitive research program began in 2003. The program

"Regional Autonomy, Conflict and Competitiveness" is part of the LIPI competitive research program, whose emergence is motivated by too much fragmentation of activities, so a program is expected to grow LIPI is integrated, where substantive issues reflect LIPI's corporate programs in the spirit of synergism (Competitive Research Guide, 2005).

This program is designed as a program / activity that puts forward strategic issues at the local level with limitations on the framework of decentralization and regional autonomy to achieve the formation of civil society, good governance, and industrial competitiveness at the local level.

Competitive programs are directed within clear boundaries starting from the issue of study, approach, institution, process, product orientation / output to the competence of the proposer. Thus it can be explained that:

1. The issue of study put forward is contemporary / actual issues which are also strategic and relevant policy studies;

2. the study aproach is carried out in a interdisciplinary approach, so that the analysis of the problems and outcomes produced is comprehensive and holistic;

3. The institutions involved are cross-research centers and deputies so that knowledge and activities in related fields have accumulated beforehand, so that they are complementary to the fields that have already existed;

4. The study process is oriented towards long-term and multi-year outcomes, but has a clear output every year;

5. A funding mechanism is a block-grant or incentive, directed at a product orientation or a clear benchmark of success. With the expected outcomes refer to two criteria, namely; (a) basic research that is able to develop new theories or approaches; (b) directed models / concepts / designs / guidelines and or policy recommendations.

In 2003-2005 some of the studies included in the Conflict research that were part of this competitive activity program included research on: (1) Conflict in Papua; (2) Conflict in Maluku; (3) Aceh Conflict; (4) Forest Resource Conflict; and (5) Mining Conflict.

In discussions with the former Conflict sub-program coordinator, it was found that, initially there was a desire from the LIPI leaders (especially the Deputy of IPSK) to create sub-programs of conflict studes in several stages, namely the multi-disciplinary research stage, as the team did -the research team in each sub-program. Then, after the next stage is planned, the stages of integration and synthesis of results would be developed to have a model or concept of conflict resolution in Indonesia. According to the informant, after that there is the next stage if the LIPI's Conflict studies team intends to bring the results to the stage of policy making, because the policy making process is a separate long stage that requires a different process from the research process and the process of integration or synthesis of results.

In 2005, there were changes to the management and funding mechanism, it became managed by the Deputy Head of LIPI. This change has an impact on the delay in the integration process that was planned previously. Thus, even though mechanisms that are flexible in terms of funding such as the block grant pattern are maintained, and changes that try to balance substance and administration of more organized research activities have changed some important elements in competitive research at that time. This is implemented for example

by the formation of a Panelist Team which is felt by several researchers and sub-activity coordinators having different perspectives on the integration process that requires continuity of research activities. As a result, several studies were stopped on the basis of a review by the Panelists, making it difficult for the integration process. In the end, the research team went on their own with a multidisciplinary approach and there was no integration process from several Conflict research teams to produce a model or concept of conflict resolution in Indonesia.

Nevertheless, currently one of the results of the Conflict research sub-program, namely Papua's research has produced the Papua Road Map. While members and coordinators of the previous Conflict Team who continue to have attention to conflict issues have also developed what is called the Conflict Prevention Framework (CPF). Other competitive researches were also conducted by study groups and individuals to build a network of the issues they studied such as culture of citizenship among muslim communities in conflict and peaceful areas that develop networking with department of religious affairs.

Critical and Strategic Social Issues Research Program (CSSI)

The Critical and Strategic Social Issues (CSSI) research program is a research activity program that promotes social strategic issues that are urgent to be resolved nationally, regionally and locally at the state and community level, with a choice of the main population problems and community dynamics associated with poverty reduction. The approach taken is to look at the problem of poverty from the state level as well as from the community level, approached by four frameworks with one another related to, namely institutional framework, population framework, framework environment (environmental framework) and technology framework (technological framework).

Since the beginning, the CSSI research program has been designed as interdisciplinary research program that is expected to be able to build new thoughts, concepts or theories in looking at the problem of poverty reduction.

In 2009, there were 9 (nine) research teams joined in the CSSI competitive program, including:

1. Cultural Studies: Poverty Issues from the Cultural Perspective

2. Education Study: Developing a Nine-Year Compulsory Education Completion Model: From Orientation to Strengthening the Organizing Agency to Strengthening (prospective) Orientation Users and Organizers

3. Health Study: Poverty and Health Services: Overview of Population Aspects

4. Food Security Study: Poverty Reduction Through Strengthening Food Security and Stability in Prices of Food Products in Indonesia

5. Social Forestry Study: Eradicating Poverty of Villagers Around the Forest through Social Forestry Activities

6. Local Political Studies: Development, Good Governance and Rural Poverty Reduction Efforts

7. International Political Study: Poverty Reduction in Indonesia: Analysis of National Strategies on the Role of Donor Countries, MNCs and International Institutions

8. Economic Studies: Anti-Poverty Policy in Indonesia (Social Transfer)

9. Water Study: The Concept of Poverty Reduction Based on the Exploration of the Water Poverty Index Variables

Then, in 2011, the program received an additional 3 (three) research teams, namely the Agrarian Study, Innovation Study and Decent Work Study. While 9 (nine) studies that have been running since 2009, have completed their research in 2011.

In terms of management, CSSI's Competitive program learns from the experience of previous management patterns, and takes several appropriate and effective mechanisms to build research results that can lead to the creation of models or concepts of poverty reduction. For example, the CSSI activity program created the framework that underlies research teams that will (and have) been recruited or that have been approved to be funded within the scope of CSSI. The framework was the basis of the research team in covering the issues of its own choosing, but it was hoped that it could fulfill the approach that are expected to bring new strategies as described above.

The difficulty of the management also arose when in 2012 there was a change in funding mechanism which was initially managed by the Deputy Head of LIPI and then had to be managed in research centers, so the management model could no longer be flexible, but followed the DIPA (formal project) pattern. This resulted in some difficulties from the research team because the flexibility to produce better output seemed a little locked up by a strict administrative process.

In terms of substance, in 2012, the CSSI Sub-Activity Coordinator tried an effort to synthesize 9 CSSI research results in 2009 - 2011 by forming a Team called the "Rounding Team". The team consists of the core Team Coordinator of 9 completed studies to formulate a concept and model for poverty reduction to be used as recommendations.

The process of rounding up the concept or model is not an easy one, as revealed by one team member because they have to integrate 9 different research approaches from various fields of science. Although in the end the team succeeded in formulating a concept of poverty reduction, but it was felt that it was still multidisciplinary, there was no comprehensive integration process in terms of the approach, because only the integration of the research results.

ICIAR Program

ICIAR (International Center for Interdisciplinary Advanced Research) program includes: a) Biogeodynamics and sustainable environment; b) Climate change and disaster risk reduction; c) Coastal community resilience; d) Food, health and biomedical sciences; e) Advanced green materials; f) Conflict and crisis resolution, and intercultural studies. This superior research program in ICIAR is expected to be parallel with further research in various world-class research institutions in producing science and technology. In this case the success of this program will support the existence of LIPI as a world-class science and technology institution. This group will be filled by several selected activities that are truly a research frontier. This activity can only be fulfilled by researchers who are able to build international networks / networks and conduct research activities that concern global battles with world class outcomes such as publications in international journals with cited internationally, world class discovery, and world class invention.

ICIAR is expected to be able to initiate various scientific activities by cooperating with foreign partners to work. Scientific communities such as research institutions, universities, non-governmental organizations (NGOs), industries are expected to increase in number in collaborating to map issues that are very crucial in society and seek the best solutions. At the same time, ICIAR is also expected to be able to improve the capabilities and competencies of Indonesian researchers.

The connection of several crucial problems in the community has been made into the ICIAR program as shown in the following figure.
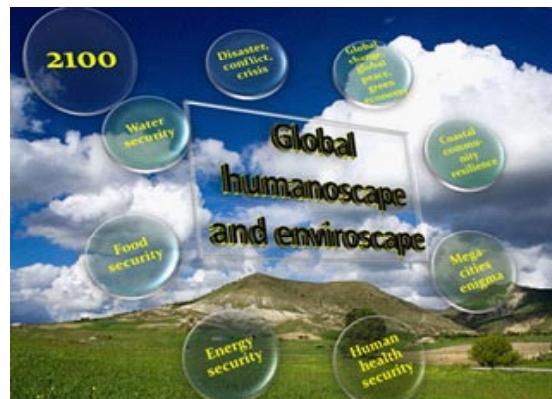
Ficture 2: Variary of ICIAR Program

National Priority (NP)

National Priority is one form of research at LIPI whose assignments and management are specific in nature based on the implementation of the vision and mission contained in the 2010-2014 Medium Term and Long Term Development Plan (RPJMN). In the RPJMN Agenda I it is stated that science and technology are directed towards achieving an increase in the capacity and capability of the nation in combining natural resources, knowledge resources, and resources derived from the national cultural heritage (see LIPI 2010-2014 Strategic Plan).

Based on the agenda, the government launched 11 National Priority programs, some of which were implemented as research programs conducted at LIPI. Among the National Priority programs that conducted by LIPI were 9 Natonal Priority concerning Environment and Disaster, including Disaster research activities and research on Climate Change; then the 11th National Priority program on Culture, Creativity and Technological Innovation which includes studies on Languages, especially about endangered languages.

Special Research

LIPI's research activities which are classified as special programs are carried out in response to special assignments by the Government to LIPI. Some of these special programs include the National Language Program, Research on General Elections, Research on conflict and disaster. Research activities that are classified as special programs are carried out with an interdisciplinary approach because the problems of this research cannot be understood and solved only with one scientific approach. For example, research on conflict and disaster issues. The conflicts that have arisen in the past few years have been caused not only by

political, racial, religious but also economic aspects and various aspects related to ownership and conditions of natural resources. In an effort to understand this problem it is certainly not enough just to use a scientific discipline approach, such as sociology or politics. This problem must be understood comprehensively and interrelated between various scientific disciplines that include social, social, political, economic aspects and life sciences.

Special program research activities are substantially carried out by the Deputy, even though the implementation and administration of responsibility is carried out by research centers. For example, in the Deputy of IPSK, research on language, conflict and elections was carried out by the Center for Society and Culture and the Center for Political Issues. One of the problems associated with implementing interdisciplinary research at the level of a specific program is the strong influence of work unit competencies in understanding and analyzing research problems. For example, cultural scientific discipline as a competency. The management work unit has a strong influence on the analysis of the problem. Similarly, in electoral research scientific discipline from the Centre for Political Affairs dominates the approach to the conduct of research. While other scientific disciplines, such as economics, sociology and population, only provide a small understanding of the research. It must be admitted that the problem with the shift in the use of regional languages, conflicts and elections is not only related to cultural and political aspects but also with aspects of economics, sociology, law and so forth.

Discussion

Thus, research on interdisciplinary research, as well as from the practice and experience of research conducted at LIPI, the form of interdisciplinary research can be divided into two, namely:

- For academic purposes - to create new scientific knowledge, or even if possible to build a new science.

- For the purpose of solving complex problems (problem solving).

In practice, the majority of the results of research conducted by LIPI are still mono-disciplinary or at least new to a variety of multi-disciplinary studies. A research activity usually still has the main scientific approach that is leading, while other scientific approaches are still a 'complement' of the research. However, the practice in the past few years shows the increasing number of research activities began to realize the importance of "tearing down" scientific boundaries to be able to create a new discovery that is breakthrough. This phenomenon occurs not only in the fields of physical and biological sciences, but also in the fields of social sciences and humanity.

There idealism among that expect the integration process from the results of research that has been produced from competitive research activities and national programs to be able to produce synthesis, so that a new model or concept is created in the issue under study. Unfortunately, some administrative and substantive obstacles make ideal plans for integration and / or synthesis often cannot be realized. Substance obstacles are often related to the discussion process that takes a long time, not to mention if the research process is not actually designed as interdisciplinary research from the start; and only presupposes the synthesis process at the end of the study. The result of monodisciplinary or multidisciplinary research designs, cannot always be easily integrated with the results of other studies, even

though they are still in the same issue or problem. This can be seen from the experience of CSSI's competitive research activities for example. While administrative barriers occured when research funding was stopped, or there was a change in the mechanism of management of research activities that caused a reduction in the flexibility of researchers to conduct research because it was more burdened with administrative problems.

IR activities have been the focus of research in many countries. In some countries, with a variety of constraints, IR will be less effective if done with a formal non-structure. From several experiences in other countries, IR activities need to be managed centrally through an official LIPI structure (adapted to the opportunities that exist, but cannot be left to run individually according to the willingness of the researcher). In accordance with its objectives, IR should provide a solution to the problem (social / scientific) that is complex, so it is necessary to make a roadmap by the structure mentioned above as a guideline for researchers. Researchers as human resources need to be prepared that will be involved in the IR, through a scholarship program that requires researchers to continue their studies with research topics relevant to the major themes of IR.

Meanwhile, the ICIAR program arises because of the complexity of problems in society that demand integrated solutions. For this reason, several studies were made in ICIAR, including biogeodynamics and Sustainable Environment, Climate Change and disaster risk reduction, Coastal Community Resilience, and Food Studies. Health and Biomedicine, Renewable Friendly Materials, and Cross-Cultural Conflict Management and Crisis Studies. The six programs have reflected the crucial problems that exist in the society but in the implementation of the six programs have not carried out the synthesis stage in their research and more focused on the environment and social-humanity. The research seem to be carried not fully interdisciplinary but still in a multidisciplinary level. Ideally, ICIAR not only conducts research but also synthesizes research.

Conclusion

Interdisciplinary research is a factual demand in terms of development and deepening efforts of the scientific endeavor, as well as in terms of the usefulness of research in answering problems that arise in society. In terms of its own scientific development, the demand to "dilute" the boundaries of the scientific field is increasingly high because to create comprehensice knowledge, an approach is no longer conventional in one discipline but should be multidimensional through interdisciplinary research. While from the usefulness of problem solving, the more complex problems that arise in society require not only the depth of perspective from one field of science; but wide comprehension used to solve these complex problems. Therefore interdisciplinary research is the future of a variety of research that should be carried out by LIPI and other the world research institutes.

Mindset changes of researchers has to be changed if LIPI tries to have a Big, Significant and Real research result. To achieve the vision and mission of LIPI, new breakthroughs are needed.

In this article, three LIPI programs have been analyzed, namely special assignment programs, competitive programs and ICIAR to show that research activities involving more than one scientific discipline have long been carried out by LIPI in various forms of research activities such as, Competitive (starting in 2002), ICIAR (starting in 2010), Coremap, electric cars,

or ever carried out in previous decades such as Development Research Wamena. However, many of these activities have not fully complied with the IR ideal characteristics because: (1) Research has not formulated research questions that require cross-disciplinary answers in an integrated conceptual framework and methodology; (2) the research phase has not yet been completed because the synthesis process as the final stage of interdisciplinary research has not been fully conducted.

However, it does not mean that the research carried out by LIPI have never carried out an interdisciplinary approach, because several previous studies have also practiced interdisciplinary approaches such as research on Wamena Development in the mid-1990s. In other words, some great mindset changes and management efforts still need to be realized to fully implement interdiscplinary approach.

In terms of interdisciplinary research management, it could be stated that there are positive and negative sides of IR management in formal structures or management with non-formal structures. However, IR management seems to be more effective in the form of formal structure management because it ensures more intensive coordination, more focused human resources management and clearer and more definitive funding.

References

Anzai, Tomohiro; Kusama, Ryoichi; Kodama, Hiroyuki; Sengoku, Shintaro. 2012. "Holistic observation and monitoring of the impact of interdisciplinary academic research projects: An empirical assessment in Japan". Technovation, 32 (6) 2012: 345-357

Ausburg, Tanya. 2006. Becoming Interdisciplinary: An Introduction to Interdisciplinary Studies. (2nd Ed). Dubuque: Kendall/Hunt.

King, Gillian; Currie, Melissa; Smith, Linda; Servais, Michelle; McDougall, Janette. 2008. A framework of operating models for interdisciplinary research programs in clinical service organizations, Evaluation and Program Planning, 31 (2) 2008: 160-173

Klein, Julie-Thompson. 1990. Interdisiplinarity: History, Theory and Practice. Detroit: Wayne State University Press.

König, Bettina; Diehl, Katharina; Tscherning, Karen; Helming, Katharina. 2013. "A framework for structuring interdisciplinary research management", Research Policy, 42 (1) 2013: 261-272.

Mansilla, Veronica Boix. 2005. Assessing Student Work at Disciplinary Crossroads. In Change Vol. 37, No. 1 (Jan. - Feb., 2005), pp. 14-21.

National Academy of Sciences. 2004. Facilitating Interdisciplinary Research. Washington DC: National Academy of Sciences.

Newell,William. 2007a. Decision Making in Interdisciplinary Studies. In G Morcol (Ed), Handbook of Decision Making (pp. 245 – 264). New York: Marcel-Dekker.

Repko, Allen F. 2008. Interdisciplinary Research: Process and Theory. Los Angeles: SAGE Publication.

Rhoten, Diana, Veronica Boix Mansilla, Marc Chun, and Julie T. Klein (2006) in

Interdisciplinary Education at Liberal Arts Institutions. Teagle Foundation White Paper. Diakses tanggal 5 April 2013 dari http://info.ncsu.edu/strategic-planning/files/2010/10/2 006ssrcwhitepaper.pdf.

Zaenuddin, D. et.al. 2013. Characteristics and Management of Interdisciplinary Research at the Indonesian Institute of Sciences. Unpublished research repot

ROLE OF EDUCATION IN NATIONAL BUILDING

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A nation is built by its citizens, citizens are molded by teachers and teachers are made by teacher educators. Now a days the Education globalizes , which means all the people of the world have accepted the similar curriculum of study of different subjects. It has been universalized. The Teacher Education is honored by all the people of the world.Such Globlisation is possible now through Educational Technology which is the part of education making the teaching-learning process Easy, Simple, Workable and Efficient having Scientific, Psychological and Methodological aspects of education. Through frequent research it has become possible to understand that the technological developments in the department of education can bring success in our life. Despite making loud pronouncements regarding availability of qualified teachers it was seen that even Right to Education Act 2009 can make very small contribution to the quality education in schools. In most of the rural schools, particularly in the state of Bihar, Government runs an excellent kind of schemes for school teachers as well as its students.

Education holds the key to the progress and prosperity of nation as a powerful agent of social change. It determines the nature and composition of the future society as well as its values and goals. Education has become a vital input for general 'Public Good' and a critical imperative for all level. Education is not only is the basis for generation of new knowledge, the technology and skills through research, innovation and creativity but also facilitator for achieving "Knowledge Society with Inclusive Growth".

Education is normally the acquiring of knowledge as well as the skills that are accepted by a given society. On the other hand, nation-building is the implementation of processes that are geared towards recomposing the nation's institutions so that they can reflect the wishes, needs and aspirations of the wider society.Since education is the pathway to any nation-building enterprise. Education creates an enlightened society. This is a crucial prerequisite to nation-building because the more a people become enlightened the more they would refrain from doing practices that will endanger the nation-building effors. For example, eduacated elites will always tend to be responsive and responsible citizens. By this I mean, they obey state laws and properties. Without this, no nation-building efforts will be set in earnest.

Nation -building requires a 'meritocratic'bureaucracy in order to make the state's institutions effective.Therefore,with education ,the country will have the best human resources that are

competent enough to carry the day- to – day affairs of the state . Most states collapse as a result of a low level of education because the human resources is so weak that it is incapable of filling state institutions .But with education ,this problem is averted.

Nation – building requires a democratic society that allows the contribution of all,rich or poor .With education,there will always be an increase in democratic participation .This partipation will in turn enhance nation – building.initative because the participation of all the citizens is counted in nation-building.

Education is very crucial in the formation of cross – cutting cleavages that embrace diversity .Accepting differences therefore is very important to nation building until we accept out differences and come together to build the nation,progress will never be made.With education ,this fear is allayed .

Education creats a large middle – class (professionals,teachers,doctors,technicians etc).This class is very important to nation-building because they provide the necessary expertise that is needed to building a nation. This is the more reason why emphasis has been laid on education because an educated society is always a steong society ,and a society is set for development .

Overall therefore,education correlates with nation – build .Both of them complement each other .A nation cannot be built without education .With education,professionals are nurtured that will enhance nation –building.In the same way ,education leads to efficient usage of a nation's resources, which in turn is very crucial to nation-building because without efficient usage of a nation's resources,nation- building will not be successful.This is evident in the developed nations.To continue to build their nations,they educate their citizens,because education shapes the attitudes and behaviors and values of citizens .These are qualities that are needed for nation –building and it is only education that will bring those mechanics.

A nation is usually defined by its shared history, culture language(s) and sometimes religion. This definition is by the nature of its measures,backwards looking.It defines a nation based on what it has been to give some sense of what it is now and what it might be. Economic statistics provide another definition of a nation The level of urban and peri-urban population,GDP per capita,GDP growth rates, Population growth rates and unemployment levels are a few of the criteria used to describe a nation .Economics statistics can equally well describe what makes the nation today,how quickly life is changing for better or for worse and with a lower degree of accuracy ,what the future will be like.

But what measures the soul of a nation?What of tolerance, equality of opportunity and the sense of a united purpose?These criteria measure the future of a nation based on a common identity and loyalty to a set of political ideas and institutions.To build a nation,therefore one must consider the past to build a common purpose for the future based on today's capabilities. Education impacts all three elements of what defines the notion of nation building.It is clear that the economic progress that a quality education brings,delivers better jobs and more jobs which in turn offer the citizens of a country more choice in what they do with their lives and indeed the lives of their children.It is also clear to me that the belief that we have choices in our lives builds contentment.

Education is powerful tool for national development as it is the only route to economic prosperity for both individuals and the nation .Its role will amplify for both individuals and the

nation.Its role will amplify as changes in technology ,globalization and demographics,impact productivity and ,thereby,economic growth.It is imperative for india ,with the second largest population in the world to focus on education to unlesh the full potential of its human capital and develop a democratic knowledge society while ,at the same time, help to reduce poverty and social inequality.

The higher education system in India has benn critical to india's emergence in the global knowledge economy and has contributed significantly to the large pool of qualified manpower required to support economic growth.However ,the higher education system seems to be plagued by several problems inadequate number of institutions to educate eligible students,poor employability of the graduates produced by the universities ,low nad decling standards of academic research ,an unwieldy affiliating system,an inflexible academic structure,an archaic regulatory environment,eroding autonomy and low levels of public funding.

India's huge pool of young people might be considered its biggest strength .Government data suggest that only one child out of every seven children born in India goes to college. What's more ,the nation suffers from both a crippling quantity,as well as a quality, challenging when it comes to higher education.

Teacher has been looked upon by the society as the wisest men of the community. s/he enjoyed very respectable status in the society. In Indian society same spiritual and social cultural leaders had more respect for the teacher than to the God. According to NCF-2005 " Teacher education Programmes today train teachers to adjust to a system in which education is seen as the transmission of information." Teachers are expected to help in the silent social revolution that is taking place in the country. This duty does not end in the classroom with his students. S/he owes duty to the society and the nation.

"*Education does not take root in the soul unless one goes deep*" (Protugus)

REFERENCES:

G B Tilak ,Jondhyala (2013):Higher Education in India:In Search of Equality ,Quality and Quantity.

Agrawal,Paswan (2009) India higher Education Envisioning The Future .

Altback ,Philip G (2012);A Half –century of Indian Higher Education.

Eleventh five year plan,2007-2012.Govrnment of india planning commission ,New Delhi.

Sing,shreyasi (2013) ;challenges and solution in Indian Higher Education.

Times of India Guide to Higher Education ,VOL iv,2012

LACK OF FORMAL EDUCATION OF THE BUDDHIST AND MUSLIM MONKS: THE CAUSE OF BUDDHIST – MUSLIM TENSION IN MYANMAR

Myo Yan Naung Thein

Myanmar is a multi-ethnicity,multi-religious,multi-cultural society. There are four main religions in Myanmar: Buddhism ,Christianity ,Islam and Hinduism .About 80% of the populationare Myanmar-Buddhists.The rest are shared by other religions, i.e. about 5% each. Myanmar Buddhist Communities are living well along peacefully with Myanmar Hindus communities and Myanmar ChristianCommunities; meanwhile , more or less in tension with Myanmar-Muslim Communities . The question is why , of course ; the answer lies mainly on how two communities see each other and howpeople in these two communities are taught and trained in their childhood , especially informally.

There are two kinds of education everywhere in the globe;informal education and formal education.Informal education relates mainly to family and society.It can be called as cultural education. The other is formal education.It is more like governmental education.Myanmar people follow formal education because they need to be formally educated in order to be higher position in social hierchy.That means formal education in Myanmar is more like show business; in fact people follow their learning in informaleducation , in other words , cultural or religious education .

In Myanmar,after more than 60 years of dictatorship, civil war and violence, there remain only two main strong institutions in Myanmar.One is cultural Institution.and the other is Military Institution.Cultural Institution can be regarded as soft and intangible institution , but is more powerful and more influential. Military Institution which since independence in 1948 , has been ruling the country ; and so it is the strongest visible and tangible institution, but not asinfluential as the cultural institution .Still , It can play anenormous role in Myanmar Politics , important role in Myanmar Politics.When we consider about Myanmar Cultural Institution, Buddhist Monasteries play giantly important role.

More than seventy percent of Myanmar population live in rural areas ; they live in villages.In rural areas,in villages,the most influential person is the chief-monk of the monastery of the village.All the villagers believe whatever the monk say to them. Thechief-monk is the most influential person in all the village of rural area in Myanmar .

Traditionally , parentssend their children to the monisteries in order that they are educated.In that case, we have to look at educators monks how they get their education .

Normally, Buddhist monks ,they don't go to formal education schools. They are educated in monasteries .It means they learn only Buddhist Scripts .They are normally away from scientific and modern education; so they are overwhelmed only by the religious teachings .In many cases,they are against the modern education. But these days, they are more and more formal and non-traditional educatedmonks .It is a good news but still there are many culturally , religiously educated monks who are influencing the villagers.They are teaching the children of the villages .

It is a general phenomenon in Myanmar that Parents want their children to be monks because they believe if their sons become monks they get very good merit for their future lives ; they can be in well-being status in their future lives .It is philosophically speaking or according to Buddha teaching totally wrong phenomenon .

Buddha never taught that .But it is culture.It is tradition.People normally believe and they want their sons to be monks.If their sons are monks, they can be of prestige in their villages .So parents in rural areas,in villages, they send their children to monistries in order that they get Buddhist education and as a result , they will be the monks.They also send their children to formal education,governmental schools but governmental schools in rural areas are not very well equipped. Teachers are not well-trained ; moreover so , the teachers themselves culturallydominated, culturally influenced.

So Myanmar society is the cultural society, culturally influenced society, Buddhist influenced society. Buddhism does nothing wrong ; Buddhism is the peaceful religion but the cultural Buddhism and the national Buddhism are different cases .

Of course , they are some contradiction .Cultural Buddhism is based mainly on some extreme traditional beliefs . They regard Buddha as the supreme GOD .The Buddha's Teaching are very wise and very phylosophical.It shows the people how to live a life peacefully, lovely and not harming other people.

But Buddhism in Myanmar is more cultural ,so Buddhist-Myanmar people are mainly traditional Buddhists and often go confrontational with Myanmar-Muslim Communities. On the other hand , Myanmar Muslim communities normally live in their own enclosed communities.They wear different. They look different. They eat different.If you have Muslim friend,he will never join you to sit together in a restaurant to sit and talk . If you are twenty friends together, nineteen are Buddhists or Christians ; and only one is Muslim , you are obliged go to Halah restaurant , if you want to maintain good friendship with that Muslim friend .So Buddhist/Christian/ Hindu friends have to endure Muslim friend if they want to be in agood friendship .

 Muslim community in Myanmar they close themselves up.They have their own education system.They have their own marriage system.They have their own of everything.

Christian communities and Hindu Communities do not contradict with Myanmar-Buddhist Communities because they ,Myanmar-Christians and Myanmar-Hindus, Myanmar-Buddhists, behave and live , more or less the same ; they can sit together , they can eat together, they can enjoy together.Myanmar-Christians and Myanmar-Hindus enjoy Water Festival that is Buddhist Festival while Myanmar-Buddhists also enjoy Christmas, Myanmar and Devapali.

But Myanmar-Buddhists or Myanmar-Christians or Myanmar Hindus are quite far away from Muslim Festivals.

As mentioned above, Myanmar is a cultural society.Not only Buddhist monks but also Christian Preachers ,Hindu Monks , and Muslim Teachers ,they are very influential in their own respective communities . Although , they are different in religions ,culturally Myanmar share many common values; they respect their teachers, their religious leaders.

If we want to change what is happening in Myanmar ,we need to look at the informal education especially cultural education.We need to think about how we can educate the buddhist monks to be scientically educated or formally educated.In same way we have to think about Muslim Teachers to be scientifically educated.

Christian monks, priest and pastels are highly recognized by Myanmar population because they are highly respected by Myanmar educated people because they are formally educated. They are not influenced a lot by culture and tradition.

Myanmar-Buddhist Communities and Myanmar-Islam Communities are culturally influenced and culturally tightly in a small hole , especially their religious leaders. Buddhist monks and Muslim teachers/monks are not trained in global education system ,in more than 90% of the cases, not formally educated .Even if they are formally educated ,they are not influened by formal education.So and their followers respect them not for their formal education but for the religious education ,religious believes.

If the world want Myanmar to be peaceful society, we need to change that scenarios.We need to think about how to educate Buddhist monks in formal global education system as well as Muslim Teachers.How we can make Buddhist monks, Buddhist teachers, Muslim teachers to respect formal education to learn about the Globalization,Multi-Cultural Societies.They need to learn to love multi-religious,multi-cultural environment.

That is a real challenge in Myanmar!

To conclude,this is my concept note for presentation how to educate religious leaders in order that they respect and follow formal education, in order that they like and appreciate globalization,multi-cultural,multi-religious global world.

A STUDY OF CREATIVITY AMONG COLLEGE STUDENTS WITH REGARDS TO MEDIUM OF INSTRUCTION GENDER AND LEVEL OF ADJUSTMENT

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Introduction

The meaning of creativity is to think or do something differently. It is a kind of fantasy in which new ideas are promoted and that new ideas are essential to the advancement of human society. Creativity is defined as the tendency to generate or recognize ideas, alternatives or possibilities that may be useful in solving problems, communicating with others and entertaining ourselves as well as others. In other words, it can be said that creativity is the strength or capacity to inflict and create any new object. Although novelty is given special importance in creativity, yet a creative person can present old objects in new forms instead of inventing any new object. Factors like originality, spontaneity, expansion, flexibility in work etc. are inherent in the creative production of a person. Creativity is inherent in each person. Being doctors, engineers, musicians, singers, painters, scientists, writers, etc. theyare leading the world on the path of development. Creativity started with the evolution of human society. Initially there was relationship of creativity with intelligence, conscience and foreshadow, but later on scientific discoveries gave right direction to Creativity can be defined on a variety of levels: cognitively, intellectually, socially, economically, spiritually, and from the perspective of different disciplines within the arts, sciences, and humanities. All students in Wisconsin can develop their creative capacities if they have access to rich learning opportunities in environments that nurture and support their creative development.

Components of Creativity

Creativity has four components

1. Continuity: - Creative child has the ability to consistently change in useful manner. A child who has different types of ideas continuously that child is considered to be a creative child.

2. Flexibility: - Creativity in a person refers to self-control, foresightedness and the trait of taking care of others' likes and dislikes. Such a person brings a change in his/her thoughts according to time and circumstances

3. Originality: - Creative child does not love the old ideas. His/her ideas have originality.

Such a child is strong-willed, industrious and courageous.He/she is always eager to start any task by himself/herself. In each case his/her opinions are entirely different from those of other child.

4. Expansion: - Creative child can exaggerate any matter or event. His/her vocabulary is very rich and has interesting way of expressing ideas.

Review of Literature

Menon (1980) conducted a creative study on some higher secondary school students, drawn from some English Medium Schools. He found that creativity can only standardized through the medium of language. It can also be connected with mind and achievement.

Biswas, P. and Shukla B. (1991) did research work on need, achievement and eagerness of self-expression with regard to creativity. The purpose of this research was – to determine the nature and extreme limit of creativity and self-expression for diverse classes. For this research 200 118 rural students (100 boys and 100 girls) of 9th class were taken from Agra district as sample. The research concluded that- creativity was related to self-expression. And creativity was also related to need of achievement and eagerness. There were significant differences between Student of Rural and Urban section based on the point of creativity, self-expression and eagerness. And even boys and girls were different on the basis of above points.

Krishna Kumari Gupta (1988) has done a research work on 'Creative development of secondary school children in terms of gender and intelligence in rural and urban environment'. The objective of this research was- To study the creative development of boys and girls of secondary school on the basis of age and education in the following references- To learn about prevalence of creativity of boys and girls. To estimate difference of gender in development of creativity. To find regional (urban and rural) differences in creative development samples of boys and girls. To find development of creativity and intelligence at various levels in boys and girls from urban and rural areas. Further to carry out this research study 2000 urban and rural students between the ages of 11-15 years studying in government aided secondary school of Aligarh district were taken as sample. The research study concluded that- Creative development in terms of urban and rural boys and girls, development in boys from 11 years till 13 years of age and in girls till 14 years of age is at great intensity. However after 15 years it drops gradually. Typically, creativity increases at the age of 11 years 119 and increases till the class. After this stage, decline is seen in creativity. In fact the development of creativity is at its peak at the age of 13-14 years. Normally, creative development among girls is quite better than boys at the age of 13-14 years in both rural and urban areas. The prevalence of creative development is not linear in boys and girls. Urban students are superior to rural students in creativity development, especially among the age group of 11-15 years. Low positive correlation exists in intelligence and creativity of boys and girls in secondary school of urban and rural areas.

According to Reid and Petocz (2004) creativity can be viewed in different ways in different disciplines: in education it is called "innovation"; in business "entrepreneurship"; in mathematics it is sometimes equated with "problem-solving", and in music it is "performance or composition". A creative product in different domains is measured against the norms of

that domain, its own rules, approaches and conceptions of creativity.

Objectives

1. To study and compare creativity between Guajarati medium and English medium college students.

2. To study and compare creativity between male and female college students.

3. To study and compare creativity between highly adjusted and low adjusted of college students.

4. To study interaction effect between medium of instruction and gender of college students with regard to creativity.

5. To study the interaction effect between medium of instruction and level of adjustment of college students with regard to creativity.

6. To study the interaction effect between gender and level of adjustment of college students with regard to creativity.

7. To study the interaction effect among medium of instruction, gender and level of adjustment of college students with regard to creativity.

Hypothesis

1. There will be no significant difference between Guajarati medium and English medium college students with regard to creativity.

2. There will be no significant difference between male and femalecollege students with regard to creativity.

3. There will be no significant difference between highly adjusted and low adjusted of college students with regard to creativity.

4. There will be no significant interaction effect between medium of instruction and gender of college students with regard to creativity.

5. There will be no significant interaction effect between medium of instruction and level of adjustment of college students with regard to creativity.

6. There will be no significant interaction effect between gender and level of adjustment of college students with regard to creativity.

7. There will be no significant interaction effect among medium of instruction, gender and level of adjustment of college students with regard to creativity.

Sample

For the present research sample was taken Purposive sampling from the Ahmedabad District. The total sample was categorized as under.

Level of Adjustment	Guajarati medium Students		English medium Students		Total
	Male	Female	Male	Female	
Highly Adjusted	40	40	40	40	160
Low Adjusted	40	40	40	40	160
Total	80	80	80	80	320

Variables:

In present research medium of instruction, gender and level of adjustment were considered as Independent variables and Scores of creativity was considered as Dependent variable.

Tool:

1. Creativity test by Dr. Roma Pal, 1986

2. Self constructed adjustment scale

Reliability of the test

The Test-retest Reliability and split half reliability have been obtained for the creativity factors as the total creativity.

Showing Test-retest Reliabilities of Creativity components and the total creativity scores (N = 100 and 15 days interval).

Fluency	Flexibility	Originality	Total Creativity
.961	.879	.792	.939

Fluency	Flexibility	Originality	Total Creativity
.961	.938	.912	.948

Validity of the test

For the validity coefficient of this test, the factor-validity and validity coefficients against the teacher rating have been calculated. For the factor validity, the Correlation Coefficient between the components of creativity and the total creativity scores have been calculated which are given below: A. For the Urban Sample (N=200)

Factor	Fluency	Flexibility	Originality	Total Creativity
Fluency	-			
Flexibility	.892	-		
Originality	.698	.710	-	
Total Creativity	.938	.948	.879	

Procedure

After establishing the rapport with selected college students, creativity test administered in small manageable group of students. After completion of data collection scoring was done by scoring key of creativity test.

Statistical Analysis:

To find out main and interaction effect of three independent variable such as medium of instruction, gender and level of adjustment on scores of creativity three way Analysis of Variance was used.

Results and Discussion

Table No: 1

Showing Results of ANOVA on Creativity of Various Groups of college students

Source of Variation	Sum of Square	df	Mean sum of Square	F	Level of Significant
Ass	42688.80	1	42688.80	74.27	0.01
Bss	340.31	1	340.31	0.49	NS
Css	423.20	1	423.20	0.74	NS
AxB	45814.05	1	45814.05	10.12	0.01
AxC	6975.11	1	6975.11	12.14	0.01
BxC	180.00	1	180.00	0.31	NS
AxBxC	316.01	1	316.01	0.55	NS
Tss	2360664.49	319			

Table No: 2

Showing Mean Scores of Creativity of Variable-A (Medium of instruction) of college students

	A1	A2
Mean	100.18	73.33
N	160	160

F ratio of creativity among college students (Ass) is 74.27 whichis significant at 0.01 level. It means English and Guajarati medium college students differ significantly on creativity. Same as table No.2 shows the mean scores of English medium college students is 100.18 and the means score of Guajarati medium college student is 73.33 on creativity. It clearly indicates that significant difference exists between English and Guajarati medium college students on creativity. English medium college students have more creative than Guajarati medium collage students.

Table No: 3

Showing Mean Scores of Creativity of Variable-B (Gender) of college students

	B1	B2
Mean	87.6	89.66
N	160	160

F ratio of creativity among college students (Bss) is 0.49 which is not significant. It means male and female college students do not differ significantly on creativity. Same as table No.3 shows the mean scores of male college students is 87.6 and the means score of female college student is 89.66 on creativity. It clearly indicates that significant difference does not exists between male and female college students on creativity.

Table No: 4

Showing Mean Scores of Creativity of Variable-C (Level of Adjustment) of college students

	C1	C2
Mean	89.78	87.48
N	160	160

F ratio of creativity among college students (Bss) is 0.74 which is not significant. It means students of highly adjusted and low adjusted do not differ significantly on creativity. Same as table No.4 shows the mean scores of highly adjusted college students is 89.78 and the means score of low adjusted college student is 87.48 on creativity. It clearly indicates that significant difference does not exist between students of highly adjusted and students of low adjusted on creativity.

Table No: 5

Showing Means Scores of Creativity of Variable-AxB (Medium of instruction x Gender) of college students

		A1	A2
B1	Mean	94.89	80.33
	N	80	80
B2	Mean	105.48	73.85
	N	80	80

F ratio of creativity among college students (AxB) is 10.12 which his significant at 0.01 level. It means medium of instruction and gender of college students differ significantly on creativity. Same as table No.5 shows the mean scores of male college students of English medium college students is 94.89, female college students of English medium is 105.48, means score of male students of Guajarati medium is 80.33 and mean score of female students of Guajarati medium is 73.85 on creativity. It clearly indicates that significant interaction effect exists between medium of instruction and gender of college students on creativity. Female college students of English medium have more creative than remaining groups of college students.

Table No: 6

Showing Means Scores of Creativity of Variable-AxC (Medium of instruction x Level of Adjustment) of college students

			A1	A2
C1		Mean	106.00	73.56
		N	80	80
C2		Mean	94.36	80.60
		N	80	80

F ratio of creativity among college students (AxC) is 12.14 which is significant at 0.01 level. It means medium of instruction and level of adjustment of college students differ significantly on creativity. Same as table No.6 shows the mean scores of highly adjusted of English medium college students is 106.00, low adjusted of English medium college students is 94.36, means score of highly adjusted of Guajarati medium college students is 73.56 and mean score of low adjusted of Guajarati medium college studentsis 80.60 on creativity. It clearly indicates that significant interaction effect exists between medium of instruction and level of adjustment of college students on creativity. Highly adjusted of English medium college students have more creative than remaining groups of college students.

Table No: 7

Showing Means Scores of Creativity of Variable-BxC (Gender x Level of Adjustment) of college students

			A1	A2
C1		Mean	89.5	86.51
		N	80	80
C2		Mean	85.7	82.23
		N	80	80

F ratio of creativity among college students (BxC) is 0.31which is not significant. It means medium of gender and level of adjustment of college students differ significantly on creativity. Same as table No.7 shows the mean scores of highly adjusted of English medium college students is 106.00, low adjusted of English medium college students is 94.36, means score of highly adjusted of Guajarati medium college students is 73.56 and mean score of low adjusted of Guajarati medium college students is 80.60 on creativity. It clearly indicates that significant interaction effect does not exists between gender and level of adjustment of college students on creativity.

Table No: 8

Showing Means Scores ofCreativity of Variable- Ax B x C (Medium of instruction x Gender x Level of Adjustment) of various group of college students

		A1	A2		
		B1	B2	B1	B2
C1	Mean	102.45	109.55	76.55	70.76
	N	40	40	40	40
C2	Mean	87.33	101.4	84.08	77.13
	N	40	40	40	40

F ratio of creativity among college students (AxBxC) is 0.55 which is not significant. It means medium of instruction, gender and level of adjustment of college students differ do not differ significantly on creativity. Same as table No.8 shows the mean scores of highly adjustment of English medium male college students is 102.45, low adjusted of English medium male college students is 87.33, highly adjusted of English medium female college students is 109.55, low adjusted of English medium female college students is 101.4, highly adjusted of Guajarati medium male college students is 76.55, low adjusted of Guajarati medium male college students is 84.08, highly adjusted of Guajarati medium female college students is 70.76 and low adjusted of Guajarati medium female college students is 77.13. It clearly indicates that significant interaction effect does not exists among medium of instruction, gender and level of adjustment of college students on creativity.

Conclusions

1. Significant difference exists between English and Guajarati medium college students on creativity. English medium college students have more creative than Guajarati medium collage students.

2. Significant difference does not exist between male and female college students on creativity.

3. Significant difference does not exist between students of highly adjusted and students of low adjusted on creativity.

4. Significant interaction effect exists between medium of instruction and gender of college students on creativity. Female college students of English medium have more creative than remaining groups of college students.

5. Significant interaction effect exists between medium of instruction and level of adjustment of college students on creativity. Highly adjusted of English medium college students have more creative than remaining groups of college students.

6. Significant interaction effect does not exist between gender and level of adjustment of college students on creativity.

7. Significant interaction effect does not exist among medium of instruction,gender and level of adjustment of college students on creativity.

References

Menon (1980). A study of creativity in English Language at Higher Secondary Level in some English Medium School, Unpublished Ph.D. (Edu.) Thesis, Mehaliya University.

Biswas, P. and Shukla B. (1991). Reactions to frustration of creative and non creative school going adolescents, Indian Education review, Vol., 26 (1).

Kumari, Krishna; Gupta (1988).. Creative Abilities of tribal Children in Relation to Their Sex and Socio-Economic Status, Journal of the Institute of Educational Research, Vol. 9, No.4, pp. 1-4.

Peter Petocz (2004). Learning Domains and the Process of Creativity. Australian Educational Researcher 31(2).

MODERN BALINESE PAINTING AS GLOCAL ARTS (LOCAL GLOBAL) AND CELEBRATION OF CROSS-CULTURAL DIALOGUE

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Abstract. This paper is the result of qualitative research using a critical social paradigm. The problem studied was modern Balinese art as a glocal art and celebration of cross-cultural dialogue. The method used in this study is a qualitative research method that relies on the paradigm of the theory of glocalization and theory of hybridity. The object of the study is modern Balinese art. The results of the study show that in modern Balinese art there is a practice of glocalization. The practice of glocalization is in the form of localization of the global code and mixed with Balinese local codes. The glocalization process takes place through the stages of adoption (adapt), adaptation (adapt), and advanced (adept). Global objects, themes, and techniques undergo an adjustment process to be in line with Balinese aesthetic rules. Cross-cultural dialogue can be seen in the mixture of global and Balinese local objects, themes and techniques. As for these global objects - cars, airplanes, helicopters, paragliding, and tall buildings. Global themes, namely the theme of Christian religion, and the techniques of global art — perspectives, anatomy, and lighting mix with Balinese local themes. Global art techniques are mixed with Balinese art techniques, as seen in composition, anatomy, and lighting.

Keywords: Glocalization, Hybridity, Modern Balinese Fine Art, Cross Cultural Dialogue

Introduction

Balinese art, in the pre-colonial period, contained the symbolic meaning of Hinduism. There are three main things that can be seen in Balinese art, namely ideas, forms, and behavior (Bandem, 1995: 99). The idea of the creation of Balinese art has as a source in the Hindu

religion that in its form among other painting, carving, weaving, and others. The creation of Balinese art is based on the desire to devote because of the encouragement of the spirit of karma and bhakti marga, namely as a way to achieve unity with Hyang Widhi Wasa (Bandem, 1995: 101). Therefore, between Hinduism and art interrelated and needed each other. Amaladass (2007: 67), that religion without art will feel bland, and art without religion has no clear purpose. Because of the close relationship between art and Hinduism, they are

often even equated, as expressed by Granoka in Suamba, (2003: 3), that art is religion and religion is art.

Balinese art carries the theme of puppets taken from the epics of the Mahabarata, Ramayana, as well as other Hindu holy tales, which were created guided by Hindu aesthetics. Hindu's

aesthetics has three aspects, namely the shiwam aspect (chastity), satyam (truth/loyalty), and sundharam (beauty) (Dibia, 2003: 96). The aspect of chastity and truth is related to the content or meaning, while the aspect of beauty is related to the visual aspect only. Content or meaning is more preferred considering that Balinese art adheres to the principle of form follows meaning (Piliang, 2010: 157). The visual forms presented refer to ideological or spiritual meanings.

Balinese fine art is a collective art because it presents the characteristics of the community. Even though it is a collective art with a distinctive dialect, it does not cover the possibility of an individual style (ideolek). Gell (1998: 159), says that the collective style and individual style cannot be separated considering the collective style is the background for the individual style. In the collective style always grows individual style.

The puppet theme is displayed based on traditional standards. For example, the figure of the puppet, namely the head and body parts are drawn in three quarters (Djelantik, 1990: 12), while the legs are seen from the front. The attributes, accessories, and colors of puppet characters are apporiated to their respective symbolic meanings. In Balinese art, puppet scenes are laid out narratively based on the storyline. In one theme consists of several scenes that narrate and continue until the story ends.

Balinese painting has undergone revolutionary changes after being influenced by modern or global (art) culture. Modern or global art that is based on the homological and universal paradigm carries the spirit of progress, rationality, and novelty, high culture, artistic autonomy, a single code, aesthetic formalism, and form follows function (Piliang, 2006: 130-135). Modern art then developed into global art, but the spirit of modernity was put forward. Modernism or the global have the same interests in worldly matters, come from Western countries, and refer to rationality. Since getting a modern influence, the puppet theme changes to the theme of everyday life. Likewise, modern art techniques were also adopted, including perspective techniques, anatomy, and lighting techniques. The description of the object is based on consideration mathematical calculations (Couteau, 2003: 120).

Themes and techniques are adopted from modern art, so the colonial period of Balinese painting is called modern Balinese art (Couteau, 2003: 125). Global art spread throughout the world in line with the development of increasingly sophisticated science and communication technology. Giddens (2009: 84), said that globalization as an intensification of world social relations that connects localities that are far apart, so that an event that occurs in a place can be accessed easily and quickly from far away.

The influence of global art, besides causing positive impacts and also negative impacts. The positive impact is the development of Balinese painting in a dynamic direction. The negative impact of global influences is the loss of local characteristics of Balinese painting, remember that globalization is a process towards universal direction (Giddens, 2009: 85). Globalization is inevitable recall that Bali has become part of a global village (Giddens, 2009: 86). Under the dominance of globalization, Balinese painting needs to find ways to embrace positive

influences and minimize negative influences (Fernandez, 2009: 45). One way that is done is glocalization. Glocalization is a form of localization of global culture which is characterized by the presence of mixed cultural elements (Ritzer and Goodman, 2010: 558). Localization of the global cultural code in Balinese painting, in fact, has occurred since the colonial period. This can be seen in the presence of objects, themes, and techniques of global art — coloring, lighting, anatomy. Meanwhile, there have not been many studies on glocalization in Balinese painting. Likewise, the study of visual aspects in Balinese painting that points to cross-cultural dialogue has not been done much. In this regard, this article examines two main problems, namely the first, glocalization in Balinese painting and the second, cross-cultural dialogues examined from objects, themes, and techniques.

The theoretical approach used to study it is the theory of glocalization (Fernandez, 2009; Barker, 2004; Barry, 2010) and hybridity theory (Barker, 2004). By hold on to this theory, it can be built the assumption that glocalization in Balinese painting is a form of localization of global cultural codes characterized by the presence of mixed cultural elements. The localization process takes place through the stages of adoption (adopt), adaptation (adapt) and advanced (adept) (Barry, 2010: 228). Cross-cultural dialogue is seen in the display of objects, themes, techniques, which are hybrid forms (Barker, 2004).

Research Methods

This article is a small theme from the results of a dissertation entitled "Genealogy of Prerananism in the Development of Balinese Art" (Supir, 2016). The approach used is qualitative research that have support on the paradigm of glocalization theory (Fernandez, 2009; Barker, 2004; Barry 2010) and the paradigm of hybridity theory (Barker, 2004, Piliang, 2006). The object of research is Balinese painting. Balinese painting is a cultural artifact that has a structure of visual language that is understood through the paradigm of postmodern aesthetic theory (Piliang, 2006).

Disclosure of visual language done, other than through in-depth interviews and informants, among others, painters, gallery owners, critics, and others, as well as observing Balinese paintings. In addition, documentation studies were also carried out especially on literature which discussed Balinese painting. The approach was integrated to answer the research problem.

Data Analysis and Interpretation

Glocalization in Balinese Painting

Emergence of Glocalization in Balinese Painting

In The Oxford Dictionary of New Words that the term is "Glocal" and the word glocalization is said to be a process of mutual breakthrough between global and local to make a unification. Initially, glocalization was applied in agriculture to adapt global agricultural techniques to local conditions. The word glocalization, later, was used in the field of language and in the 1980s, it was used in the fields of business and marketing (Sedda, 2015: 36).

Glocalization is a way to balance local and global. A culture is said to have been localized if there were other cultural elements in it that could enhance and enrich the culture itself. Glocalization can form a hybrid of culture as a result of meetings between global culture and local culture. Barker (2004: 405) said that glocalization is a term used to express global

production of local products and localization of global product. Cultural glocalization is reflected in the presence of localized global cultural products. This can be seen in Balinese painting, namely the presence of visual elements and the principles of the preparation of global art that has been localized. The emergence of localized elements and compilation techniques of global cannot be separated from the role of power in the colonial period. Dutch colonial rule over Bali because it had advanced technological and scientific equipment. As a nation that glorifies rationality and holds the spirit of homogenization, Dutch Colonialism made uniformity over its colonies. The practice of uniformity is carried out by the Dutch Colonial in almost all areas of Balinese life, including the arts (painting). Western artists who are under the Dutch Colonial rule follow the concept of binary opposition in viewing Balinese art. The binary opposition is a system that attempted to divide the world into two classifications — top-down, big-small, male-female and other. The practice of binary opposition raises central- peripheral relations, subject-objects, master-slaves, which then give birth to dominance (Rusbiantoro, 2001: 3).

Western artists view Western art as a rational, advanced, superior, dynamic art different from Balinese art that is positioned as an irrational, backward, static art, and its object comes from the world of imagination (Djelantik, 1988: 24). In the position of Balinese art as a background art, Western artists - Spies and Bonnet - teach Balinese artists the rules of modern art. Thus, Western artists place modern art as a center or role model, while Balinese art is the edge. Positioning the center-edge causes oppression through the principle of homogenization.

The practice of Western artists' domination toward Balinese artists can take place because Western artists have power. Foucault (2002: 155) says that the practice of power is done to each individu, in a sense, that power must be able to gain access to individual bodies, actions, attitudes, and models of everyday behavior. Spies and Bonnet implant modern art ideology to Pitamaha artists through disciplinary practices. Pitamaha artists are taught and controlled about ways to draw objects based on modern art rules. Pitamaha artists want to accept the rules of modern art because Spies and Bonnet are seen as experts in the work of art and art knowledge. This Western artist is also considered to have the ability to sell Balinese artists' artwork. In addition, Balinese artists view modern art as an art of progress, development, dynamic, so it must be used as a reference. Positioned like that, Spies and Bonnet have the power to regulate Balinese artists. Foucault in Martono (2014: 55) says that knowledge is a weapon of power.

Pitamaha's artist accepts advice from Spies and Bonnet because it is seen as a truth. They, without feeling forced, imitate the rules of modern art, both object drawing, lighting, and anatomical techniques. But in this imitation, the rules of modern art were adjusted and mixed with the rules of Balinese painting so that glocalization took place. The practice of glocalization in Balinese painting is inseparable from the role of compradors. Compradores are people who act as agents or intermediaries for foreign organizations involved in investment, trade, or economic or political exploitation. (https://en.wikipedia.org/wiki/Comprador#References) accessed May 25, 2019.

When Spies and Bonnet instilled the ideology of modern art with the artist Pitamaha, they used the Ubud castle as a comprador. Cokorda Gede Agung Sukawati, ruler of the Ubud castle, acts as a comprador who connects Spies and Bonnet with Balinese artists. This can be seen from the blessing of the desire of Spies and Bonnet to establish the association of

Pitamaha artists in 1936. Puri also facilitated the place and entrusted Spies and Bonnet to teach the rules of modern art (Couteau, 2003: 125). Puri Ubud mandates Spies and Bonnet to teach the rules of modern art to be seen by Pitamaha artists as a decree that must be accepted. Therefore, they accept the rules of modern art taught by Spies and Bonnet. Thus, the acceptance of Pitamaha artists against modern art cannot be separated from the views of Balinese people towards the ruler or king as the god of nyalantara or a down to earth god (Atmadja, 2010: 29).

Glocalization Process

Glocalization raises cross-cultural dialogue. In cross-cultural dialogue, there are two important things, namely 1) interaction and dialogue between various local cultures and; 2) awareness alternative concepts and practices (Fernandez, 2009: 46-47). In the interaction of local cultures, where cultures are different but they be aware have similar cultural elements. For example, local culture has elements in common with global culture. While awareness builds on alternative concepts and practices, different and even conflicting cultures can mix if the two cultures build awareness to carry out alternative concepts and practices. By building alternative concepts, the two cultures are able to compare, see the differences, and evaluate those differences critically. Thus, both cultures can interact democratically. Both cultures are able to express and maintain, and explore their respective cultural concepts and are able to adopt other cultural concepts and practices.

The practice of interaction between the rules of modern or global art and Balinese art can occur because Balinese artists see that Balinese art has the same elements as global art. These elements include: visual elements - lines, fields, shapes, colors, textures, and others (Dharsono, 2007: 71-75).

Awareness builds alternative concepts and practices because global art has the principle of compilation — composition, balance, and others — in contrast to Balinese art. For example, global art glorifies rationality and carries a secular nature, very different from Balinese art as a medium for delivering religious messages and full of symbolic meanings. Global art carries the principle of form follows function, while Balinese art carries the form principle follows meaning (Piliang, 2010: 157). Although global art and Balinese art have differences, global art can be mixed with Balinese art. This can not be separated from the awareness of Balinese artists to build alternative concepts and practices, so that the glocalization between global art and Balinese art can be realized.

The process of glocalization is carried out in three stages, namely the stage of adoption (adopt), the stage of adaptation (adapt), and the advanced stage (adept) (Barry, 2010: 228). At the stage of adoption, Balinese artists took elements and rules of global art. Then the elements and rules are adjusted to the rules of Balinese art in order to appear harmoniously with the basic elements in Balinese art. In the last stage, after proficient at drawing global objects, Balinese artists sought to create visual forms based on their own characteristics. In this stage, artists are no longer under the control and licensing of global power, but create a visual form independently.

Cross-Cultural Dialogue in Balinese Art

Glocal Objects of Balinese Art

Object is something that is used as the main benchmark for making fine art. The object can

be human, plants, animals, objects, and scenery. The object in Ketut Sadia's painting entitled "Sepak Bola" in 2017 is a football player. The soccer game is held on a field consisting of two teams. The left side of the team wore a red shirt, blue pants, while the right side team wore a brown shirt and white pants. The second flag of the squad is fixed on the edge of the field. Helicopters containing cameramen are on the field. The audience with a variety of costume styles filled the edge of the field. Both teams, flags, and helicopters are global objects adopted by Ketut Sadia.

The global object is then adapted into Balinese aesthetic rules. The soccer player is drawn with reference to the puppet perspective, namely the head is drawn three quarters of the part, the body and legs are drawn from the front. The object is arranged by spreading to meet the image area. The center of attention is built by giving colors and bright light to the main object to be different from the audience as the background. The depiction of objects in the painting "Sepak Bola", displays the distinctive characteristics of Ketut Sadia, both object visualization, coloring, and the principle of structuring, both in composition, in perspective, proportion, and anatomy. His expertise shows his own characteristics, so that Ketut Sadia has his own idiolek which is different from other painter idiols. Disclosure of self-identity, in art, is very important because it is a branding for the painter himself.

Themes in Balinese Painting

Theme is a main idea or idea of a thing, one of them in painting. Like, the theme in I Ketut Lasia's painting entitled "The Ten Lepers". Ketut Lasia draws the theme The Ten Lepers based on Christianity. He drew the theme, because Lasia was a Christian who lived in Peliatan Village, Ubud. The Ten Lepers is a global theme that describes the figure of Jesus and his followers in dealing with lepers. This global theme was adopted by Lasia. The next stage is to adapt the theme of The Ten Lepers by describing the figure of Jesus and his followers wearing Balinese traditional attire. Leprosy sufferers and objects on the backgrounds are drawn based on the rules of Balinese art. The figure of Jesus as the main object is drawn bigger than the other objects.

Objects are drawn by referring to the law of linear perspective, but with calculated calculations. That is, the comparison of the magnitude of the objects that are in front, in the middle, and far behind is not based on mathematical calculations or almost the same. Humans are drawn by referring to the rules of modern proportions, but comparisons between parts of one another are also estimated (Couteau, 2003: 126).

The Ten Lepers theme is drawn with reference to Balinese aesthetic rules, so this global theme is often suspected of being a local theme. This is a form of adoption, adaptation, and proficiency of Balinese painters processing global themes so that they appear like Balinese local paintings.

Works: Ketut Lasia; Title: Football Match (Left); The Ten Lepers (Right)

Techniques

Techniques in fine art are ways that are carried out to realize a work of art. Techniques known in painting, among others, techniques In this case discussed various techniques in fine arts, namely plaque techniques, collage techniques, and transparent techniques. But related to modern Balinese painting, the technique used is a transparent technique. Thin paint is satisfied with the surface of the fabric to produce color on a transparent surface.

Before being given color, several steps must be taken in Balinese painting, namely, to touch, to be married, to blur, to be nurtured, and to flash. Nyeket is making contour lines using a pencil to determine the composition, proportion, and perspective perspective. Nyawi is a member contour process using pens and Chinese ink. Nyelah is the process of sorting objects in front of and behind using Chinese brushes and inks. Ngabur, the process of emphasizing detail, anatomy and lighting, using brushes and Chinese ink. Nguwarnain, the process of giving color to objects and backgrounds. Nyenter, the process determines and confirms the effect of light exposed to the object. In the wayang theme, Balinese painting knows no lighting techniques. All bright objects are drawn with the same intensity of light and darkness.

After being influenced by modern painting taught by Spies, Balinese painting (Ubud style and Batuan) adopted lighting techniques or chiaroscuro. The light source as if it comes from the sun, which is located far from the object, so that light hits objects with the same intensity. But around the 1980s a new variant of lighting techniques emerged. As seen by a painting by Nyoman Meja entitled "Kecak Dance of Children". In this painting, the table displays the effect of contrasting light, does not spread and is focused on a group of kecak dancers. The color of light is dominated by red. The table adopts lighting techniques ala European painters. In the world of European painting, it was known as a lighting technique by painter Rembrandt. Rembrandt was a Dutch painter, developing in the 17th century lighting techniques whose light came from torches or candles. The position of the light source is so lose to the object, so that the division between the light and dark fields is very sharp (Honor and John Fleming, 1982: 467). Rembrandt's lighting techniques, by the Desk, were then crossed with Balinese painting techniques, so that the Rembrandt lighting technique appeared that felt Bali.

Conclusion

Modern Balinese painting is one genre of Balinese painting that has the influence of modern painting taught by Western artists. Various visual elements and principles of education and modern techniques were adopted and adapted to the local aesthetic principles of Bali through the process of glocalization. Glocalization is done to build cross- cultural dialogue. Cultural dialogue appears in the mix of visual elements, themes, and lighting techniques. Cross-cultural dialogue on visual elements can be seen in the adoption and adaptation of object shapes. The theme can be seen from the emergence of the theme of Christianity that has never been known in Balinese painting. The Rembrandt torch lighting technique displays contrasting differences between light and dark fields.

Bibliography

Adnyana. I Wayan, dkk. (2017). "Seni Lukis Batuan" Laporan Penelitian. Denpasar: Dinas Kebudayaan Provinsi Bali. Amaladass, Anand. (2007). "Aesthetics and Religion from the Indian Perspective" dalam Guttorm Floistad Aesthetics and Philosophy of Art, Volume 9. The Netherlands: Springer.

Atmadja, Nengah Bawa. (2010). Ajeg Bali: Gerakan, Identitas Kultural, dan Globalisasi. Yogyakarta: LKiS.

Barker, Chris. (2004). Cultural Studies: Teori dan Praktik. (Nurhadi, Penerjemah). Yogyakarta: Kreasi Wacana.

Bandem, I Made. (1995). "Jati Diri Orang Bali dalam Perspektif Kesenian", dalam Wiryatnaya dan Jean Couteau, Bali di Persimpangan Jalan I: Sebuah Bunga Rampai. Denpasar: Nusa Data Indo Budaya.

Works: Nyoman Meja Title: Kecak Dance for Children

Barry, Peter. (2010). Beginning Theory: pengantar Komprehensif Teori Sastra dan Budaya. (Penerjemah: Harviyah Widiawati dan Evi Setyarini). Yogyakarta: Jalasutra.

Couteau, Jean. (2003). "Wacana Seni Rupa Bali Modern" dalam Aspek-aspek Seni Visual Indonesia. Yogyakarta: Yayasan Seni Cemeti.

Darsono, Kartika Sony (2007). Estetika. Bandung: Rekayasa Sains.

Dibia, I Wayan, "Nilai-nilai Estetiska Hindu dalam Kesenian Bali" dalam Triguna, 2003. Estetika Hindi dalam Pembangunan Bali. Denpasar: Program Magister Ilmu Agama dan kebudayaan Universitas Hindu Indonesia bekerjasama dengan Penerbit Dharma.

Djelantik, A.A.M. (1988). "Kecenderungan Perkembangan Seni Lukis Bali dan Ketahanan Gaya- gaya Tradisional" dalam Jiwa Atmaja dkk. Puspanjali: Persembahan untuk Prof. Dr. Ida Bagus Mantra. Denpasar: Penerbit Kayumas.

Djelantik, A.A.M., (1990). Balinese Painting. Singapore: Oxford University Press.

Fernandez, Sarah Elizabeth. (2009). A Theory of Cultural Glocality. Florida: University of North Florida Foucault, Michel. (2002). Wacana Kuasa dan Pengetahuan. (Yudi Santoso, Penerjemah). Yogjakarta: Bentang Budaya.

Gell, Alfred. (1998). Art and Agency: An Anthropological Theory. New York: Oxford University Press.

Giddens, Anthony. (2009). Konskuensi-konsekuensi Modernitas. (Nurhadi, Penerjemah). Yogyakarta: Kreasi Wacana.

Honour, Hugh dan John Fleming. (1982). The Visual Arts: A History. Second Edition. New Jersey: Prentice-Hall, Inc. https://en.wikipedia.org/wiki/Comprador#References) diakses 25 mei 2019

Martono, Nanag. (2014). Sosisologi Pendidikan Michel Foucault: Penegtahuan, Kekuasaan, Disilin, Hukum, dan seksualitas. Jakarta: PT. RajaGrafindo Persada. Piliang, Yasraf Amir. 2006. "Antara Hegemonitas dan Heterogenitas: Estetika dalam "Cultural studies" dalam Jurnal Kajian Budaya, Volume 3 Nomor 6 Juli 2006. Denpasar: Program S2 dan S3 Kajian Budaya Universitas Udayana.

Piliang, Yasraf Amir. (2010). Semiotika dan Hipersemiotika: Kode, Gaya dan Makna. Bandung: Matahari.

Ritzer, George dan Douglas J. Goodman. (2010). Teori Sosiologi Modern. Edisi Keenam. (Alimandan, Penerjemah). Jakarta: Kencana.

Rusbiantoro, Dadang. (2011). Bahasa Dekonstruksi ala Foucault dan Derrida. Yogyakarta: PT Tiara wacana

Sedda, Franciscu. (2015). "Forms of the World: Roots, Histories, and Horizons of the Glocal" dalam European Glocalization in Global Context. Roland Robertson (ed.). New York: Palgrave Macmillan

Suamba, I.B. Putu. (2003). "Siwa Nataraja: Simbol, Filsafat, dan Signifikansinya dalam Kesenian Bali" dalam Triguna Estetika Hindu dan Pembangunan Bali. Denpasar: Program Magister Ilmu Agama dan Kebudayaan Universitas Hindu Indonesia bekerja sama dengan enerbit Widya Dharma.

CULTURAL HERITAGE AS A MEDIA FOR LEARNING IN DEVELOPMENT OF LITERACY PROGRAM

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PREFACE

A high civilization nation is characterized by its people who have a high level of literacy. Through a high level of literacy, the nation will have life skills. So, it able to compete among other nations. How about people of Indonesia? As a large nation, Indonesia must be able to develop a culture of literacy as a prerequisite for life skills in face of competition in 21st century.[1]

What is the meaning of literacy? The Education Development Center provides a definition, as: "Literacy is the ability of individuals to empower all of their potentials and skills in their lives." UNESCO provides a definition of literacy, as: "A series of entities of ability for reading, writing and numeracy skills in accordance with context that is obtained and developed through learning and application processes in schools, families, communities, and other relevant situations (UNESCO, 2013)

For increasing capability in competency in 21st century, Indonesian people must prepare their selves on good quality. The good quality is needed because Indonesian people must be able to adapt with their social and natural environment. So, there are five basic characters that Indonesian people must be possessed, namely: religious, nationalist, independent, integrity, and mutual cooperation. The five basic characters must be built through a high-literacy society.

For this reason, government of Republic of Indonesia is promoting basic literacy movement, as a prerequisite for life skills in 21st century. The World Economic Forum, in 2015, has provided an overview of 21st century skills that should be possessed by all nations in the world. These skills include: basic literacy, competence, and character. In order to be able to survive in the 21st century era, people must possess six basic literacy, namely: language literacy, numeracy literacy, scientific literacy, digital literacy, financial literacy, and cultural and citizenship literacy. Through possession of six basic literacies, Indonesian people will have ability to be competent with other nations. These competencies include: critical thinking/

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1 *"Sambutan Menteri Pendidikan dan Kebudayaan". In Materi Pendukung Literasi Numerasi, 2017: v.*

problem solving, creativity, communication, and collaboration.

What kind of the Six Basic Literacies is? The explanation of them are follows.

1. Language Literacy

Language Literacy is a series of knowledge and ability to read and write, process and understand information while carrying out of reading and writing, and ability for analysing, responding, and using language.

2. Numeracy Literacy

Numeracy Literacy is knowledge and ability to use various numbers and symbols that related to numbers and basic mathematical operations (plus, minus, times, divided by) and ability to use numerical meanings and symbols to analyse information and solve problems in everyday life.

3. Science Literacy

Science Literacy is defined as knowledge of basic of various branches of science and ability to apply basic science in everyday life through identifying questions, interpreting scientific and evidence data, and making conclusions that relating to social and nature reality.

4. Digital Literacy

Digital Literacy is knowledge of basics of information and communication technology and ability for using digital media, communication tools, or networks to find, evaluate, use, make and use information in well, wise, intelligent, careful, precise, and obey the law in order to foster communication and interaction in everyday life.

5. Financial Literacy

Financial Literacy is knowledge about formulation of concepts and financial goals as well as entrepreneurial practices and ability to regulate to produce, manage, invest, and contribute money.

6. Cultural and Citizenship Literacy

Cultural and Citizenship Literacy are knowledge of histories, arts, traditions and values, rights and obligations of Indonesian citizens, and ability to know, understand, appreciate, and active participation in culture, national values, and citizenship values, and behave according
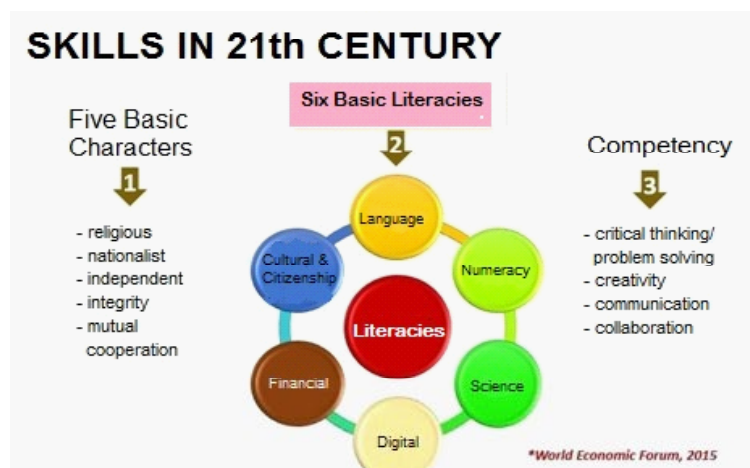
to cultural values and formal regulations that applied in Indonesia.

At present the government has difficulties in providing learning media of literate for its people. On the other hand, Indonesia has many cultural heritages that spread in many provinces, such as: Borobudur Temple (Central Java Province), Prambanan Temple (Yogyakarta Special Region Province), Siak Sri Indrapura Palace (Riau Province), Taman Ayun Temple (Bali Province), etc.

At present, subject of history in schools only explain that cultural heritage of ancient buildings are part of mere historical events. Whereas many aspects of science can be revealed behind cultural heritage buildings. We can study various aspects of science outside of history, such as math, physics, chemistry, socio-culture, and others. In the field of math, we can study geometry and measurement of space. In the field of chemistry, we can study rock process. In socio-cultural field we can study reliefs that carved on walls of temple, so that we can reconstruct human life in the past.

CULTURAL HERITAGE BUILDING AND SCIENCE

Indonesia has many cultural heritage buildings that are decades or hundreds years old. Although it has stood as a magnificent building for decades, even hundreds of years, many aspects of science can be explored. and be used for present-day knowledge. Even though, at this time school has not looked existence of cultural heritage buildings as mere historical learning media. For this reason, people need to be given explanation and information, aspects of what knowledge can be expressed from cultural heritage buildings. This has also been disclosed in Republic of Indonesia Law Number 11 of 2010 concerning Cultural Heritage. In Article 85 Paragraph 1, it is stated that Government, Regional Government, and everyone can use Cultural Heritage for religious, social, educational, scientific, technological, cultural and tourism purposes.[2] Thus, this article explains if science that can be expressed in cultural heritage buildings.

These below are some examples of science that can be revealed from two cultural heritage buildings that have been listed as world heritage by UNESCO, i.e. Borobudur Temple and Prambanan Temple.

1. Borobudur Temple

Borobudur Temple is located in Magelang Regency, Central Java. It is the largest temple in the world which was built in the 8th century by Syailendra Dynasty. Borobudur Temple is also an example of the peak attainment of harmony of architectural techniques of Buddhist in Java. The temple was inspired by idea of dharma teaching of Buddhist from India, namely stupa and mandala, and punden berundak from Indonesian prehistoric period.[3]

Borobudur Temple is called the largest temple in the world because its site is 123 m long, 123 m wide, and 34.5 m high. This temple consists of 10 levels. The bottom seven levels are square and the upper three levels are circular. [4]

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2   *Republik Indonesia. 2010. Undang-Undang RI tahun 2010 tentang Cagar Budaya. Jakarta: Kementerian Hukum dan Hak Asasi Manusia, Lembaran Negara RI Tahun 2010 Nomor 130.*

3   *"Borobudur Temple Compounds". UNESCO World Heritage Centre. UNESCO. Accessed on 28 December 2008.*

4   *Misteri Pembuatan Candi Borobudur. 8 March 2011. http://manajemenproyekindonesia. com/?p=524,*

Photo 1. Borobudur Temple

a. Mathematics

Construction of Borobudur Temples as a huge dimensions (123 m long, 123 m wide, and 34.5 m high) certainly requires complex and detailed mathematic calculations, especially those relating to geometry and measurement. Such as: how to divide terraces of buildings so as to form 10 levels; how to divide angles to place 72 stupas on circular terraces; calculate volume of andesite stones needed; technique that is used to produce a symmetrical square plan and a perfect circle plan; etc.

The example of complex and detailed mathemathic calculation is in circular terraces or Arupadhatu area, where are 72 stupas were placed. Geometrically, the number of circular

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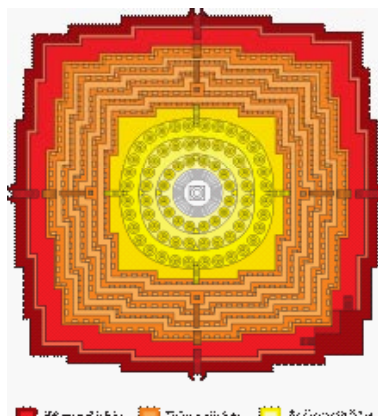
stupas are 32, 24, and 16. The placement of these stupas has a regular comparison, namely: 4: 3: 2, and all are divided into 8.

Picture 1. Site of Borobudur Temple

b. Physics

Borobudur temple was established actually on a hill that was stacked with very large

quantities of andesite stones, which is around 55,000 m3. Even though in that time there was no technology to remove andesite stone using pulley technique. It is estimated that the stones were lifted up the hill with simple mechanics.

To be able to build a temple on it, the hill at thus location must be engineered, there were places that must be covered and the other places that must be trimmed. Therefore, it was needed science about good soil because they must replaced a huge andesite stones that were stacked on top stable. If the stones were not stable, they would slide down because the soil was not strong enough to withstand loads of andesite stones.[5]

c. Chemistry

The main material for constructing the temple are andesite stones, that were obtained from two large rivers nearby the temple, namely Progo and Elo. Andesite stone is a type of volcanic igneous rock (Blatt and Tracy, 1996). Andesite stones are widely used to construct the temples because they are strong, hard, and resistant to weathering. It is diferrent with brick or white stones that will be weathered easier than andesite stones. Nonetheless, constituent stones of the temple will run into weathering naturally due to heat of sunlight, rain, and moss growth.

d. Socio-cultural

Walls and balustrades of Borobudur Temple were not plain, but were filled with reliefs/ There are 1,460 relief panels, which contain stories of Buddhist teachings, namely: Karmawibhangga (160 panels), Lalitawistara (120 panels), Jataka (720 panels), and Gandawyuha (460 panels). The reliefs revealed various aspects of Javanese people's lives in the past, especially technology that developed at the past time, such as: houses, ships, weapons, and others. Ship relief ... which is typica ...

Photo 2 and 3. The shape of ships that used for voyage of Nusantara people in 8th century, based on relief of Borobudur Temple.

2. Prambanan Temple

Prambanan Temple, also called Loro Jonggrang Temple, is located on the border between

5   Budi Suanda, 2011. *Misteri Pembuatan Candi Borobudur. 8 Maret 2011. http://manajemenproyekindonesia. com/?p=524, assessed on 22 June 2018*

6   *"The Borobudur Ship Expedition, Indonesia to Africa 2003-2004". The Borobudur Ship Expedition. 2004. Assessed on 14 December 2018.*

Yogyakarta Special Region Province and Central Java Province. It is the largest Hindu temple in Indonesia, that was built in the 9th century AD, for offerings to gods of Tri Murti, i.e.: Brahma, Wisnu, Siwa. The temple is actually a complex of 240 temples. There are three main temple in Prambanan complex, i.e.: Brahma Temple, Siwa Temple, and Wisnu Temple. The Siva Temple as the main temple of this temple complex has a height of up to 47 m The complex of P   es, namely: outer courtyard (390 m x   l courtyard (110 m x 110 m).[7]

Photo 4. The Complex of Prambanan Temple

a. Mathematics

The most visible aspect of mathematics in Prambanan Temple is the science of solid figure. Solid figure is knowledge about objects that have volume, such as: cubes, cuboid, cylinder, cone, prism, pyramid, sphere, etc. The temples inside of Prambanan complex are basically pyramid with a square base. Geometrically, the Prambanan Temple Complex resembles a symmetrical pyramid.

b. Physics

Like Borobudur Temple, Prambanan Temple is also composed of andesite stones. The andesite stones are arranged without using cement or other adhesives, but can be arranged into tall and slender buildings. Siwa Temple, as the main temple of Prambanan Complex, reaches 47 m in height.

Unlike Borobudur Temple, which was built on a natural hill, Prambanan Temple was built on flat land and was strong enough to be constructed of a huge and tall temple. The other difference, Borobudur Temple does not have a room inside, while Prambanan complex, each temple has a chamber inside it, for placing of god's statues. To arrange andesite stones that not use adhesives on the   uired complicated physics calculations. The stones that construct up o   ade interconnected and overlapped. So, they can overcome burden of   of the chambers inside of the temples.

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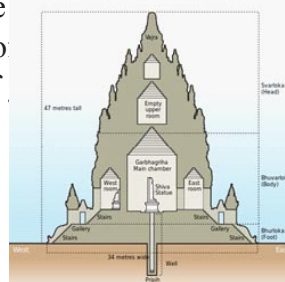
7   *Prambanan Temple Complex. http://www.borobudurpark.co.id/prambanan-temple-complex.html. Assessed on 14 December 2018*

Picture 2. The chambers inside of Siva Temple, in Prambanan Complex

c. Chemistry

The same with Borobudur Temple, the main material for constructing Prambanan Temple is andesite stone, which is also obtained from a nearby large river, Opak River, to the west of the temple complex. Andesite stones are widely used to construct temples in Central Java, East Java, and Yogyakarta because they are strong, hard, and resistant to weathering. Those area are close to volcanos which removing many volcanic materials, includes andesite stones.

d. Socio-cultural

Walls and balustrades of complex of Prambanan temple are also filled with reliefs that depicting stories of Ramayan[...] [...]liefs revealed various aspects of Javanese people's lives in the [...] war, houses, containers for daily needs, etc.

Photo 5. Shape of a house on relief of Prambanan Temple

CONCLUSION

As a big nation, Indonesian people must be able to develop a cultural of literacy as a prerequisite for life skills in the face of the 21st century, especially Six Basic Literacies (language, numeracy, scientific, digital, financial, and cultural and citizenship). History subject at school is a part of cultural and citizenship literacy. But at this time history subject seemed to explain that a cultural heritage building is a mere historical event only. Even though, there are many aspects of science that can be revealed from cultural heritage buildings. The two examples above, Borobudur Temple and Complex of Prambanan Temple, show that we can learn various other sciences outside of history, such as: mathematics, physics, chemistry, socio-culture, and others.

By studying various sciences outside of history in cultural heritage buildings, we can find mastering of six basic literacies. In addition, by understanding the various sciences of the cultural heritage building, we can develop and utilize science for a better future.

REFERENCES

Blatt, Harvey and Robert J. Tracy. 1996. Petrology. Igneous, Sedimentary, and Metamorphic, 2nd. New York, Basingstoke: W. H. Freeman & Co.

"Borobudur Temple Compounds". UNESCO World Heritage Centre. UNESCO. Accessed on 28 December 2008.

Prambanan Temple Complex. http://www.borobudurpark.co.id/prambanan-temple-complex. html. Assessed on 14 December 2018

Prambanan_Cross_Section_Shiva. https://upload.wikimedia.org/wikipedia/ commons/9/99/ Prambanan_Cross_Section_Shiva.svg. assessed on 13 December 2018.

Republik Indonesia. 2010. Undang-Undang RI tahun 2010 tentang Cagar Budaya. Jakarta: Kementerian Hukum dan Hak Asasi Manusia, Lembaran Negara RI Tahun 2010 Nomor 130.

"Sambutan Menteri Pendidikan dan Kebudayaan". In Materi Pendukung Literasi Numerasi, 2017: v.

Suanda, Budi. 2011. Misteri Pembuatan Candi Borobudur. 8 March 2011. http:// manajemenproyekindonesia. com/?p=524, assessed on 22 June 2018.

"The Borobudur Ship Expedition, Indonesia to Africa 2003-2004". The Borobudur Ship Expedition. 2004. Assessed on 14 December 2018.

UNESCO, 2013

World Economic Forum. 2015

THE RELATIONSHIP BETWEEN THE DURATION OF FOLLOWING YOGA PRACTICE AND LEVEL OF ANXIETY IN ELDERLY IN YOGA GROUP PAKRAMAN VILLAGE, KETEWEL, GIANYAR.

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Abstract. As we get older, the level of anxiety that we experienced is increase. Anxiety is one of the main factors that causes a psychological disorder in the elderly. One of the most effective exercises which can decrease the level of anxiety is Yoga. Yoga is a great example of developing cultural approach in Bali which is believed to have many benefits to improve our quality of life, especially in reducing anxiety levels in the elderly. The purpose of this study is to determine the relationship between the duration of following Yoga practice and the level of anxiety in elderly in Yoga Group Pakraman Village, Ketewel, Gianyar.

This study used a cross-sectional analytic study design. The type of Yoga carried out in this study is Laughter Yoga. The measurement that is used to measure the level of anxiety is Hamilton Rating Scale for Anxiety (HRS-A). The sample in this study were all the elderly with age 60-75 years old in Yoga Group Pakraman Village, Ketewel, Gianyar. The number of samples are 70.

The results of data analysis with Chi-Square Test for the relationship between the duration of following Yoga on the level of anxiety in elderly in Yoga Group in Pakraman Village, Ketewel, Gianyar was statistically significant with a p value of 0.003 (p <0.05). Participants who participated in Yoga with duration <6 months, there were 55.6% of them felling anxious, however, those who had taken Yoga >6 months only 19.2% felt anxiety.

There is a relationship between Yoga that have done with duration of more than 6 months with frequency of 2 times a week to reduce the level of anxiety in the elderly.

Keywords: Yoga, Elderly, Anxiety, Cultural

Introduction

Old age according to Law Number 13 at 1998 stated that the age of 60 is the category of old age (Kementrian Kesehatan RI, 2015). The process that occurs at this stage is natural as a human being, which is accompanied by a decrease in physical, psychological and social conditions that are interconnected with each other. This situation tends to potentially cause

general health problems and mental health specifically for the elderly. Decreased physical/physiological conditions that is experienced by the elderly are characterized by skin that begins to wrinkle, reduced vision and hearing, toothless teeth, fatigue, slow motion, and mental health problems. From year to year, the population of elderly in the world have been increasing, moreover the number of elderly people increases if it compares to other age categories (Karepowan, 2018)

According to Central Bureau of Statistics at 2015, currently Indonesia is among the top five countries with the highest number of elderly people in the world, reaching 7.6%. The number of the elderly at 2015 is 8,5%, and it is estimated that in 2020 the population will be 10%, it will be increase at 2025 by 11,8%, and it continues to 2030 by 13,8% and then at 2035 will be increase until 15,8%. The increasing number of the elderly shows that the life expectancy of the population in Indonesia is getting higher from year to year (Kementrian Kesehatan RI, 2015).

Anxiety is an unclear and diffuse concern related to feeling of uncertainty and helplessness. Symptoms of anxiety that is experienced by the elderly are irrational feeling of worry / fear about what will happen, insomnia, nervous and get angry easily, often complain of mild symptoms or fear and worry about severe illness and often imagine scary things / over panic about a big problem (Dariah, 2015).

In the American study, data showed that the incidence of anxiety in the elderly was 17.67%. Anxiety at the age of 50-64 years is greater than the age of more than 65 years with data 12.7% for ages 50-64 years and 7.6% for ages over than 65 years (Issue, 2008). In a recent study by Wolitzky and Taylor in 2010 reported estimates of the prevalence of anxiety disorders in the elderly, ranging from 3.2% to 14.2% (Wolitzky dan Taylor, 2010). Comorbidity survey replication (NSC-r) reports that 7% of elderly people over 65 years fulfilled the criteria for anxiety disorders in the past year (Gum, 2010). Based on the results of research by Wiyanto (2010), it shows that as many as 42% of 35 elderly experienced high levels of anxiety caused by various factors such as external factors such as threats to biological integrity and threats to self-concept and internal factors such as age, education status, economic status (Wiyanto, 2010).

Based on these data, the level of anxiety which is experienced by the elderly is quite high, anxiety can continuously affect quality of life, concentration and alertness, and also increase health risks so that can damage the functioning of the immune system. To overcome these problems, efforts are needed to reduce the level of anxiety which can be applied to the elderly, such as recreation with family, visiting places with the natural view, and the most important thing is doing some activities in order to relaxing mind and reducing stressed. One type of relaxation activity that is popular at the moment is Yoga.

Yoga is a technique that involves relaxation, meditation and a series of physical exercises carried out together with breathing to achieve physical, mental, social and spiritual comfort (Bhavanani, 2013). One type of Yoga that is popular among the elderly is the "Laughter Yoga". Generally, Yoga has a direct effect on sympathetic and parasympathetic nerve activity, by regulating respiratory effects on pranayama techniques, calming effects with dhyana techniques and physical movements that will reduce sympathetic activation, increase levels of Gamma Aminobutyric Acid (GABA), regulate Hypothalamus-Pituitary Adrenal (HPA) to provides anxiolytic effects (anti-anxiety) (McCall, 2013).

Several studies from the past two decades in various countries have reported that laugh has a positive effect on the body and strengthening the immune system as well. Laughter Yoga has a several unique techniques as follows; mind-body techniques and combines different methods of laughing with breathing exercises (Keykhai Hosseinpour, 2013). Some people who are pretend to laugh or be happy, their body will produce any chemicals, for instance, dopamine and serotonin that induce a state of happiness. Some researchers stated that the laughing is powerful in inducing physiological changes in our body (Memarian et al, 2017).

The duration of following Yoga can affect the level of anxiety of Yoga participants, where to assess a physical activity there are four things that must be considered as follows; the type of physical activity, frequency, intensity and duration (Mutohir, et al 2007). The duration of the exercise is included in one of the principles of exercise, where exercise carried out in a proportional period of time so that it causes physiological effects. Therefore, in this study the authors are interested in examining the relationship between the duration of following Yoga practice and the level of anxiety in the elderly at the Pakraman Village Yoga Group, Ketewel, Gianyar.

Method

The type of research design that is used in this study is analytical cross-sectional studies. This study uses Laughter Yoga as a popular Yoga technique among the elderly. In this study, dependent and independent variables are observed simultaneously. This research was conducted in February 2019 that is located on Wantilan Payogan Pura Payogan Agung Ketewel, Gianyar. The population in this study was elderly at the Pakraman Village Yoga Group, Ketewel, Gianyar. The sample in this study was selected from the population that had the inclusion criteria, as follows: (1) 60-75 years old, (2) Have done Yoga regularly for at least 4 weeks, (3) Willing to volunteer as a research subject until the end by signing an informed consent, whereas the exclusion criteria, as follows: (1) taking antidepressants and sleeping pills as and (2) following other sports programs besides Yoga.

The number of samples is determined using total sampling, where all Yoga participants who appropriate with the research criteria will be sampled in this study. The number of samples that appropriate the criteria were 70 people and all of them were directly used as research samples. The research variables consisted of independent variables, namely the duration of Yoga practice, while the dependent variable, namely the level of anxiety and the control variable is age. The instrument that is used during this study was the Hamilton Rating Scale for Anxiety (HRS-A) to measure level of anxiety. The validity of the HRS-A instrument is indicated by SPSS 16.00 in the Corrected Item-Total Correlation section, all questions have a positive value and are greater than the 0.05 requirement. Whereas reliability is indicated by the value of Cronbach's Alpha is 0.793 with the number of items 14 that are greater than 0.6, the questionnaire used is proven to be reliable (0.793> 0.6). Analysis of data on the relationship between the duration of following Yoga practice and the level of anxiety in elderly Yoga participants at the Pakraman Village Yoga Group, Ketewel, Gianyar, was carried out by the Chi-Square test.

Result

The sample characteristics in this research is there are 70 samples. Samples are female and male. Female samples are 52 samples (74,3%) and males are 18 (25,7%). Gender affects

anxiety levels and female gender has more influence on anxiety than men (Widiyaningsih, 2010). Based on the average age of the sample age is 64.50, where the youngest sample age is 60 years and the oldest is 72 years. Along with increasing age, many risk factors from various diseases will occur, mainly chronic diseases. Chronic disease is a disease where the onset takes a long time, that is commonly causes death (Yenny, et al 2006). According to Heidrich in the Abnormal Psychology book states that this will directly cause anxiety disorders or anxiety in the elderly regarding their health problems (American Psychological Association, 2010). Based on the duration of following Yoga practice, the sample who took Yoga exercises <6 months (less than six months) were 18 samples (25.7%). Samples that took Yoga practice >6 months (more than six months) were 52 (74.3%). The frequency of following Yoga practice per week also varies in each sample. Samples that took Yoga practice once a week were 11 samples (15.7%) and samples that took Yoga practice twice a week were 59 samples (84.3%). The results of the exercise can be improved if you pay attention in frequency, intensity, type of exercise and length of exercise (duration) (Bafirman, 2013).

Tabel 1. Sample characteristics

Variables	Frequency	Percentage (%)
Age Average ± SB = 64,50±3,20		
Gender		
Male	18	25,7
Female	52	74,3
Exercise Frequency per week		
1 time	11	15,7
2 times	59	84,3
Duration of Yoga		
<6 months	18	25,7
>6 months	52	74,3
Level of Anxiety		
Anxiety	20	28,6
Non-Anxiety	50	71,4

Yoga is a physical activity that is lower than moderate physical activity with a metabolic value equivalent to 3.0 MET. It takes about 50-60 minutes to do Yoga. The duration of the exercise has a relationship that is inversely proportional to the intensity, where if the exercise intensity is low then the exercise must be relatively long (Bafirman, 2013).

Discussion

The relationship between Yoga training and anxiety levels in the elderly at the Pakraman Village Yoga Group, Ketewel, Gianyar.

Tabel 2 Hypothesis Testing

	Duration of Following Yoga		P
	<6 months	>6 months	
Level of Anxiety			
Anxiety	10	10	0,003
Non-Anxiety	8	42	

Based on the results of testing the data with Chi-Square, it is known that the p value is 0.003 so that the value of p <0.05 means that there is a relationship between Yoga duration and anxiety level in the elderly at Pakraman Village Yoga Group, Ketewel, Gianyar.

Anxiety is a natural feeling which is experienced by every human being. Anxiety is a feeling that is general, where a person feels fear or loses self-confidence that is not clear about the origin or form. Anxiety is a response to certain threatening situations, and it is a normal thing that happens along with developments, changes, new experiences or that have never been done and the way to finding self-identity, meaning of life as well. Anxiety can cause body reactions that will occur repeatedly such as feeling empty in the stomach, shortness of breath, palpitations, sweating a lot, headaches, often feeling like wanting to urinate or defecate (Parshad, 2011). This feeling accompanied by the feeling of wanting to avoid something that is worried about. Anxiety is a non-specific symptom and autonomic nerve activity responds to obscurity, non-specific threats that are often found and it is a normal emotion (Yulinda, 2017).

Yoga is a process of unification of body, mind and spirit. Yoga exercises emphasize concentration which has a positive effect, namely peace of mind. Concentration can be a means of relaxing the mind that is needed by a stressed and anxious mind (Yulinda, 2017). Yoga that occurs in the body begins with the creation of an atmosphere of relaxation of the conscious that systematically guides in a deep relaxed state. The creation of relaxation will eliminate the sounds in the mind so that the body will be able to release muscle tension. When the body begins to relax the breath becomes relaxed and deep, so the respiratory system can be more relax (Sangupta, 2012). The slowing down of this respiratory rhythm will make the heart rate slower and give a positive influence on the entire circulation system and heart to relax and experience the process of rejuvenation (Yulinda, 2017).

The most popular Yoga which is preferred by the elderly is Laughter Yoga. Some studies reported that laugh improves health by inducing the secretion of endorphins that reduce pain and promote the feeling of happiness. The secreted endorphins have been shown to help reduce pain. Indeed, laugh is regarded as a pain management technique that can be used for most incurable diseases. People who are regularly practicing laughter therapy can secrete endorphins with a simple smile. A few minutes of real laughing can induce the equivalent results as rowing or stationary biking for 10-15 minutes. For the elderly who are not able to exercise, laugh is a good secondary treatment option to reduce the level of anxiety (Keykhai Hosseinpour, 2013).

Laughter Yoga combines breathing techniques, relaxation and meditation and also stretching. Breathing quickly and superficially will reduce the amount of oxygen available and the brain will react to this in panic and can increase anxiety levels. Part of the process of panic and

anxiety is an increase in heart rate and an increase in blood pressure. Some researchers stated that by doing Yoga regularly can increase maximum expiratory pressure, maximum inspiration pressure, holding breath, regulating and balancing breathing patterns. Laugh increases ventilation and removes mucous plugs to help maintain air exchange which increases oxygen levels in the blood. In fact, when we laugh the air is completely expelled from the lungs and following that, carbon dioxide and water vapor is also emitted and replaced with oxygen. The oxygen becomes available to blood cells. The effects of laughter can benefit middle-aged people with chronic respiratory diseases, such as emphysema, and reduce the risk of infection and inflammation of the lungs (Keykhai Hosseinpour, 2013). The respiratory center will adjust the breathing rhythm, slow and rhythmic breathing will result in the integration of the autonomic nervous system and central nervous system due to rhythmic and proportional stimulation of the proprioceptor and visceral receptors and the vagus nerve (Yulinda, 2017).

By doing Laughter Yoga regularly can balance the autonomic nervous system, so that the body becomes more relaxed and the release of hormones that play a role in increasing blood pressure, such as the hormone adrenaline and epinephrine are more controlled. Yoga also increases the production of endorphins which are anxiety hormones that of course also reduce anxiety. Yoga exercises make the autonomic nervous system balanced and calm which is useful for reducing anxiety levels. The balanced sympathetic and parasympathetic activities will provide a calm reaction, in this case a calm mind, because emotions and mental activities are also influenced by breathing patterns. Increasing oxygen in the blood and the efficient use of oxygen by tissue will result in a better relaxation (Annapooma, 2015). Yoga is recommended because it has a relaxing effect that can improve blood circulation throughout the body. Smooth blood circulation, indicating a good heart work (Yulinda, 2017).

Due to reduced sympathetic activity, there will be a system of body homeostasis with an increase in parasympathetic activity that provides a relaxing effect, namely slowing the rhythm of the breath, heart rate, positive effect on the circulatory system and stimulating the release of prolactin and oxytocin. In the hypothalamus, oxytocin is made in the magnocellular neurosecretory cells in the supraoptic and paraventricular nuclei. Oxytocin can induce anti-stress and has an effect in reducing cortisol levels. By doing Yoga exercise can increase the levels of oxytocin in the blood, so that the anxiolytic effects released can reduce anxiety (Yulinda, 2017).

Yoga exercises can also increase various neurotransmitters and hormones including GABA, serotonin and dopamine. GABA works to reduce excessive excitement and activity in the central nervous system. The main function of GABA is to reduce aurosal and reduce aggression, anxiety and active excitation functions. Yoga is a unique method for balancing the autonomic nervous system and influencing physical disorders and disorders associated with anxiety. Yoga breathing techniques can increase the work of the parasympathetic nerves, provide a relaxing effect, stimulate the release of oxytocin and are also called Yoga breathing exercises. Relaxation increases activity in prefrontal cortex (PFC) and stimulates the thalamus which will increase the production and delivery of GABA throughout the central nervous system (Stephens, 2017).

Carrying out Yoga regularly and discipline can have a positive impact on reducing anxiety and helping improve work performance from the body's physiology. In this study it was

found that there was a significant decrease in the level of anxiety in participants who took Yoga >6 months, while <6 months was not significant. It shows that Yoga has more effect or influence if it done with the right dose and regularly. Several studies found that Yoga as an effective exercise in reducing the level of anxiety. One of the researches that was done with active-duty soldiers returning from Iraq and Afghanistan, participants were asked to take part in a regular Yoga practice while reintegrating back into the community. Participants reported an increased sense of control in their lives and a decrease in symptoms of both depression and anxiety, as well as other mental health conditions (Novotney, 2009).

This research still has limitations, as follows: (1) The study sample was determined by total sampling without randomization which took samples only from all Yoga participants at one Yoga group. (2) The number of samples is limited because there are only participants under the age of 60 years. (3) Researchers find it difficult to collect male samples, because most are women.

Conclusion

In summary, there is a relationship between the duration of following Yoga practice and the level of anxiety in the elderly at the Pakraman Village Yoga Group, Ketewel, Gianyar. The suggestions for future research are expected as follows ; (1) Researchers are expected to limit the range of the duration of following Yoga practice, (2) Researchers equalize the frequency of Yoga exercises carried out in a week, (3) Researcher should pay more attention to the daily physical activities that have been carried out by the sample, (4) Especially for Yoga participants are expected to do Yoga exercises with a longer duration with a frequency of at least twice a week, (5) It is expected that the number of samples in further research is more greater.

References

American Psychological Association. 2010. Understanding Anxiety Disorders and Effective Treatment : Washington DC

Annapooma, K dan Vasantalaxmi, K. 2015. Practice of Pranayama Physiological Approach. International Journal of Yoga and Allied Sciences. Volume 4 Issue 3.

Bafirman, H.B., 2013. Konttribusi Fisiologi Olahraga Mengatasi Resiko Menuju Prestasi Olahraga. Jurnal Media Ilmu Keolahragaan Indonesia. 3, Pp 41-47

Bhavanani, B.A. 2013. Application of Yoga as a Therapy. India: Puducherry.

Dariah, ED., dan Okatiranti. 2015. Hubungan Kecemasan Dengan Kualitas Tidur Lansia Di Posbindu Anyelir Kecamatan Cisarua Kabupaten Bandung Barat. Jurnal Ilmu Keperawatan. Volume III, No. 2.

Gum, AM. 2009. Prevalence Of Mood, Anxiety And Substance Abuse Disorders For Older Americans In The National Comorbidity Survey Replication. The American Journal of Geriatric Psychiatry, 17, pp.769-781.

Issue B. 2008. The State of Mental Health and Aging in America. National Association of Chronic Disease Directors.

Karepowan, SR., Wowor, M., dan Katuuk, M. 2018. Hubungan Kemunduran Fisiologis Dengan Tingkat Stres Pada Lanjut Usia Di Puskesmas Kakaskasen Kecamatan

Tomohon Utara. e-journal Keperawatan (e-Kp) Volume 6 Nomor 1. Universitas Sam Ratulangi.

Kementerian Kesehatan RI .2015. Pusat Data dan Informasi. Jakarta selatan

Keykhai Hosseinpour, A. (2013). Laughter Yoga exercises on psychomotor effects of Parkinson's patients. In Faculty of Physical Education and Sports Sciences (Isfahan University).

Madanmohan, Thombre, D.P., Balakumar, B., Nambinarayanan, T.K., Thakur, S., Krishnamurtthy, M., Chandrabose, A. 1992. Effect of Yoga training on reaction time, respiratory endurance and muscle strength. Indian J. Physiol Pharmacol volume 36.

McCall, C.M. 2013. How Might Yoga Work? An Overview of Potential Underlying Mechanism. J Yoga Phys Ther volume 3 issue 1.

Memarian, A., Sanatkaran, A., and Bahari SM. 2017. The effect of laughter Yoga exercises on anxiety and sleep quality in patients suffering from Parkinson's disease. Biomedical Research and Therapy. 4(7): 1463-1479.

Mutohir T.C. & Maksum A. 2007. Sport Development Index. Jakarta:PT INDEKS.53-55

Novotney, Amy. 2009. Yoga as a practice tool. November 2009 Monitor on Psychology, American Psychological Association.40(10), pp 38.

Parshad O, Richards A, Asnani M. Impact of Yoga on haemodynamic function in healthy medical students. West Indian Med J [Internet]. 2019 Mar;60(2):148–52. Available from: http://www. ncbi.nlm.nih.gov/pubmed/21942118

Sengupta P. Health Impacts of Yoga and Pranayama: A State-of-the-Art Review. Int J Prev Med [Internet]. Medknow Publications; 2012 Jul [cited 2019 Mar 2];3(7):444–58. Available from: http://www.ncbi.nlm.nih.gov/pubmed/22891145.

Stephens, I. (2017). Medical Yoga Therapy. Children. University of Virginia Medical Center, Charlottesville. pp 4(2); pp.12

Widiyaningsih N., 2010., Faktor-Faktor Yang Berhubungan Dengan Kecemasan Pada Lanjut Usia Di Panti Wredha Dharma Bhakti Kota Surakarta, Fakultas Ilmu Kesehatan; Universitas Muhammadiyah Surakarta. Pp 1-9.

Wiyanto. 2010. Hubungan Antara Tingkat Kecemasan Dengan Kecenderungan Insomnia Pada Lansia Skripsi: Universitas Dharma Bhakti Surakarta.

Wolitzky, Taylor, K.B. 2010. Anxiety Disorders In Older Adults: A Comprehensive Review. Depression And Anxiety, 27, pp.190-211.

Yenny., Herwana., Elly. 2006. Prevalensi Penyakit Kronis dan Kualitas Hidup pada Lanjut Usia di Jakarta Selatan : Jakarta. Bagian Farmakologi Fakultas Kedokteran Universitas Trisakti.

Yulinda, Purwaningsih, D., dan Sudarta, CM. 2017. Latihan Yoga Dapat Menurunkan Tingkat Kecemasan pada Siklus Mentruasi Remaja Puteri. ISSN 2354-7642 (Print), ISSN 2503-1856 (Online) Jurnal Ners dan Kebidanan Indonesia. Vol. 5, No. 1, Tahun 2017, 20-26.

YOGA SURYANAMASKAR TRAINING INCREASING FLEXIBILITY AND STRENGTH OF BACK MUSCLE, AS WELL AS LUNG VITAL CAPACITY OF UNIVERSITAS HINDU INDONESIA STUDENTS

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Abstract. Yoga has been believed to be able to improve physical health and fitness. This research aims to study suryanamaskar yoga training three times a week for six weeks in improving flexibility, back muscle strength, and vital lung capacity in Indonesian Hindu University students. This study uses a One-Shot Case Study design. The female subjects were 15 people, aged between. 18-25 years. Subjects were given treatment in the form of suryanamaskar yoga training with a duration of three times a week for six weeks. Flexibility, leg muscle strength, and vital lung capacity were measured before and after treatment. The results showed that there was an increase in the mean muscle strength and back strength, as well as significantly lung vital capacity (p <0.05). The percentage increase in mean flexibility, back muscle strength, and vital lung capacity respectively is 18.99%; 28.18%; and 9.59%. Conclusion, suryanamaskar yoga training three times a week for six weeks can improve flexibility and strength of back muscle, as well as lung vital capacity in Indonesian Hindu University students.

Keywords: Suryanamaskar Yoga, Flexibility, Strength of back muscles, Vital lung capacity.

Preliminary

Yoga originating from India is an exercise/physical, mental and spiritual activity that is 5,000 years old, aiming to transform the body and mind, control and achievement; harmony between humans and the universe with a holistic approach to health and well-being (Basavaraddi, 2013).

Sports that are carried out regularly and continuously will produce physiological changes, which can increase the area of movement of joints so that it can increase flexibility; increase muscle strength and endurance; improve nerve function in the form of faster reaction times and the ability to coordinate better muscle function; blood circulation becomes faster and smoother; improve heart function, work the heart becomes more efficient and there is a decrease in heart rate; and can also improve lung function due to the breathing muscles

becoming strong so that the diffusion process gets better and also increases oxygen consumption which will reach the maximum state which is known as maximum oxygen consumption (VO2-Max) (Giriwijoyo & Sidik, 2012; Kuntaraf & Kuntaraf, 2009).

Increased functional capabilities as a result of physical activity can be in the form of a variety of conditions involving 10 bio-motoric components (basic abilities of physical motion or physical activity of the human body), namely: durability, strength, explosive power, speed, flexibility, agility, accuracy, reaction time, balance, and coordination (Bompa and Haff, 2009). From the point of view of Sport Science, the components are physical fitness components (Giriwijoyo and Sidik, 2012). These components are needed by every human being to be able to perform physical activities efficiently and productively both while working and exercising (Nala, 2011).

One of the complete and easy-to-implement yoga movements is suryanamaskar. Suryanamaskar yoga is very useful for the body and is a very popular yoga training model by combining various benefits of asanas, pranayama and mudras simultaneously. Suryanamaskar Yoga is composed of 12 movement postures that can be done in the morning or evening facing the sun. Suryanamaskar's yoga movement will energize the neuro glandular and neuro muscular systems of the body, and regular training guarantees a balance of blood oxygen intake and harmonizes the entire body system, thereby refreshing or nourishing the entire psychosomatic system of the body (Basavaraddi, 2013).

The series of suryanamaskar movements that are carried out regularly and continuously are very useful to strengthen the main organs and the whole muscle, increase the flexibility of the spine and joints, improve breathing and heart rate; increase concentration and calm the mind against the problems faced (stress), and facilitate digestion (Rianti, 2009; Sindhu, 2013).

The results of the research on suryanamaskar yoga training conducted by Shankar and Pancholi (2011), showed increasing flexibility and increasing endurance of the upper body muscles, as well as reducing blood pressure. Furthermore, Mertayasa (2013) also reported the results of a four-week suryanamaskar yoga training study on 30 students, found an increase in vital lung capacity and flexibility.

The present study tested efficacy of regular practice of suryanamaskar in improving the cardio-respiratory fitness. The present study was conducted on 78 subjects, (48 males and 30 females). It was observed that 6 months of suryanamaskar practice decreases resting pulse rate and blood pressure. At the same time it increases cardio-respiratory efficiency and respiratory capacity as evaluated by bicycle ergometer and various lung functions tests, in both male and female subjects (Bhutkar et all., 2008).

Considering the enormous benefits of yoga on the physical individual, it is important to conduct a study of "Suryanamaskar Yoga Training Increasing the Flexibility and Strength of Back Muscles, and Lung Vital Capacity in Students of Indonesian Hindu University" to obtain scientific concepts about the benefits of suryanamaskar yoga training on chronic physiological responses body and can be used as a guide by yoga practitioners in an effort to improve physical fitness. The training provided lasts for six weeks with a frequency of three times a week, taking into consideration that according to Nala (2011) physical training is given within a period of 6-8 weeks and with a frequency of three times per week, the body

has been adapted to the training with constant results. The purpose of this study to determine the effects of suryanamaskar yoga training three times a week for six weeks can improve the flexibility and strength of back muscles and vital lung capacity in students of the Indonesian Hindu University.

Method

This research is a Quasi-experimental study with a One-Shot Case Study design (Nazir, 1999). The research subjects were 15 students (age of 18-25 years) of Yoga Student Activity Unit Indonesian Hindu University, before the treatment was carried out observations of limb muscle flexibility and strength, as well as vital lung capacity (pre-test). Then each subject was given the same treatment, namely suryanamaskar yoga training with a duration of three times a week for six weeks. Back muscle size and strength, as well as lung vital capacity, were measured after six weeks of training (post-test).

The research subjects conducted suryanamaskar yoga training for one hour, where there were as many as 12 series of movements ranging from the first movement to 12 movements, almost no interruption. However, each time a series of movements is completed, a break of 10 seconds is taken to regulate the breath. After completing a series of movements, continue with the next series of movements 12 times.

The measuring instrument used in this study for the flexibility test is sit and reachable in units of centimeters (cm) and back muscle strength tests using a back-lag-chest dynamometer with units of kilograms (Kg). While the vital pulmonary capacities-test uses a digital spirometer (Contec SP 10 W brand with units of mL).

The data obtained were analyzed statistically using parametric and non-parametric tests. A comparative test to compare the average data difference between before and after training for back muscle strength was used paired t-test because all data compared were normally distributed, while back muscle flexibility and vital lung capacity between before and after training were tested by the Wilcoxon test, because one of the data is not normally distributed. The significance limit used is $\alpha = 0.05$.

Results And Discussion

To find out the distribution of back muscle flexibility and strength data, as well as vital lung capacity pre and post training test, the Saphiro Wilk-test was used. Whereas to find out the difference in data pre and posttest the back muscle strength training was tested by parametric test with paired t-test, then for back muscle flexibility and vital lung capacity between pre and post training were tested with non-parametric Wilcoxon test. The test results are listed in Table 1.

Table 1. Differential Test Results for Average Back Muscle Detection, Back Muscle Strength, and Lung Vital Capacity between Pre and Post Training

Variable	Normality p Value (Saphiro Wilk-test)		Mean ± SD		Mean Difference	p Value
	Pre Test	Post Test	Pre Test	Post Test		
Back Muscles Flexibility (cm)	0,867	0,010	14,80 ± 4,77	18,27 ± 4,75	3,47	0,001
Back Muscle Strength (Kg)	0,615	0,116	45,73 ± 15,75	63,67 ± 14,46	17,94	0,000
Lung Vital Capacity (mL)	0,139	0,002	2073,33 ± 246,31	2293,33 ± 252,04	220,00	0,003

Table 1 shows the distribution of data on the initial flexibility test and strength of back muscle strength, as well as vital lung capacity, all of which were normally distributed (p> 0.05). Furthermore, the distribution of the final test data for back muscle strength is normally distributed, while the distribution of the final test data for spastic muscle flexibility and vital lung capacity is not normally distributed (p <0.05). The difference in the initial test data with the final test of flexibility and strength of the back muscles and vital lung capacity, the difference in data on all the different variables was significantly with a value of p <0.05. This means that there is an increase in the effect of suryanamaskar yoga training on flexibility and strength of the back muscles, as well as significantly vital lung capacity with a value of p <0.05.

Flexibility is the body's ability to extend itself to the fullest extent supported by the extent of movement in the joints. This ability is closely related to the ability to move large muscle groups and their working capacity and is also related to the ability to stretch muscles and tissues around the joints (Nala, 2011). The results of the research showed that there was a significant increase in the elasticity of the back muscles of 3.74 cm (18.99%). This means that there is an effect of suryanamaskar yoga training on the flexibility of the back muscles. These results are in accordance with the research conducted by Mertayasa (2013) on male students of SMAN 2 Bajra Buleleng, said that there was an increase in flexibility of the back muscles after suryanamaskar yoga practice. Research that is in line with the results of this study is Suharjana's (2013) study, of 20 boys and 20 girls in static stretching and dynamic stretching. Significant differences occur, namely on static stretching there is an increase in flexibility of the back muscles that are higher compared to dynamic stretching. This shows that static stretching exercises such as those performed on suryanamaskar yoga practice are better than dynamic stretches in increasing the flexibility of the back muscles. This also means that static stretching carried out regularly can increase the flexibility of the back muscles.

Yoga practice is a static stretch that involves a lot of flexion movements from the torso, which is the most important movement in everyday life. This means that torso movements

are very often and widely carried out in everyday life, both when working and exercising. Thus these muscles must be trained to be more flexible and stronger so as to reduce the possibility of injury (Answar, 1988). Furthermore Giriwijoyo (2007) states that one of the physiological changes from the effects of physical training is that the area of joints can be maintained or maintained and can even be increased, thus preventing stiffness of the joints and even increasing the flexibility which increases the possibility of movement.

The suryanamaskar yoga training that is carried out regularly causes the joints to be adapted to the given load which will stretch. This stretch results in an increase in the length of the sarcomere which is the basic unit of the length of the muscle fibers, especially in the meeting area between the muscle and the tendon (myotendinnous junction). Stretching the unit results in increased muscle length, and consequently an increase in elasticity of joint ligaments and capsules, namely the area that connects the bones so that the joint space is wider. An increase in elasticity of the ligaments together with increased flexibility (McArdle et al., 2010). Increasing joint motion space due to regular suryanamaskar yoga training will lead to increased flexibility in the back muscles.

Strength is defined as the maximum work produced by a muscle or group of muscles or it can also be defined as the ability of the neuromuscular system to produce an external resistance force (Bompa, and Haff, 2009). The results showed that after suryanamskar yoga training there was a significant increase in the strength of back muscles by 17.94 kg (28.18%) with a value of $p < 0.05$. This means that there is an effect of giving suryanamaskar yoga training to significantly increase back muscle strength.

This increase can be caused by the presence of detainees during suryanamaskar yoga movements during training in the form of internal detention from within the body itself, namely contraction of the back muscle group is held by contraction of other muscle groups and also the external prisoners from outside the body in the form of body weight themselves (trainees) when bending, looking up, and several other movements, and other external prisoners in the form of body movements, namely the back muscle group and also the arms that fight or push the flat plane. According to Nala (2011) muscle strength can be increased by giving prisoners internal and external to the muscles concerned. Internal detention in the form of detention from within the body itself, where contraction of a group of muscles is inhibited or opposed by contraction of other muscle groups, for example the right arm flexes the left arm. While external detainees, can from holding their own body weight when doing sit-down movements (sit ups), reject lift (push ups) and others.

Increasing the strength of the back muscles in this study is closely related also to the increased flexibility of the back muscles. Nala (2011) says that before exercising muscle strength, the muscles and ligaments that support the movement are strong in maintaining the balance and coordination of the desired movement. To get balance and coordination the flexibility of the muscles must be well trained first. Thus suryanamaskar yoga training is carried out, besides increasing muscle flexibility also increases muscle strength simultaneously.

Increasing the strength of the back muscles after training suryanamaskar yoga can also be caused by the enlargement of the back muscle group. The individual burden that occurs during suryanamaskar yoga training is the weight of the body of the trainee. The body burden will cause a very strong contraction when carrying out suryanamaskar movements that support the body so that the back muscles become strong. According to Bompa and Haff (2009) with

the presence of strong contractions there will be increased myofibrils which cause muscle fibers to become hypertrophy (increase in muscle fiber size), and this is one of the factors that affect muscle strength. Further said by Bompa and Haff (2009) an increase in muscle cross-sectional area is thought to contribute to increased muscle hypertrophy and is seen as a response to endurance training. Increasing the cross-sectional area of this muscle, will increase the number of contractile motor units and thus increase in the production of forces that play a role in increasing muscle strength.

Muscle hypertrophy resulting from physical exercise is also caused by an increase in contractile elements in muscle fibers (muscle active strength), thickening of the sarcolemma, and increased connective tissue between muscle fibers which causes increased muscle passive strength. Thus hypertrophy of muscle fibers leads to increased muscle active strength and increased passive muscle strength, i.e. the muscles become stronger and resistant to strain and the maintenance of muscle homeostasis increases so that endurance increases (Giriwijoyo & Sidik, 2012).

The biochemical changes from the effects of physical exercise include increasing the number of PCs (phosphocreatine), muscle glycogen, myoglobin, and enzymes that are important for aerobic processes (oxidative enzymes) contained in mitochondria. These oxidative enzymes can be doubled in aerobic-trained muscles. This will cause muscle strength to increase (Giriwijoyo & Sidik, 2012). Based on this description, the effects of suryanamaskar yoga training result in muscle hypertrophy which can increase the strength of the back muscles.

Lung vital capacity is the same as inspiratory reserve volume plus tidal volume (air coming out during normal breathing) and expiratory reserve volume, this is the maximum amount of air that can be removed from the lungs, after first filling the lungs to the maximum and then removing as much as the amount (Guyton & Hall, 2016). The results of this study indicate that after training yoga suryanamaskar there was a significant increase in lung vital capacity of 220 ml (9.59%) significantly with a value of $p < 0.05$. This means that there is an effect of giving suryanamaskar yoga training to significantly increase lung vital capacity.

Increased vital lung capacity is obtained after training, because suryanamaskar yoga training contains exercises in regulating breath, both breathing, holding, and exhaling. Breathing exercises in yoga training will adapt to contractions of the breathing muscles, this will certainly help develop the strength of the respiratory muscles, which will also have an effect on the process of diffusion (gas exchange) that is an increase in the maximum amount of air that can be inhaled and the maximum amount of air that can be exhaled or it can be said that lung vital capacity will also increase.

The process of inspiration and expiration is stated by Guyton and Hall (2012) depending on the strength of the respiratory muscles. Furthermore stated by Guyton & Hall (2016), the lung is one organ that does not have its own muscles, so one of the factors that affect the vital capacity of the lung is the strength of the respiratory muscles in the development and sucking of the chest cavity. Furthermore Fox (1983) also states the effect of physical exercise on the respiratory system is the change in lung volume (inspiration and expiratory reserve volume), this is due to an increase in the strength of the skeletal muscle that is responsible for the circulatory process.

In addition, the increase in lung vital capacity after training can also be caused by an increase

in lung function, the effect of breathing exercises on the training, which can affect the maximum air increase that can be inhaled or exhaled. Increased lung vital capacity after yoga suryanamskar training also occurs in male students of SMA N 2 Banjar Buleleng, reported by Mertayasa (2013), said that the adaptation of breathing muscles after being given training in yoga suryanamskar regularly is due to contraction of the diaphragm muscles and m.intercostalis eksternus that lifts the ribs at the time of inspiration, the chest cavity will enlarge and allow the lungs to expand maximally, thus optimizing the filling of air to the lungs, and the opposite occurs when contractions occur from m.rectus abdominis and m.intercostalis internus during expiration. Respiratory arrangements performed during suryanamaskar yoga allow the breathing muscles to contract and relax normally, so that the lung ventilation mechanism can function properly. Likewise the results of a study conducted by Akhtar et al. (2013) on yoga training on vital lung capacity, there was a significant increase in lung vital capacity after suryanamaskar yoga training.

With the strengthening of the breathing muscles, the ability of the lungs to breathe and exhale maximum air can be done well. This is reflected in the significant increase in lung capacity after the training of suryanamaskar yoga was regularly and programmed

Conclusion

Based on the results of the study it can be concluded that suryanamaskar yoga training three times a week for six weeks can increase flexibility and strength of the back muscles, as well as vital lung capacity in Indonesian Hindu University students.

Reference

Akhtar, P., Yardi, S., Akhtar, M. 2013. Effect of Yoga on Functional Capacity and Well Being. International Journal of Yoga. Vol. 6. No. 1: 76-79.

Answar, M.P. 1988. Memilih Atlet Untuk Menghasilkan Prestasi Prima Dalam Olahraga. Disampaikan pada Simposiun Olahraga di Surabaya.

Basavaraddi, Ishwar V. 2014. Yoga and Naturopathy. New Delhi: Central Council for Research in Yoga and Naturopathy. Government of India, Ministry of Health and Family Walfare. Deptt. of Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homoeopathy (AYUSH).

Bhutkar, P.M., M.V. Bhutkar, G.B.Taware, V. Doijad, & B.R. Doddamani. Effect of Suryanamaskar Practice on Cardio-respiratory Fitness Parameters: A Pilot Study. Al Ameen Journal Med.Sci. Volume 1, No. 2, 2008. Bangalore: Al Ameen Charitable Fund Trust.

Bompa, T.O., Haff, G. G. 2009. Periodization Training for Sports: Theory and Methodelogy of Training. Fifth Edition. USA: Human Kinetics

Giriwijoyo, S. 2007. Ilmu Faal Olahraga: Fungsi Tubuh Manusia pada Olahraga untuk Kesehatan dan Prestasi. Bandung: PT. Remaja Rosdakarya.

Giriwijoyo, S. Dan Sidik, D.Z. 2012. Ilmu Faal Olahraga (Fisiologi Olahraga) Fungsi Tubuh Manusia pada Olahraga untuk Kesehatan dan Prestasi. Bandung: Fakultas Pendidikan Olahraga dan Kesehatan Universitas Pendidikan Indonesia.

Fox, E.L. 1983. Sport Physiology. New York: CBS College Publishing.

Guyton, A. C., dan Hall, C. E. 2016. Buku Ajar Fisiologi Kedokteran. Jakarta: Penerbit Buku Kedokteran EGC.

Kuntaraf, J., Kuntaraf, K.L. 2009. Olahraga Sumber Kesehatan. Cetakan Kesepuluh. Bandung: Percetakan Advent Indonesia.

Martayasa, K. 2013. Pengaruh Pelatihan Yoga Asana (Suryanamaskar) Terhadap Kelentukan dan Kapasitas Vital Paru. Jurnal Jurusan Ilmu Keolahragaan. Vol. 1. No. 1.

Rantin, F. Hatha Yoga. Available from: URL: http://shidmayoga.wordpres.com/2009/12/28/ yoga [acces Marct 5, 2016].

McArdle, W.D., Katch, F.I., Katch, V.L. 2010. Exercise Physiology: Nutrition, Energy, and Human Performance. Seventh Edition. Philadelphia: Lippincott Williams and Wilkins.

Nala, N. 2011. Prinsip Pelatihan Fisik Olahraga. Kampus Universitas Udayana Denpasar: Udayana Univercity Press. p. 23-108.

Shankar, G. & Pancholi, B. 2011. Effect of Suryanamaskar Yoga Practice on the Heart Reath, Blood Pressure, Flesibility, and Upper Body Mucle Indurace in Healthy Adult. International journal of health sciences and research Vol. 01; issue 01; category: original research. 2011. Available from: URL: www.ijhsr.org/html_5.tml. [acces October 15, 2016].

Sindhu, P. 2013. Panduan Lengkap Yoga Untuk Hidup Sehat dan Seimbang. Bandung: Qanita

Suharjana, F. 2013. Perbedaan Pengaruh Hasil Latihan Peregangan Statis dan Dinamis Terhadap Kelentukan Togok Menurut Kelamin Anak Kelas 3 dan 4 Sekolah Dasar. Jurnal Pendidikan Jasmani Indonesia. Vol. 9. No. 1: 38-46.

BETEL LEAF AS AYURVEDA CAN BE USE AS AMEDICINE HEARTH DISEASE AND BLOOD VESSELS

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Abstract. Betel plants are tropical plants that spread widely to Indonesia, their heart-shaped leaves according to Ayurveda suitable for heart and blood vessel pain medications. The purpose of this study is to discuss whether betel leaf can be used as a medicine for diseases of the heart and blood vessels. Cardiovascular diseases (CVDs) are the highest cause of death in the world. Its development, especially in developing countries including Indonesia, is increasing, due to the tendency of consumption of people who tend to consume food and beverages which causes an increased risk of heart disease through dyslipidemia and oxidative stress. Dyslipidemia as a risk factor for heart disease encourages the formation of ROS that can oxidize lipoproteins to oxidized LDLc (Ox-LDLc), increase oxidative stress, prevent the balance status of pro-oxidant / antioxidant reactions to encourage endothelial cell dysfunction and contribute to atherosclerotic plaque formation. Betel leaves contain many bioactive molecules, have activities as antioxidants. Antioxidant activity of betel leaves can prevent lipid peroxidation, reduce oxidative stress, normalize lipid metabolism and prevent endothelial cell dysfunction. Conclusion, based on studies conducted, that betel leaf can be used as a medicine for heart disease and blood vessels.

Keywords: Betel Leaves, Antioxidants, Oxidative Stress, and Heart Disease.

Introduction

Heart disease / cardiovascular disease (CVD) is the number 1 cause of death globally. More people die every year from heart disease than other causes. An estimated 17.9 million people died of heart disease in 2016, representing 31% of all global deaths. Of these deaths, 85% are caused by heart attacks and strokes. (WHO, 2017). Disease development, especially in developing countries including Indonesia, is increasing. This is caused by unhealthy people's lifestyle, which is lack of physical activity, tobacco use, harmful use of alcohol, and unhealthy eating patterns. The people who tend to consume high fat instant food, drink alcoholic beverages and smoke. The effects of lifestyle like this increase the risk factors for heart disease through dyslipidemia and oxidative stress.

Dyslipidemia is an abnormality of lipid metabolism which leads to increased plasma cholesterol and triglyceride concentration. The most common lipid abnormality is the low concentration of HDL cholesterol (LDLc) followed by high concentrations of LDL cholesterol

with high total cholesterol levels being the last (Moor et al., 2017). Research over the past decade has clearly identified that dyslipidemia is a major risk factor for cardiovascular disease (Najafipour et al., 2016), because it can encourage the formation of ROS that can oxidize lipoproteins to oxidized LDLc (Ox-LDLc) (Kachhawa et al. 2018). Oxidative stress is a condition where the production of reactive oxygen species (ROS) is excessive for normal cell function (Norberg and Arnér, 2001). Oxidative stress is one of the main mechanisms that cause cardiovascular disease through endothelial cell dysfunction (Babal et al., 2006).

Ayurvedic is one of the Hindu religious scriptures which describes public health. Ayurveda treatment system uses a form of certain plant parts that are related to the shape of certain organs for the purpose of treatment. The heart shape of betel leaf is suitable for drugs / curative properties that are suitable for the heart (Kumar, et al., 2010). Betel (Piper betle L.) is an annual green plant that God creates with leaf shapes like the Heart. The heart shape of betel leaves is found in the ancient Sanskrit text Charaka, Sushruta Samhita and Astanga Hradayam (Dwivedi and Tripathi, 2014).

The use of traditional betel leaves is very promising, causing various chemical and biological studies carried out on betel leaves. From the results of the study it is known that, betel leaves contain active compounds, alkaloids, tannins, steroids and phenolics such as safrol, cavibetol, eugenol, isoeugenol, hydroxicavikol, alylpirokatekol, cavibetol, viverbetol and others (Arambewela et al, 2011; Vikash et al., 2012), has biological / pharmacological activities as antimutagenic, anticancerinogenic, antidiabetic, anti-inflammatory and anti-bacterial (Pin et al., 2010). From several published betel leaf biology activities, Kumar et al., (2010) show the medicinal properties of betel leaves as: antioxidants, hepatoprotective, anti-inflammatory and cardiovascular.

From the above, it is estimated that betel leaf can be used to cure heart disease, by reducing oxidative stress and normalizing lipid metabolism. Therefore according to the Ayurvedic concept, betel leaf, which is shaped like a heart, is curative to the heart. So this study will review betel leaf as a medicine to prevention of heart disease by normalizing lipid metabolism and reducing oxidative stress.

Betel Plants (Piper betle Linn) as Vedic Plant

Betel plants are tropical plants originating from Central and East Malaysia, cultivated throughout Malaysia and Tropical Asia more than 2500 years ago, and spread to reach Madagascar, and East Africa. Then it was introduced to West India (Pradhan et al., 2013). The spread of betel plants is widespread in South Asian regions such as India, Sri Lanka, and Southeast Asian regions including Indonesia to Papua New Guinea. It grows at an altitude of 60 - 300 m above sea level, propagating on other tree trunks to reach around 5-15 m (Anonim, 2011). They have a complete classification as follows:

Kingdom   : Plantae

Divisio   : Spermatophyta

Class   : Dicotyledoneae

Order   : Piperales

Family   : Piperaceae

Genus   : Piper

Species   : Piper betle L. (Backer and Van Den Brink, 1965; Arambewela et al., 2011).

Betel plants have weak stems with rough and wrinkled skin surfaces, with a brownish green, broad or large nodules where the roots come out (Ariftarisno, 2011; Anonim, 2011). The stemmed leaves are located alternating with heart shaped strands, pointed ends, flat edges, curved leaf bones, 2.5-10 cm wide, 5-18 cm long. The flowers are arranged in a grain that ducks in the length of 5-15 cm, individually at the end of the stem or the armpit of the leaf. The fruit is round, fleshy, continuous to be long and many lumps, greenish yellow (Anonim, 2011). The seeds are delicate oval to breech ovate rounded in lengths from 1.25 - 2.6 mm and diameter ± 2 mm (Heyne, 1987; Suliantari, 2009). The leaves contain secondary metabolites such as alkaloids, tannins, steroids, terpenoids and phenolics (Sugumaran et al., 2011; Pradhan et al., 2013) which cause betel leaves to have biological activities such as antibacterial, insecticidal, antioxidant, antinociceptive, antidiabetic, gastroprotective activity and anti-inflammatory (Arambewela et al., 2011; Pin et al., 2010).

Ayurvedic is one of the Hindu religious scriptures which describes public health. According to Nala (1991), Ayurvedic itself comes from Sanskrit namely Ayur which means life, vitality, health, or old age, while Weda means science, so Ayurvedic can be interpreted as knowledge about how humans can live healthy lives begin. In Ayurvedic, the purpose of treatment is to prolong human life (dirgayusa), while health is one of the vehicles to achieve the goal of life, namely happiness in the world (Jagadhita). Betel is also referred to as the Vedic plant by the name Saptasira (Chowdhury et al., 2011) and in Sanskrit is known as Tambool, Nagvelleri, Nagagini (Balkrishna, 2008). In Ayurveda medicine system, the properties of betel leaf describe as given below:

Guna (Quality)   :Laghu, Ruksha, Tikshan

Rasa (Taste)   :Tikta

Vipak (Metabolism) : Katu

Virya (Potency) : Ushan

Prabhav (Impact) : Hridya

were used as remedy against various diseases, and traditionally betel leaves are known to be useful to cure various diseases such as breathing, boils, constipation, headaches, hives, various types of inflammation, vaginal discharge, rheumatism, sores and can help provide protection against blood circulation (Pradhan et al., 2013). Ayurveda treatment system uses a form of certain plant parts that are related to the shape of certain organs for the purpose of treatment. The heart shape of betel leaf is suitable for medicine / curative properties that are suitable for the heart (Kumar, et al., 2010).

Dyslipidemia, Oxidative Stress and Heart Disease

Dyslipidemia is an abnormality of lipid metabolism which leads to increased plasma cholesterol and triglyceride concentration (Moor et al., 2017). Dyslipidemia as a major risk factor for cardiovascular disease (Najafipour et al., 2016), can encourage the formation of reactive oxygen species (ROS) (Kachhawa et al. 2018). Dyslipidemia is the most important

risk factor for atherosclerosis. LDL, VLDL remnants, chylomicron remnants, small dense LDL(sdLDL), Lp(a), and oxidized LDL are pro-atherogenic. Ox-LDL promotes endothelial cell dysfunction and contributes to atherosclerotic plaque formation (Gradinaru, 2015). Oxidative modified LDL causes to the formation of foam cells (Koba and Hirano, 2011), and oxidized lipids trigger the secretion of various growth factors by the endothelium, vascular smooth muscle cells of the media transform and migrate into the intima where they proliferate and actively produce extracellular matrix. These transformed vascular smooth muscle cells also take up oxidized LDL cholesterol (Ox-LDLc) and transform to form cells that contribute to atherogenesis. On the other hand, the proliferation of vascular smooth muscle cells and an increase in extracellular matrix may cause intimal thickening and atherosclerosis (Katakami, 2018).

Oxidative stress is one of the main mechanisms that cause cardiovascular disease through endothelial cell dysfunction (Babal et al., 2006). Oxidative stress is a condition in which excessive production of reactive oxygen species (ROS) causes concentration to exceed physiological concentrations needed for normal cell function (Norberg and Arnér, 2001). Oxidative stress also causes disruption of the oxidant balance system and intracellular antioxidants which are very important for the regulation function and adaptation to various cell growth conditions. Walczak-Jedrzejowska et al., (2012) states that oxidative stress is an imbalance between ROS production and the ability to prevent antioxidant systems that can neutralize and eliminate ROS. The production of excess intracellular ROS mediated by oxygen threatens the integrity of various biomolecules such as proteins, lipids and DNA (Norberg and Arnér, 2001).

Heart disease includes coronary artery disease, hypertension, congestive heart failure, and stroke, all of which are complications of atherosclerosis. Atherosclerosis is a multifactorial disease in which the molecular etiology of various risk factors. Among them are dyslipidemia and oxidative stress where in this state oxygen reactive species (ROS) are key mediators in the signaling pathways that underlie vascular inflammation in atherogenesis. Arterosclerosis starts from the initiation of the development of the fat layer and continues the development of the lesion until finally plaque formation (Madamanchi, et al., 2005).

Excessive ROS, oxidizing lipid molecules, proteins and DNA forming peroxidacillipids, protein perosidation and DNA fragmentation result in damage to endothelial cells, VSCMs or myocardial cells (Higashi et al., 2009) and finally atherosclerosis (Murray et al., 2009). Besides that the increase in ROS can stimulate the release of free radicals involved in activating inflammatory cells in the damage of edotel cells (Kutzing and Firestein, 2008), all of which encourage proinflammatory effects to form IL-1, IL-6 and TNF-α (de Oliveira and Burini, 2012). Oxidative stress also induces a variety of signaling cascades and redox sensitive transcription factors such as NF-KB, AP-1 causing expression of VCAM-1, ICAM-1 and MCP-1 damping genes, facilitating endothelial-leukocyte interactions and initiating the initial stages of the atherosclerosis process (Nedeljkovic et al., 2003). The expression of adhesion molecules such as VCAM-1 and ICAM-1 is also specifically induced by proinflammatory cytokines TNF-α and IL-6 to facilitate the recruitment and binding of leukocyte circulation in the vascular wall (Liao, 2013).

Betel leaves as a medicine for prevention of heart disease.

Betel leaves contain many bioactive phenol compounds, alkaloids, steroids, flafonoid, saponins and tannins, have biological activities such as: antioxidants, antiinflammatory, platelet antiagregation, increase endogenous antioxidants. Antioxidants are compounds that can inhibit oxidation reactions by binding to free radicals or highly reactive molecules such as reactive oxygen species (ROS) so they can prevent cell damage (Winarsi, 2007). ROS causes cardiovascular disease through lipid peroxidation, protein peroxidation, DNA damage and cellular degradation (Rahman, 2007). ROS can be cleaned with substances called antioxidants by reacting with ROS to produce species that are not reactive (Risdian et al., 2011). As long as betel leaf can reduce oxidative stress (ROS) to prevent lipid peroxidation, protein and DNA fragmentation inhibits the effects of inflammation to encourage the expression of IL-1β and TNFα which can stimulate ICAM-1 expression, and inactivate NF-KB transcription factors that play a role in controlling ICAM-1, VCAM-1 and MCP-1 expression, inhibit platelet aggregation, thromboxane B2 (TXB2), cyclooxygenase (COX-1 / COX-2) activity which in turn prevents atherosclerosis which is a major risk factor for heart disease. So that betel leaf can be used as a medicine / prevention factor for endothelial dysfunction vascular which then treats / prevents heart disease.

Betel leaf has antioxidant activity as shown by the results of research on the potential of antioxidant activity of betel leaf in vitro to systems such as DPPH radical scavenging, by Risdian et al., (2011) and Jaiswal et al., (2014) which shows the percentage of inhibit above 50% . Research by Majumbar et al., (2002) and Venkadeswaran et al., (2014) also showed that betel leaf can increase endogenous antioxidant activity, namely superoxidase dismutase (SOD) and catalase (CAT) activity in rats. The results of Chang et al. (2007) also show that betel leaf can inhibit platelet aggregation, thromboxane B2 (TXB2), ROS production and cyclooxygenase (COX-1 / COX-2) activity and platelet calcium signals so as to prevent intravascular thrombosis without affect haemostatic function.

Conclusion

Based on the study, it can be concluded that betel leaf as Ayurvedic have a form like the heart containing active compounds such as alkaloids, tannins, steroids, terpenoids and phenolics which cause betel leaves to have biological activities such as antioxidant, anti-inflammatory, inhibit platelet aggregation, increase endogenous antioxidant activity, prevent oxidized LDL cholesterol (Ox-LDLc), then betel leaf can be used as medicine for heart disease and blood vessels by reducing oxidative stress and normalizing lipid metabolism.

References

Anonim. 2011. Sirih (Piper betle L.). [cited 2012 Oktober 12] Available at : URL: http:// www.rhima-dhitz.blogspot.com/2011/08/sirih-piper-betle-l.html.

Arambewela, L.S.R., Arawwawala, L.D.A.M., Kumaratunga, K., Dissanayake, D., Ratnasooriya, W. (2011). Investigation on Piper betle grown in Sri Lanka. Pharmacognosy Reviews 5.10: 159-163.

Ariftarisno. (2011). Tanaman Obat Indonesia. [cited 2011 Mei 25] Available from: URL:

http://www.scribd.com/doc/52047948/Tanaman-Obat-Indonesia.

Babal, P., Kristova, V., Cerna, A., Janega, P., Pechanova, O., Danihel, L., Andriantsitohaina, R. 2006. Red Wine Polyphenols Prevent Endothelial Damage Induced by CCl4 Administration. Physiol Res 55:245-251.

Backer, C.A. dan Van Den Brink Jr, R.C. 1965. Flora of Java (Spermatophytes only). Vol 1. N.V.P. Noordhoff : Groningen.

Balkrishna, A. (2008). Secrets of Indian herbs for good health. Uttarakhanda: Divyaprakashan. pp 32.

Chowdhury, I.I., Amin, R., Binzaid, S. (2011). Optimal control on environments for Improving the Piper betel (paan) growth. Life Sciences Leaflets 60(17):5-615.

de Oliveira, E.P. and Burini, R.C. 2012. High Plasma Uric Acid Concentration: Causes and Consequences. Diabetology & Syndrome 4:12.

Dwivedi, V. and Tripathi, S. (2014). Review Study on Potential Activity of Piper betle. Journal of Pharmacognosy and Phytochemistry.3(4):93-96.

Gradinaru, D., Borsa, C., Ionescu, C., Prada G.I. 2015. OxidizedLDLandNOsynthesis— Biomarkersofendothelialdysfunctionandageing. Mechanisms of Ageing and Development 151:101–113

Heyne, K. 1987. Tanaman Berguna Indonesia. Jilid II. Badan Litbang Kehutanan. Jakarta.

Higashi, Y., Noma, K., Yoshizumi, M., Kihara, Y. 2009. Endothelial Function and Oxidative Stress in Cardiovascular Disease. Circ J 73:411-418.

Jaiswal, S.G., Patel, M., Saxena, D.K. and Nai, S.N. 2014. Antioxidant Properties of Piper Betel (L) Leaf Extracts from Six Different Geographical Domain of India. Journal of Bioresource Engineering and Technology 2(2):1220.

Kachhawa, K., Agrawal, D., Rath, B., Kumar,S. (2018). Association of Lipid Abnorrmalities and Oxidative Stress with Diabetic Nephropathy. Journal of Integraєve Nephrology and Andrology. 4(1):3-9.

Katakami, N. 2018. Mechanism of Development of Atherosclerosis and Cardiovascular Disease in Diabetes Mellitus. J Atheroscler Thromb. 25:27-39.

Koba, S., Hirano, T. 2011. Dyslipidemia and atherosclerosis. Nihon Rinsho 69(1):138-43

Kumar, N., Misra, P., Dube, A., Bhattacharya, S., Dikshit, M., and Ranade, S. (2010). Piper Betel Linn. a Maligned Pan-Asiatic Plant with an Array of Pharmacological Activities and Prospects for Drug Discovery. Current Science 99(7):922-932.

Kutzing, K. and Firestein, B.L. 2008. Altered Uric Acid level and Disease States. The journal of Pharmacology and Experimental Therapeutics 324(1):1-7. Kutzing, K. and Firestein, B.L. 2008. Altered Uric Acid level and Disease States. The journal of Pharmacology and Experimental Therapeutics 324(1):1-7.

Liao, J.K. 2013. Linking endothelial Dysfunction with Endothelial Cell Activation. J Clin Invest 123(2):540-541.

Madamanchi, N.R., Vendrov, A., Runge, M.S. 2005. Oxidative Stress and Vascular Disease. Arterioscler Thromb Vasc Biol. 25:29-38.

Majumdar, B., Chaudhuri, S.R., Ray, A., and Bandyopadhyay, S.K. 2002. Potent Antiulcerogenic Activity of Ethanol Extract of Leaf of Piper betle Linn by

Antioxidative Mechanism. Indian Journal of Clinical Biochemistry 17(1):49-57.

Moor, V.J.A., Amougou, S.N., Ombotto, S., Ntone, F., Wouamba, E.D. and Nonga,B.N. (2017). Dyslipidemia in Patients with a Cardiovascular Risk and Disease at the University Teaching Hospital of Yaoundé, Cameoon. International Journal of Vascular Madicine. 2017:1-5.

Murray, R.K., Granner,D.K., Rodwell, V.W. 2009. Biokimia Harper. Jakarta: Penerbit Buku Kedokteran. p.135.639.

Najafipour, H., Shokoohi, M., Yousefzadeh, G., Azimzadeh, B.S., Kashania, G.M., Bagheri, M.M. and Mirzazadeh, A. (2016). Prevalence of Dyslipidemia and its Association with other Coronary Atery Disease Risk Factor among Urban Population in Southeast of Iran: Results of the Kerman Coronary Artery Disease Risk Factor Study (KERCADRS). Journal of Diabetes & Metaboloc Disorders. 2016:15-49.

Nala, I Gusti Ngurah. 1991. Ayurweda Ilmu Kedokteran Hindu. Denpasar. Upada Sastra.

Nedeljkovic, Z.S., Gokce, N., Loscalzo, J. 2003. Mechanism of Oxidative Stress and Vascular Dysfunction. Postgrad Med J 79:195-2003.

Nordberg, J. and Arnér, E.S.j. 2001. Reactive Oxygen Species, Antioxidants, and the Mammalian Thioredoxin System. Free Radical Biology & Medicine 31(11):1287-1312.

Pin, K.Y., Lukman, C.A., Abdul, R.A., Mazura, M.P., Fadzureena, J., Vimala, S. & Rasadah, M.A. (2010). Antioxidant and anti-Inflammatory Activities of Extracts of Betle Leaf (Piper Betle) from Solvents with Different Polarities. Journal of Tropical Forest Science 22.4: 448-455.

Pradhan, D., Suri, K.A., Pradhan, D.K., Biswasroy, P. (2013). Golden Heart of the Nature: Piper betel L. Journal of Pharmacognosy and Phytochemistry 1(6):147-167.

Risdian, C., Widowati, W., Mosef, Tj.,Wargasetia, T.L., Khiong, K. (2011). Free Radical Scavenging Activity of Ethanol Leaves Extract and Its Different Solvent fractions of Piper betle L. In Vitro. Indonesian Journal of Cancer Chemoprevention 2(1):141-145.

Rahman, K. 2007. Studies on Free Radicals, Antioxidants, and Co-factors. Clin Interv Aging 2(2):219-236.

Sugumaran, M., Poornima, M., Venkatraman, S., Lakshmi, M., Srinivasansethuvani. 2011. Chemical Composition and Antimicrobial Activity of Sirugamani variety of Piper Betel Linn Leaf Oil. Journal of Pharmacy Research 4(10):3424-3426.

Suliantari. (2009). "Aktivitas Antibakteri dan Mekanisma Penghambatan Ekstrak Sirih Hijau (Peper betle Linn) Terhadap bakteri Patogin Pangan" (Disertasi) Bogor: Institut Pertanian Bogor.

Venkadeswaran, K., Muralidharan, A.R., Annadurai, T., Ruban, V.V., Sundararajan, M., Anandhi, R., Thomas, P.A., and Geraldine, P. 2014. Antihypercholes-terolemic and antioxidative Potentiol of an Extract of the Plant, Piper betle, and its Active Constituent, Eugenol, in Triton WR-1339-induced Hypercholes-terolemia in Experimental Rats. Evidence-Based Complementary and Alternative Medicine 2014:1-11.

Vikash, C., Shalini, T., Verma, N.K., Singh, D.P., Chaudhary, S.k., Asha, R. (2012). Peper

Betel: Phytochemistry, Traditional Use & Pharmacological Activity-a Review. IJPRD. 4(04):216-223.

Walczak-Jedrzejowska, R., Wolski, J.K., Slowikowska-Hilczer, J. (2012). The Role of Oxidative Stress and Antioxidants in Male fertility. Central European Journal of Urology 66(1):60.

Winarsi, H. 2007. Antioksidan Alami dan Radikal Bebas, Potensi dan Aplikasinya dalam Kesehatan. Yogyakarta: Kanisius. p. 9-108.

Wold Health Organization (WHO). 2017. Cardiovascular Disease (CVDs). [cited 2019 April 29]. Available From: https://www.who.int/news-room/fact-sheets/detail/cardiovascular-diseases-(cvds)

THE ROLE OF REPRODUCTION IN THE POPULARITY OF CEREMONIAL CRAFTING ART IN BALI

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Abstract. Before reproduction techniques were discovered, the means of carving wood and metal carving ceremonies were one of the ceremonial facilities which were very exclusive and it was only possessed by certain groups, namely the nobility and the rich. In quality, the ceremonial facilities were very unique and artistic with very religious characteristics. The process of making the ceremony facilities was done manually with a very high carving technique. The media used was the chosen material both in quality and value, such as Cempaka wood and silver. The quality of the work was very high making the price more expensive and it could be only reached by certain groups. This ritual means have indirectly two functions, such as practical and social functions. The practical function is used in accordance with its form and function; on the other hand, social function is used to show the stratification of the position of social status of life in society.

In line with the existence of technology, the process of performing ceremonial facilities have been carried out with reproductive techniques, namely the mold system using fiberglass media. Craftsmen only need one work as a master, then the mold is created and the work can be duplicated in sufficient quantities in the same form. The speed of production process indirectly influences the price of unique ceremonial facilities to be cheaper and it is able to be reached by all people. This significant change needed to be studied in depth to find out how the role of reproductive techniques in the popularity of ceremonial crafting art in Bali, and how they affected the social status of the supporting community. This research was expected to be used as references related to the production of current ceremonial facilities and their role in the social life of Balinese society.

Keywords: Reproduction, Popularity, and Ceremony Facilities.

Introduction

Ceremony is an inseparable part for Hinduism in Bali in which it is done every day for either big or small ceremonial category. Because of the amount of ceremony which are carried out, various forms, types, and function of ceremonial facilities are needed, called "Upakara". The form and type of upakara are heterogeneous in line with its function. Functionally, upakara is used as its practical function and as ceremonial facilities which have philosophical meaning. Practical function is a means used directly as offerings or other facilities such as

dulang, bokor, tokasi, petirtan, tetabuhan, and many more. In addition, the other facilities are functioned as supporting facilities such as tedung, tombak, kober, umbul-umbul, salang, lamak, pretima, penjor, and so on.

As an artifact, upakara is created with high philosophical meanings with sacred symbols as the personification of the Gods who are in the holy heaven. Various Gods statues are created by materials such as wood, padas stone, and kepeng with strong and deep characteristics. Visually, the form of upakara is really simple and it is not proportional but it has energy, aura, and strong depth of sanctity. The power of energy emitted in upakara is because the outpouring of the heart and soul of artist is totally devoted to the work created. In accordance with upakara which practically functions has also a very simple form with the creativity of the community at that time, but it still has strong and sharp characteristics. The type of upakara is still very limited, especially in the main types of upakara itself. Likewise, those who have upakara which practically functions are only limited to certain communities, namely nobles or people who are rich and respected.

All forms and types of upakara are art works created by artist or craftsmen using various materials such as wood, metal, palm leaves, textile, young coconut leaves, and earthenware. A ceremony cannot be done if it is not supported by upakara; therefore, ceremony tightly relates to art and artist itself. Art relates to religious entity, art becomes inherent with religious life, religion is art, and art is manifestation of religion itself (Parta, 2018:4). The united of religion and art is a strong base of Balinese culture to support all Balinese life in order to achieve prosperity and happiness in both physically and spiritually.

There is a tradition for Hinduism in Bali to have creativity to create various upakara in a simple way until complicated and complex one. Maturity standard of person is considered by how far her or his ability to make upakara yadnya when they work together or "ngayah" in order to prepare all forms and types of upakara for certain ceremony. Many forms and types of upakara can be done by community in ngayah, especially a simple one and it is not long lasting upakara in term of quality. The devotion of community is shown by their ability to do both simple and complicated upakara.

Along with the development of era, knowledge and technology, most of upakara become commodity which is done professionally by competent person on its field. From the simplest until the most unique and complicated forms and types of upakara have been produced by the craftsmen and the community can just use it. A positive thing to carry out ceremony is that the community does not need to be too busy because all needs of upakara have been provided in certain places as what they want to. On the other hand, the community becomes consumptive and they do not have any creativity to prepare all types of upakara in which the sense of devotion to the almighty God is indirectly reduced and it becomes tasteless because it is only for obligation to carry out the ceremony, not the purity and sincerity of the offering to the God.

The forms or types of upakara that have religious creation require high skilled artist or professional craftsmen in creating it. Its process is different with upakara which has practical function; in addition, the materials used are chosen materials because it will be sanctified. The beginning process of upakara is by determining an appropriate day and it is done with deep soul expression so that the created work has a very strong and deep energy and aura. It is different with the creation of upakara that has practical function in which it can be done in

any time with high skill without spontaneous expression.

The number of ceremonial activities require a considerable amount of upakara in which it becomes a considerable possibility for artists to develop it (Karuni. 2018:30). The centers of art crafting of upakara have appeared in various regions that offer various forms and types of upakara with different material uses and diverse functions. The consumers have so many choices according to their tastes and economic abilities to have upakara. The high and low values of upakara itself highly depends on the quality of the products in which it can be shown on the quality of its materials and ornamental used. Upakara with certain quality is commonly had by some community with high social status.

Upakara which functions practically should be possessed by the community who has various class categories. This categorization depends on the quality of the products that are shown by the uniqueness and appearance of the product. The production of high quality upakara is very limited because the process of its creation is too long and it only can be done by high skilled person. Even though, many upakara which have same functions on its simple forms are also done in line with the community abilities.

The categorization of upakara leads to the multi-function of upakara itself, namely social functions besides practical functions. In certain ceremonial activities, social position of the community will be shown by upakara used. Communities who have high degree and economic position will use upakara that is exclusive, luxurious and elegant; in addition, ordinary communities will use upakara which is simple but still modest.

The measurement of ceremony depends on the forms and types of upakara used. Big ceremony uses so many upakara which is exclusive so that the ceremony looks luxury. Likewise, small ceremony uses simple upakara but it still has high and deep value.

The Dynamics of Art Crafting of Upakara

The number of upakara needed in every ceremony is a challenge for craftsmen to develop it according to their creativity. Craftsmen are challenged to create products with new and more unique forms and models to be offered to the consumers. The forms, models, and types of upakara are increasingly varied which are created according to the tastes of the growing community.

It has become an obligation for Hinduism to have various upakara that are used in carrying out ceremonies, both upakara which function practically, religiously, and only as decoration. Upakara will be widely used in certain ceremonies such as piodalan in Sanggah, Galungan and Kuningan days, or ceremonies in various temples in Desa Pakraman or Khayangan Jagat in Bali. Generally, the community has various upakara such as wanci, bokoran, petirtan, tokasi, pemuspan, tedung, salang, kober, umbul-umbul, lamak, and others in the form of wood carvings, metal carvings, woven, knitted, uang kepeng, sunggingan colors and others forms.

 Lately, the public interest to carry out ceremonies becomes very high, both at the level of personal and general public groups (Karuni, 2018: 99). The increasing implementation of ceremonies indirectly will require many upakara as its supporters. The amount of effort needed leads to the creation of upakara which experiences significant dynamics. The creation

of upakara continues to increase with various forms, models, and new types that are more unique, practical, and economical. The type of upakara which functions practically and functions as a decoration is hunted by the community to be owned and used as household furniture that has religious functions.

The dynamics of upakara along with the development of ceremonies in Bali cannot be separated from the journey of life patterns of the supporting communities. When community's lives are still very simple, the ceremonial activities are simply carried out, but the implementation is very solemn and religious. Upakara used is also very simple, but it has deep functions and meanings. The soul and feeling to carry out the ceremony are very deep with a sincere heart without expecting anything. A simple life, the religiosity of society is very pure to surrender to the God.

As the time flies, community's lives have increased along with the country's economic growth. In the progress of secular life, the religiosity orientation of the community is still high. The ceremonial activities also have indirectly experienced significant increase, especially the ceremony which is carried out by the community personally, both Dewa Yadnya and Manusa Yadnya. The needs for upakara are increasing by offering practical functions, at economical prices. To add the aesthetic value of upakara, it begins to be embellished with ornaments, both with engraving techniques, sunggingan, and embroidery. Embellishments also undergo a gradual process that begins with simple forms and certain compositions, but it is integrated with its form. The ownership of upakara for the community is still adjusted to the interests and needs. The community will look for various upakara when they are going to do ceremonial activities according to their needs. For the community, upakara, especially for practical functions, is not considered as valuable item that must be possessed, so that they will use upakara in accordance with their interests.

The Multi-function of Upakara

When the communities have an established life, they begins to balance their needs in both physically and spritually. The community is not only trying to pursue physical needs in physical form, but also doing various spiritual activities by carrying out ceremonies and praying to various temples in Bali. As a devotion, the community will always use the best and most beautiful upakara to offer as a sign of sincere surrender to the Almighty.

The enthusiasm of the community to carry out the ceremony is quite high and sometimes very excessive. The community seems to compete in carrying out the ceremony with a very luxurious appearance. Spiritual activities are often used as lifestyle in the community to show how religious and generous they are. Ceremonial activities are also often used as a place to show social stratification as a rich and well-established person. The implementation of the ceremony is not merely an offering, but as a contestation of social position in the community. In order to show social status, it is commonly shown by the appearance of a luxurious and elegant ceremony by using an all-inclusive upakara. In this case, upakara do not only function as a means of ceremony, but also as the signification of social status.

Multi-function of upakara shows that it should be created not only to fulfill practical functions, but also to fulfill the authority and social position of the owner; therefore, it should be created with a very high aesthetic value so that the work is weighty. It becomes a challenge for

craftsmen to be able to answer in order to make upakara has multiple functions.

Diverse needs of the community classify upakara from a class that is unique, luxurious, expensive, medium, simple, traditional, which is indicated by the materials used, work techniques, decoration displayed, and colors and accessories used. Upakara which is unique, luxurious and exclusive is done by special artists who have high expertise in their fields. The materials used are chosen materials, which has high quality, both strength of the material and value contained. Likewise, the decoration that is applied is very unique and complicated with fine, detailed, and artistic processing. Exclusivity of upakara looks from the unique and complex carving as well as the gold color used.

Upakara which has high value is only possessed by certain community, namely the nobility and the rich. Besides the price is quite expensive, the craftsmen who work are also quite limited, so the production is very minimal. This upakara should be ordered first for the craftsmen because it has not been sold freely. For the nobility, upakara is an artifact as religious and luxury items that are used as collections to boost social status.

Craft Reproduction of Upakara

The existence of technology plays a very big role in the creation development of art works including crafting arts of upakara. Synthetic materials offer a lot of ease in working. Likewise, many sophisticated equipment that uses machines appear with very practical use. The creation of art works that are initially done manually with the help of simple equipment can now be done with the help of modern equipment. In accordance with the presence of sophisticated equipment, it helps the process and can speed up the production process. A work that was previously done in a long time, it becomes faster because it has been helped by using machine tools.

Machine tools are auxiliary equipment, especially to process raw materials or to help the process of forming, while for completion they still use hand. The use of hand still plays a vital role in completing a work to make it perfect. Bad works depends on the skill of craftsmen in the process itself. The completeness of equipment also greatly influences the quality of work produced; therefore, professional craftsmen will always pay attention to the equipment used.

Ideas of craftsmen, sometimes, appear when they face complete equipment and available materials. Tools and materials can inspire artisans to create new works according to their wishes. Complete equipment and high skills will produce quality work.

The craft development of upakara is inseparable from the available modern materials and equipment. Sophisticated equipment can speed up the production process because the processing of basic materials can be done by machine. Many handicrafts of upakara have developed rapidly because they have been assisted with machine tools in the initial process, such as making wooden cylindrical upakara in which long time ago, it should be done with manual equipment; now it can be done with a lathe. Likewise, other materials such as metal and woven bamboo have been rapidly produced because the base material processor has been used. The production process that takes long time is in affixing decoration process. For wooden materials, ornaments are usually made unique and complicated carvings. However, there are also decorations made with sungging and the production costs can be reduced.

Because of the availability of synthetic materials and the discovery of reproductive techniques, the creation of upakara experiences a significant increase. Various unique and complex forms and types of upakara can be created by reproduction techniques (mold). The material used is fiberglass, which is a synthetic material that can be formed in certain ways. Upakara that is original as a master is made with fiberglass which can be opened and reinstalled and it becomes a complete mold. This mold will be able to produce the type of upakara according to the desired amount. The production of upakara is becoming faster and more abundant. Before reproductive techniques are found, a model of the original upakara is only owned by someone, but now a similar form can be owned by many people with different materials.

The appearance of reproductive techniques in the creation of art works causes all mass art works created easily and quickly. In addition, wooden material used and manual process can be reproduced using fiberglass. The advantages of using this material, besides of being easily work, also have a very light weight and durable because it cannot be eaten by termites. Ornament carvings can also be raised very prominently and intricately according to the examples of the model used (Karuni, 2018: 28).

The selling price of upakara become very cheap because of the mass production besides the materials used are quite cheap, the production process is very fast. Upakara with unique and complicated carvings now becomes relatively cheap because the production costs are very low. Wanci with unique carvings can be done manually for only two weeks, if it is done by reproduction techniques, it only can be completed in one hour. This difference of production time influences the prices of the product to be cheaper and the material used is very easy to obtain. Likewise, in term of dyes, especially gold, it is very easy to obtain with varying quality. Previously, this gold color could only be obtained from China with good quality and expensive prices, but now there are many colors of gold that come from other countries such as Japan, America, Britain and other countries. This gold color has a fairly good standard quality and the process is also very easy.

Gold is the color identity of Bali that had been influenced by China. A long time ago, between Bali and China had established a very strong culture so that the acculturation between Balinese culture and China happened; therefore, a new culture was born based on a very thick local culture which then formed globalization that can enrich and strengthen Balinese culture. This happens because Balinese culture has elastic and adaptive properties (Ardana, 2007: 7).

Gold is always combined with red, black and white which are sacred colors that have symbolic value in Hinduism. Gold is a substitute for yellow which gives the impression of luxury and has very classic characteristics. Gold is usually used to decorate ornaments in upakara which is combined with red. The power of the golden color is based on contrasting colors in order to make it bright and exclusive. The luxury of a product will arise from the use of gold that is full of arising carvings. However, the community sometimes overestimates to use gold in order to make it luxury in which it is too placid and less artistic.

Popularity of Upakara Crafts

The reproductive techniques discovery in crafting of upakara makes the production of upakara becomes abundant. Various forms and types of upakara such as wanci, bokoran,

tokasi, petirtan, pemuspan, salang, appear in the market with various sizes that are adjusted to community needs. Visually, the forms and types of imitation upakara are very unique and interesting with gold that are very contrasting and it looks so classic. The function offered is also very practical with a very light weight, so it is very easy to carry. Unique carvings and contrasting gold color make upakara looks luxurious and elegant. Luxurious upakara encourages self-confidence for women to bring the offerings to the temple.

The presence of modern technology do not only influence wooden crafting reproduction techniques of upakara, but also influence other types of upakara, such as rattan and bamboo woven in tokasi, nare, bokoran, and pemuspan. This technology helps a lot in preparing the material and affixing the decoration. Reproduction is widely used in spait screen printing techniques in applying decoration. In addition, the use of Mal technique has been made according to the form of the existing motif then it is sprayed with the desired colors. The type of upakara which is originally a plain woven becomes a very artistic product. Many woven products are also finished with batik techniques, but the motif used is Balinese traditional motif. Lately, many woven products have been decorated with painting techniques with decorative flora motifs drawn with realists and naturalists. The combination of flowers, leaves, fruit and stem are arranged in such a way to make charming decorative motif.

Reproduction techniques play a huge role in the popularity of upakara crafts because the price can be reached by all levels of society. The production of upakara is abundant in various forms and types which are varied and it offers diverse functions that can arouse the hearts of the people to have it.

In line with the existence of reproduction techniques and public attention to upakara that has increased, many emerging craft centers of upakara offer various types of products with a very charming appearance and affordable prices. Upakara production becomes abundant which is openly marketed in shops and traditional markets. Looking for various types of upakara, the community can get easily along the main road because there are many shops that sell all equipment of upakara. Besides that, there are many marketing activities by using open cars and marketing their products in crowded places such as in Sengol market or other markets. This indicates that the price of a product can be reached by the general public and community should have it. Upakara is no longer a luxury item that only certain community can have, but it has become a common item that anyone can have.

Ceremonial means of reproduction

Conclusion

Ceremonial facilities that often referred to "Upakara" are an inseparable part with ceremony itself. Without upakara, the ceremony cannot be carried out because it is the main artifact in the ceremony. There are many types of upakara, some are temporary and some are permanent which can be used multiple times for carrying out ceremonies. Various materials are used in making upakara such as wood, metal, bamboo, rattan, and fiberglass synthetic materials with

varied types and forms.

When the production of upakara is still very limited and it can only be done by certain people who have high skills, upakara becomes a rare artifact and it can only be owned by certain people because the products are limited and the price is relatively expensive. Upakara becomes a luxury item that is very valuable for its owner. In this case, upakara, besides having a practical function, it also has a social function that shows a person's social position in society.

Since the existence of reproductive techniques, upakara has become very popular in the community because various forms and types of events have been widespread in the community that are marketed in various places, both in stores and traditional markets. Upakara is no longer a luxury item because all people are able to have it as ceremonial facilities.

References

Ardana, I Gusti Gede, Empowering Local Community Wisdom in Bali   Facing   Global Culture, Puataka Tarukan Agung, 2007.

Karuni, Ni Kadek, at al., "Production of Ceremonial Means and Lifestyle Crafts Gianyar Society "MUDRA Journal of Art Culture, Volume 33, No. 1 2018

Karuni, Ni Kadek, at al., "Discourse on" Ajeg Bali "on the Arts of Handicrafts Ceremony in Gianyar Bali "MUDRA Journal of Art Culture, Volume 34, No. 1, 2019.

Yoga, Seriyoga, I Wayan, "Position of the" Gate To Transition "Lango, Brawa Catalog Beach Arts Festival, Badung, 2017

Problems and Remedies in English Classrooms of Higher Education

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In language learning, as in any kind of learning, student's effort is essential. The teacher should be less useful as a brilliant performer, keeping the class enthralled with the magic of his words, than as a facilitator of learning. He is very much expected to create the conditions which make learning possible, to provide the means by which and the atmosphere in which, students can learn. As a matter of fact, one can only learn by doing something oneself. For instance, one can learn all the theory about riding a bicycle, but not in fact be able to ride one. Similarly, one may know a great deal about how language is structured, but not know how to speak it. In order to speak the language or read or write it, one has to have a considerable amount of practice in actually using it. This is not done by hearing the teacher's speech, but by speaking oneself.

At this point, it would be no exaggeration to add that in the major English classrooms of India, learning the language is an extremely boring and thoroughly painful process. Actually there is a textbook and the teacher, in his loudest voice, reads a few lines from the textbooks and explains those few lines in the children's vernacular. The children don't get a chance to listen to an acceptable variety of English, they never get a chance to speak a syllable in English and they spend about four and a half hours every week, learning nothing of the four basic language skills. What is worse, they are often described as "backward children" by their English teachers.

YasminLukmani rightly says in her article "Developing Reading Skills"-

If one calculates the average amount of time given per student in every English class period to speak/read/write, one finds that it is minimal. At best, two to three students answer a few questions taking up about five to seven minutes of the class period. The rest of the time, the teacher holds the stage, the class. This division of time appears disproportionate and not conductive to learning (Lukmani:1988.96).

M.L. Tickoo is right in questioning in his article, "Thoughts on and around ELT

Methodologies".

Why is it that even the most detailed studies of TEPL in India of the last 40 years have failed to recommend a method for use in ordinary state supported schools? There is clear awareness of the fact that tension between established practice and declared policies(Tickoo:1988,1).

However, M.L. Tickoo expresses hope when he agrees with M.S. Patel and he quotes Patel in his article that —

In the hands of a teacher appropriately trained a structural syllabus can be an effective fool for teaching English. Implying an activity method, it demand initiative, resourcefulness and imagination on the part of the teacher. It keeps the young learner keen and active... It is indeed a delightful sight to see a class buzzing with activity like the bee-hive as it gainfully learns by doing and speaking (Tikoo: 1988,2).

Here in this small research my effort is to pin point some of the problems of the classrooms of Gujarat where the teaching of English language is either unsatisfactory or rather hopeless. No exaggeration, if it is said that the teaching of English has gone to such bottom from where it would be very difficult to uplift it. We are enlisting some of the problems, difficulties that come across in our teaching of English —

(1)   Dull, dumb, & unenthusiastic students

(2)   Escaping from the English classes

(3)   Preparing or cramming from the guides

(4)   No pre-preparation nor post-preparation

(5)   No background of English

(6)   Students' hesitation of committing mistakes

(7)   Teachers' use of translational/vernacular method

(8)   English as a compulsory subject

(9) Neither teacher nor students feel for any improvisations or innovations.

As a matter of fact, when the students come in the class; they sit looking quite dull, dumb and unenthusiastic. They don't respond to any questions asked by the teacher. And if the teacher forces them to speak in English, they try to speak a little and then onwards they stop attending the classes. As a result, the other students, may imitate the other students and bunk the class.

Instinctively or from the school, students learn that English is a difficult language. In schools, either the student leaves the English subject or unwillingly attends the classes. But in college, he is free to attend the class or to leave it. Moreover, the students get such a worse company in the college that they have been badly convinced that English lectures are boring, difficult, unappealing and what not. Consequently, the students try to escape from attending the classes.

Now, whether the students attend the classes or not; they are supposed to appear in the exam of English and pass it also. In that case, the students get habituated of cramming readymade answers from the guides and cheap digests available in the markets. Most of the students remain absent throughout the year, they just buy guides, cram up and mug up every answer

and get through the exams.

Classroom teaching suffers a lot when there is no link to it with pre-preparation or post-preparation done by the students. Generally, the students come in the class with empty brain and goes with the same. He does not come with any home-preparation nor he does any after-preparation after going home.

Generally, the students belong to the middle, lower, or lower-middle class. They do not come to the college with any such acquaintance of English that can be helpful to them but they come to the college with a limited knowledge of English. There are some cases who keep a good knowledge of English but there are exceptions.

In the classrooms, the main reason why the students do not reply openly is that they hesitate to speak lest any error should not be committed. They keep reserved. Some of the students want to ask something, want to get clarified their doubts and queries but they are shy, they think that if the teacher would insult them or act in an unexpected way, or they also feel ashamed of the classmates. Sometimes they respect the "teacher-dominance" education system.

Helplessly and hopelessly, the teacher not seeing any response from students' side has to switch over the vernacular language. He has to translate while teaching English lessons or language in the classrooms. If the teacher of English constantly deals only with English, it is very difficult to stimulate the students' curiosity to respond therefore for the sake of their responsive ability, the teacher resorts to translation.

It is also somewhat pathetic that English is a compulsory subject in Gujarat University, therefore the students have to opt for it. English has to be studied compulsorily in all the semesters. Because of this the students unwillingly take the subject and remain dull and unenthusiastic throughout the college life.

The tragedy is from both the sides, neither the students want to learn properly nor the teachers are interested to take the lectures sincerely, regularly and meticulously.

Remedial Measures

The pathetic situations of the English classrooms in the colleges of Gujarat University is that no classrooms are well-equipped, no language laboratory and no use of audio-visuals aids. Even the teacher is also losing his heart regarding the betterment of the present situation. It is the teacher who can bring about a Himalayan change, sea-change by just understanding the mentality of the students and by just putting his efforts in improvising the classroom — atmosphere, environment so as to encourage students to respond to the teacher's teaching. Enough attention should be given to — (1) the learners (2) the teacher (3) the class (4) the language.

If these four things can put together in a proper way, the environment of the class for any language can be modified, rectified and improvised. Actually, it is very important to make the classroom a special place. Creating this special environment should be a key goal for each language teacher whether he belongs to Gujarat or any state of India and the most essential aspect in achieving this environment is involvement. A teacher should get the learners involved. Show them that we know and care what is happening to them. We should learn the background of the students - where they live, what their parents do, how they come

to college. Even we can also find out how many brothers and sisters they have. It is to be remembered that, in teaching language, all doors are open, because the key to all doors is language. It is, after all, in the teacher's hands to make the language class alive. This kind of interpersonal understanding will not only encourage the students to use language but they will find it easy to learn it also.

The teacher should first try to establish a good rapport with the students so that the students should get interested in attending the classroom teaching. Conferring student's favour, the teacher should start with their names, because this gives them an identity in the teacher's eyes and they feel that the teachers take them as individuals. This also makes the classroom much more personal and exciting.

The University should manage extra classes for the weak students. In those extra classes, the learners should be informed and taught straightforwardly about the basics of English in order to refresh their knowledge of English that perhaps lies in their subconscious mind. This could be the way to remove the discrimination and partiality that generally take place among the students.

The problems we have discussed at length earlier can be solved very easily and for that matter a teacher will have to be alert in stimulating learner's interest towards the class and towards the English language. It is only teacher who can again redirect the students towards the class. By the help of which, the teacher will see that several problems get solved from the side of students. Identifying the students by their names, establishing a close rapport with the learners, we think the students will not be any more fearful to talk to the teacher as where they are having problems in learning English. This is how the teacher can break the students' dumbness and unenthusiastic attitude towards attending classes and for English subject. The moment the teacher makes the English classes interesting, the students will speak other to join it and those students who were keeping away from the class will start attending it.

We would not try to lengthen the topic by just discussing the solutions of the student's problems. If a teacher takes the turn according to the time, we don't think there would be anymore problems — it is as if killing many birds with one stone,; removing several problems with the help of just a wise decision. If the students are regular, the teacher would be able to teach English thoroughly along with the text book and syllabus. The students will get their doubts clarified and then they will be no more dependent on the guides.

In the extra classes of English the teacher should recount some interesting stories in English in a very lucid and simple style just to keep up their interests in the class. Certainly, the students will respond, they will also start thinking about something and perhaps this "something" is very important. To instill and implant some thoughts in the students is a success of a teacher. Then there would be no need to ask the students for any pre- preparation. The student will gradually take interest in English language and English classrooms.

Since, the question of background of English is concerned, very few families are there in Gujarat who have English as their first language. Teacher can enhance or build that background, he can bring some pictures, photographs of English alphabets, numbers, and the photographs of animals, birds, reptiles etc. For keeping up their interest the teacher can ask them to play games — like spelling games or word games. This is how the students' familiarity with the English background can be initiated. And to our mind, this proximity

between the teacher and the students would be fruitful for they will unhesitatingly ask any question related to English language that puzzles them.

Gradually, step-by-step when the teacher sees that the students are capable enough to pick the English words, spellings, phrases easily, then he should leave taking help of vernacular; he should shun to translation method.He should adopt such techniques of teaching that this teaching should be appealing not only for the students of English but also for the students of other subjects. The teacher, for example, can take use of audio-visual aids to teach English, he can arrange English quiz in the college, he can take the students to nearby library where he can guide them as to how they can use the library and English-books.

We are sure about the over-all improvisations. Only students, (learners) and teachers can bring about the change in the class, some of the above-mentioned tips could prove very useful in English classrooms of the colleges.

Having made the classroom teaching interesting or having solved the primary problems of the students, the teacher can go a little deeper in the teaching of English language. The students who have fundamental and minor problems from escaping the English classes, they should not be burdened by the different so-called methods. The teacher should 'go deeper' in teaching — 'going deeper' means the teacher should minutely and closely observe and study the tender and delicate brains of the students. The teacher should understand in which activity the students take part, in which activity they are more interested, the teacher should activate those programmes where he finds himself appealing to the students and he should also examine those methods where the students become responsive. The teacher should not solely depend on the so-called methods laid down or propounded by the language teachers. After using the techniques of describing pictures, posters, word games, spelling games, explaining alphabets, numbers, the teacher can save little time for teaching the lessons of the prescribed next and syllabus, he can then take help of the following steps:-

- Introducing the dictionary

- Introducing reading skills

- Rearranging short sentences

- Writing shortest stories

- Inspiring them for general conversation

- Listening and watching the Audio-visual aids.

Generally, it is seen that the students of any state, not only of Gujarat, they have the habit of not referring to the dictionaries. The teacher should explain the way it should be referred. For the students' sake, the teacher can make them buy a good desk-dictionary, and can ask them to bring in the class. The teacher thus, can inspire the students to cultivate the habits of consulting dictionaries. This habit of the students can make the work of a teacher easy.

There are few benefits that can come out of the dictionary activity. In the course of teaching a prose or a poem, the teacher can list out a few words on the blackboard. The teacher can ask the students for looking up the meaning of the words into the dictionary. Where there are multiple meanings for a given word, help them choose the right one that would fit the context. The advantages of this procedure are: -

- The students will look upon the dictionary as the ultimate source from where they can get their meanings.

- They should also know that even the teacher is dependent on dictionaries.

- They learn to distinguish between meanings.

- It is great way for vocabulary expansion. The teacher can also teach some of the phonetic symbols to the students. And he can occasionally draw their attention towards the pronunciation of the words.

So, this is one of the ways to make classroom activity less teachers-centered and more learner-centered.

In order to introduce reading skill in the classrooms, the teacher can take help of the lesson from the textbook. So that the students will be familiar with their prescribed syllabus. In teaching reading, therefore, it is necessary that the teacher does not do all the work by, for instance, reading aloud or that one or two of the brighter students do not monopolize all the time given to the students by being made to read instead. All the students should be involved in a struggle with the text. This can only be done by making the entire class read the text silently, so that each one is required to make the efforts. After having read, the students can get their doubts clarified related to the difficult words, pronunciation problem, grammatical problem, any incomprehensible etc.

The students must be forced to grapple with the text and to apply their minds in deciphering meaning. It isn't necessary to give them the meaning of every difficult word on the blackboard. We also come across many new words in our own reading and do not always make a beeline for the dictionary. We understand, in the context, what the word means.

For another activity, the teacher can give a group of five sentences but not familiar story or events so that the students do not get confused. And it should be a group of only five sentences, less time-consuming; the students should get enough time for its comprehension. The teacher can check their attempts in isolation. And any student goes wrong, he can ask him to revise the sentences once again, and try to make it logical. That is how the teacher can stimulate their curiosity and can make them self-reliant gradually.

Under the sub-topic "writing the shortest stories" — the teacher can bring some pictures or posters and can ask the students to write a story consisting ten or twelve sentences. For writing skill (WS), M.P. Bhaskaran rightly says in his essay, "Composition: from controlled to free"-

In addition to methodologies of ELT history, the WS is itself the most difficult of the language skills to acquire. The communication is at a distance; paralinguistic features do not operate; there is intense mental activity; the need for organisation and clarity is paramount. In addition, the written form of the language, while using the same code as the spoken form, is markedly different from the latter, and has to be separately acquired. (Bhaskaran: 1988, 151).

Enhancing and developing this writing skill among the students is necessary as well as useful because as Bhaskaran says that the students get `exactness' after writing even a single paragraph. And this exactness does not come just by spoken skill of a language. So, for that matter writing skill has to be taught. Now, once they write down a short composition or a

story, the students can be asked to exchange their stories mutually and can see how other students write. They can compose and try to write as good as possible.

The teacher can now rightly divert the students towards communicative and conversational use of language. The teacher can ask them to talk on any point, any object, any topic they like with each other. The teacher can form a group of two students and then he can supervise accordingly. Sometimes, he can also ask the students to come on the stage for a short self-introduction. For that teacher can supply some of the sentences beforehand viz.

(1)   My name is

(2)   I am a student.

(3)   I study in -------- College.

(4)   I am a student of --------.

(5)   I come to college by bus.

For the sake of group discussion, the teacher can supply some readymade questions and answers, which can help them in their conversation.

At this juncture, Adrain Palmer is worth to be quoted, -

Language learning calls for communication practices rather than pattern practice. In communication practice drills the learner enjoys responses that are linguistically acceptable and also conveys information relevant to himself and other people. For communication the meaning of a sentence is more important than its form. Sentences illustrating a new pattern should be practiced with special attention to meaning. Whereas in pattern practice the meaning of the sentences are not necessary related to each other or to the students situation, in communication practice the learner pictures himself in a certain situation and passes judgment on the social acceptability of his utterance. Communication drills require flexible and human responses. (Palmer : 1970, 55).

Now in taking help of the audio-visual aids, the teacher can manage to bring V.C.R./V.C.D., a television and a radio with which, the teacher can show some small dialogues, small conversation, communication, small speeches etc. Visual aids are better experiments where students get engaged themselves in listening and watching. The teacher can also ask them to watch English news on T.V. — B.B.C. and on other channels. He can also ask them to buy some cassettes based on small English dialogues, which are available in the market for their home practice.

The teaching of English is not something that 'you do the tough and master the easy' but the teacher, particularly, the teachers of Gujarat is supposed to start with the easy tasks, he should start his teaching from the beginning, from the basics and gradually he can venture towards the exhaustive details or methodology of English language teaching. That's what we have discussed in the first chapter, the minor and the most fundamental difficulties faced by the students. As a teacher we should break that long-back tradition of one-way teaching, we should also include actively the students in learning process. We, as teachers, should keep away from making the class — 'teacher-dominated'

We will conclude with the words of S. Vedayudhan who says in his essay 'Study skills in the classroom' —

Some of us, (we, the teachers) do carry loads of learned lumber in our heads and we expect our students to get it from us, like retailers collecting their daily wares from wholesalers. Worth remembering that in a commercial sense wholesalers have a vested interest in not letting the retailers going to the sources. (Vedayudhan : 1988, 159).

So long as the teaching of language is based on prescribed reader/ texts teacher-dominance in the pursuit of knowledge is bound to continue. The thing is — can't we suppress our urge to supply every bit of information?

Shouldn't we invite the students to go, search and find out things for themselves?

On the whole, it is time that we take a second look at the educational process. Blaming the system and waiting for drastic changes and improvement of our resources is no solution. Change should begin with every individual teacher.

Romeo exclaimed:

`0! She does teach the torches to burn bright.'

When would we think of our students as torches whom we could help burn

bright.

Selected Bibliography

Nagraj, Geetha: English Language Teaching, Orient Longman, (1996).

Lee, W.R. (Editor): E.L.T. Selection/2, Oxford University Press, London (1967).

Vedayudhan, S: Ed. "Study skills in the classroom". Teaching English: Classroom issues: Macmillan India Limited (1988)

Nanda, Kamala: Developing English Comprehension, Sterling Publishers Pvt. Ltd. (1989).

Palmer, Adrain, Teaching Communication. Language Learning (Michingan), 20, 1 (1970) 55-68.

Tickoo, M.L. " Thoughts on and around ELT Methodologies". Ed. S. Velayudhan. Teaching English: Classroom Issues.OUP, New Delhi : 1988.

Lulunani, Yasmin: "Developing Reading Skills" . Ed. S. Velayudhan. Teaching English : Classroom Issues: OUP, New Delhi : 1988.

Bhaskaran, M.P. " Composition: from controlled to Free". Ed. S. Velayudhan.Teaching English: Classroom Issues: OUP, New Delhi : 1988.

LOCALITY AND MODERNIZATION HYBRID - BALI AND MODERN ARCHITECTURE

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Abstract. Architecture is an expression of the culture of the community in which they are located. In development, there will be changes in concepts, forms, materials and technology. Architecture combines a variety of contradictory things, or other diversity between nature and technology, the past with the future. Every place and region has different characteristics because it accommodates diversity by maintaining the locality that has been inherited by our predecessors is a must for architects. The locality of ethnic architecture that we have makes it the basis for us to learn what lies behind the formation of the architecture, so that it can survive until now and in the future. There needs to be a way to bridge differences in regional, cultural and other characters. Hybrid Balinese and modern architecture is a combination of something that has a difference or the result of architectural crossing. This paper will look at and reveal some forms of hybrid architectural work between Balinese and Modern Architecture in Denpasar City as a manifestation of current cultural developments and how to do so that the principles of Traditional Balinese architecture can be maintained. The research method used is deskritif-qualitative method. Data collection is done by direct observation in the field, then a literature review and documentation are carried out to obtain accurate, clear and accurate data. Methods of data analysis with data reduction, presentation and conclusion. Data presentation techniques are carried out in a narrative and descriptive manner in the form of images, photos and maps

Keywords: Locality, Hybrid, Bali and Modern Architecture

Introduction

Humans as social beings who are cultured, have dynamic traits always want change towards a better one. Tradition as a result of human culture, both in the form of ideas, behavior and in physical form (artifact) always develops and changes and requires improvements through the development process (Gomudha, 2008). Behavior change is one of the main consequences of the modernization process experienced by a society. Balinese culture is the result of copyright, the taste and work of Balinese people in interacting with each other, God and the environment. The form of Balinese culture is not uniform but diverse but still in one style (Uthama, 2015). Architecture is an expression of the culture of the community in which they are located. In development, there will be changes in form, material, technology and so on. Thus globalization should be addressed as part of development and change and occur in all fields, including the field of architecture. The ethnic architectural locality that

we have makes it the basis for us to learn what lies behind the formation of the architecture, so that it can survive until now. As something wise, what comes and enters must be able to walk side by side, not rejecting anything that comes from any global direction. Walking side by side forms the atmosphere of a new civilization, because material and technology experience development, and even local material will eventually run out and disappear (Antariksa, 2015)

Traditional Balinese Architecture (ATB) departs from traditional rules and guidelines that contain ergonomic, religious and human values, because all its manifestations are never separated from the conception of the essence of life and are derived from the teachings of Hinduism. He is formed from all physical and spiritual demands which are endeavored to be in harmony and harmony with nature, environment and relationships with God Almighty (Suardana, 2011). Because it has its own uniqueness, it is fitting that the principles of ATB in non-traditional Balinese buildings can be developed as long as they do not deviate from the basic principles of the ATB. He must be able to adapt to the demands of the facility and always develop and utilize positive technological advances by maintaining the noble values and identity of the ATB. In contrast to the modern architectural style which emphasizes the simplicity of form and the loss of various ornaments. The characteristic of modern architectural style is the simplification of the shape of the building, the form follows function (form follows function) and a little is more (less is more). The face of architecture in Bali continues to experience change and development, ATB's principles began to be pushed by modern architecture today. The appearance and face of city architecture is a reflection of the level of awareness and understanding of the community in interpreting the dynamics of change, both socio-cultural, socio-economic, and socio-political. A good architecture that reflects harmony with all that. That is, that's where the true meaning of aesthetics. Architecture is not merely a physical design but a realization of cultural ideas and ideas, and concern for human rights and dignity. Ethical aesthetics is a form of harmony between the richness of tradition and the demands of changing times (Pranajaya, 2018). Considerations for addressing socio-cultural backgrounds are also an integral part of the formation of beautiful and ethical designs. Making changes while holding the old rules is an ongoing design struggle. What can change, what may remain is a process to maintain identity. The novelty of technology and building materials should get a suitable place for mutual progress and benefit . The birth of style or style, the style in architecture gives an idea that there is always a need that comes without stopping to be perfected . The presence of new styles is not always bad and is not always good to practice all must be interpreted together to get good results. Many architects have done ways to realize modern architecture while paying attention to the values of local architecture by combining two different styles (hybrid) between local and modern architecture. Understanding hybrid itself is a combination of two opposing elements but still maintains the character of these elements. This hybrid concept is expected to continue to pay attention to the character of the local culture and maintain its architectural locality along with the development of technology and building materials at present. This paper will look at and uncover some forms of hybrid architectural work between Balinese and Modern Architecture in the City

Research Method

The research method carried out is a deskritif-qualitative phenomenology method. Data collection is done by direct observation and interviews in the field then carried out a

literature review and documentation to obtain accurate, clear and accurate data. Methods of data analysis with data reduction, presentation and conclusion) (Mathew Miles 1992). Data presentation techniques are carried out in a narrative and descriptive manner in the form of images, photos and maps. The research locations are in Denpasar City and Badung Regency.

Discussion

Principles of Traditional Balinese Architecture

The principles of Balinese Traditional Architecture are in accordance with Regional Regulation number 5/2005 such as fencing and gates of traditional gardens, and the principle form of traditional Balinese building legs, the principle of layout, the principle of exterior appearance, the principle of inner roar (interior), the principle of decoration and the height of buildings that are tailored to the interests of security, safety and security. The outer space of the building is arranged in harmony with the values in Balinese culture that pay attention to Hulu-teben or Utama, Madya, and Nista Mandala and are realized to simultaneously fulfill the requirements of safety, health, comfort and beauty of building, in addition to accommodating functions supporting activities buildings and green areas around the building. New functions outside those regulated in traditional Balinese architectural norms are arranged hierarchically based on their compatibility with traditional function values. The use of materials to support the character of traditional Balinese architecture or local architecture such as sandstone, river stone, rubbish bricks, limestone, etc. with the maximum extent possible displays the natural texture and color. The following are some buildings that have met ATB principles in Denpasar such as:

a. Building DPRD Provinsi Bali, architect: IB Tugur (https://id.wikipedia.org/); b. Building DPRD Kota Denpasar, architect: I Gst. Subagia (http://metrobali.com/); c. Building Dinas Kebudayaan Prov. Bali, architect: IB Tugur (http://www.disbud. baliprov.go.id/)

The three examples of buildings above are very thick with the application of ATB principles such as the application of yard gates using Balinese temples and Balinese style walls, and the principle of the form of traditional Balinese building heads, the principle of appearance outside the principle of decoration and building height not exceeding 15 m , Exterior elements using sandstone and rubbish brick and the use of wood poles / saka that are carved. The use of natural materials displays its natural texture and color so as to strengthen the impression of the building as a building that has Balinese architecture.

Hybrid / Architectural Combination

In the world of modernized architecture that is cultured in renewal is absolutely necessary

for future needs towards a more rational, universal aspect of life in the future is not a contradiction. Changes and inventions of architectural works are the ultimate goal that never stops. Architecture is a product of a culture that continues to grow. Ethics can be a guideline in architecture. If we observe together a number of buildings in Bali have begun not to be culturally contextual and regulations that have been established so that they obscure Balinese identity. The architectural approach is part of the dialectical process and cultural interactions that take place continuously in the dynamics of change and the development of the age not to oppose it. that architecture combines a variety of contradictory things, or other diversity between nature and technology, the past with the future. Architecture combines a variety of contradictory things, or other diversity between nature and technology, the past with the future. Every place and region has different characteristics, therefore accommodating diversity is a must for architects. There needs to be a way to bridge differences in regional, cultural and other characters. That was confirmed by Charles Jencks, fusion / hybrid sought to creatively maintain a harmonious relationship between each difference, is intercultural, hybrid architecture . Hybrid is a combination of something that has a difference or the result of a cross between something different with the dominance of one different pole. Architecture is a form that is combined with visualization, beauty, expression, and meaning. As an architect who has ethics, he must address space with an aesthetic approach that embraces the past and present in the dynamics of the development and progress of the times, in an ethical harmony of diversity. We can accept a variety of external cultural influences, both in terms of style and building materials / technology that are relatively new but do not forget the culture and rules of the local area.

Ethical and Aesthetic Productive Collaboration

Productively collaborating between outside architects and locality will certainly increase the creativity and the creation of good designs. Closeness and similarity of view towards solving design problems becomes the final key to the success of the design itself. Architectural artwork is always spatial which is always confirmed by nature and the environment. A building will be a good architectural work after it has been manifested physically by wrapping local wisdom and local culture. Sensitivity in facing environmental problems faced today and in the future is a challenge and sensitivity for the architect in the future. We have to sort through the vast diversity of developments in building material technology and the current engineering capabilities of building art. The ability to choose and summarize many of these aspects is part of an architectural creativity. In general, architects have an obligation and responsibility to always uphold and enhance cultural and architectural values, and respect and participate in considering all social and environmental aspects for each professional activity, and rejecting things that are unprofessional and beyond morality and ethical normative and formal limits. Architects are also obliged to uphold cultural values through works, and must respect and help preserve them and try to improve the quality of their environment. Ethically, he is also obliged to play an active role in the preservation of buildings/architecture and/ or historical areas of high value as the responsibility of safeguarding cultural values and messages. Everything that is good including abstract and real which contains the idea of goodness is beautiful. The forms of a combination of architecture (Hybrid) in the city of Denpasar we can see in some buildings, such as Level 21 Mall, Astra Motor Teuku Umar, Tans Studio Bali Mall, Artotel Sanur, McDonald Gatot Subroto Barat, and Plaza Renon.

The above architectural work creatively maintains a harmonious relationship by combining

the ATB style with modern architecture. The architect strives to maintain the principle of the shape of the head, body and legs as a feature of traditional Balinese buildings with a height not exceeding 15 m. Modern style can be characterized by the use of simpler exterior elements such as using glass, paint and other synthetic materials. The use of bricks has been altered with glassfibre reinforsment concrete (GRC), granic, plastering in texture paint, glass fiber and ceramics. The choice of GRC material is widely used for several jobs such as the formation of profiles / transfers / ornaments. The use of memorable natural materials is expected to strengthen the impression of the building as a building that has Balinese architecture. The application of the yard gates using the candi bentar and the Balinese style wall has begun to be abandoned.

Conclusion

- Cultured modernization in renewal is essential for future needs towards a more rational, universal aspect of life in the future is not a contradiction. Changes and inventions of architectural works are the ultimate goal that never stops. Architecture is a product of a culture that continues to grow.

- Architects need to preserve architecture by combining / hybriding from the old with the new / old ones that can be mixed with the new and the modern ones which are matched with the traditional ones to get synthesis for the sake of character (taksu) Bali

- Along with the development of architecture in the current era, architects have an obligation and responsibility to always uphold and enhance cultural and architectural values. The blend of styles (Hybrid) is one solution to maintain the principles of local architecture

REFERENCES

Antariksa, (2015). Pelestarian Arsitektur & Kota Yang Terpadu. Yogyakarta: Cahaya Atma Pusaka.

Gomudha, I.W., (2008). 'Rekonstruksi dan Reformasi Nilai-nilai Arsitektur Tradisional Bali (ATB) pada Arsitektur Masa Kini di Bali'. Denpasar: Program Studi Arsitektur Universitas Udayana.

Mathew Miles , M.H., (1992). 'Analisis Data Kualitatif Buku Sumber Tentang Metode-metode Baru'. Jakarta: UIP.

Pranajaya, I.K., (2018). 'Merangkul Masa lalu dan Masa Kini dengan Cara Yang Etis untuk Mendapatkan Hasil Karya Estetis'. Seminar Nasional Desain & Arsitektur. Denpasar: Sekolah Tinggi Desain Bali, 24-35.

Suardana, I.N.G., (2011). Figur-figur Arsitektur Bali. Denpasar: Your Inspiration*inc.

Uthama, I.B.A., (2015). Filosopi Konsep dan Aplikasi. Denpasar: Paramita.

HIGHER EDUCATION AND THE CULTIVATION OF DEMOCRATIC SPIRIT

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Abstract. While meditating on higher education, its ideals and injunctions its resolution and recession, truth here is not a solution but an inquiry which can be exhibited in a free and fair society. University education must fear from absolute assertion about knowledge and wisdom. There are various claims to truth and various ways of life. So higher education demands openness and tolerance to relativism. Truth is to be considered as 'no men's land' which provides openness. A kind of moral obligation to think and pursue.

Democratic education wants and needs to produce men and women who have the taste of knowledge and character, supportive to democracy. Democracy demands the knowledge to know the doctrine which is rightly constituted and to be abided by it. Education of the democratic man who has a democratic personality. A personality which is open to all kinds of knowledge, all kinds of man and their lifestyle and ideologies. Democratic higher education has no enemy then the close mindedness of an individuals and community.

This democratic higher education must have insatiated epitite for freedom to live and to know. There is no absolute. Only freedom is absolute. Democratic principle should not be collapsed in barbarism. Lincoln has rightly said that there could be no compromise with the principle of equality. Openness must be executed on the entire plethora of knowledge. We cannot be close to the emergent, the new manifestation, of progress. The higher education must cultivate a human personality which is prejudice free. Indiscrimination is a moral imperative as it is opposite to discrimination. Constitution is not a set of rules of government, but at the heart of constitution there is a moral order of equity, and freedom and justice. This spirit of democracy must be molded in the students in and through higher education. The real core of higher education is to cultivate the search for good life, emancipative life of higher order for which higher education must inculcate the capability to philosophies or create a qualitative mind.

Higher Education has to pursue germinating, communicative capability and efficiency with efficacy

A veritable celebration of life, is to dwell or to contemplate. What is Higher Education, is a matter of contemplation. Does it mean to be above the normal or qualitatively superior. In this respect higher education is a pursuit to bring what is qualitatively higher in knowledge and understanding. From nursery to Post Graduation education is a formal training in a legitimate institution and within the legitimate structure. Is this the end of the story of education? It is a perennial question. It is the most significant question that any modern civilization has asked and answered. We have to search for the other meaning of higher education. Education must

enlighten us. To be enlightened is to be cultivated through knowledge and to be free from prejudice. Immanuel Kant in his essay 'On enlightenment' (1784) said enlightenment is an emerging from one's own self inquired inability to make a use of one's own understanding without direction from another. To be dependent is to entertain a kind of sluggishness to understand, willfully disowned once responsibility. To Kant it is the lac of resolution and courage. Man of enlightenment must have the ability to trust one's own judgement and he must be courageous to sustain on his judgement. It demands responsibility and perpetual alertness, while explaining this Kant said "if I have a book that understand for me, a spiritual advisor who has a conscience for me. A doctor who decides a regimen for me, and soforth, I need not trouble myself at all. I need note think, if only I can pay, others will readily undertake the irksome business for me". This is sheer sluggishness, cowardness or in modern terms to be a victim of one's own comfort zone. Not to be enlightened is a refusal of one's own understanding. To Kant "Nothing is required but freedom, freedom to make public use of one's reason in all matters." To be enlightened is to resist any condition which would not allow to enlarge one's possibility to think. Nothing should be accepted as sacrosanct. This potentiality will create the age of enlightenment which is the age of hope. Wherein, freedom, courage to question, public responsibility and progress would be the virtues and values of enlightenment and this will create a better world. To be self reflexive, at the every individual and social act, is to be enlightened. With this insight the project of modernity was chartered, but modernity has minimize the domain of reason and freedom. Our society is measured not on qualitative change or transformation. We are adequately dependent on the quantitative parameters like material wealth, technological progress, infrastructural development, resource management and ruthless manipulation of technology and technological delusions. It is impoverishment of human freedom, human dignity and potentiality to inquire. Authoritarianism has empowered human being. Man has become submissive to technology, bureaucracy, market and media and knowledge has become a skilled management. We live today in a close mind syndrome wherein suspension of reason is it's hard core. The resultant according to Saul Bellow is that "civilized discourses has suffered scorchingly" (Allan Bloom, 2012 : 18)

It has offered 'a troubled man'. T.S. Eliot – a great poet of in 20th century – expressed his anguish :

"Where is the life we have lost in living?

Where is the wisdom we have lost in knowledge?

Where is the knowledge we have lost in information?

The cycles of Heaven in twenty centuries

Bring us farther from God and nearer to the dust."

Higher Education as a hope :

Against this existential scenario of despair and dispersion the only hope that is education – Higher Education, which would create and cultivate democratic spirit. Education alone can monitor and enchant our soul. Higher Education asserts firmness of mind, creation of prosperity, earnest endeavor, friendship, knowledge and wisdom.

In Higher Education Truth is not a solution but an inquiry. Higher Education fear from absolute assertion about knowledge and wisdom. Higher Education is a quest of openness

and tolerance which are basic democratic values. Here truth is not a capital 'T' but small 't'. It is a non authoritative expression of truth. Higher Education should treat students as a potential germinating point who can go beyond itself. This to Allen Bloom is the source of hope because in Higher Education students are not born but created. They are the agents who can dispel the dictating code of convention and prejudice. Learning in Higher Education must create a virtue of self reflexivity. What is required in Higher Education must have irrepressive aspiration for knowledge and an inquiring mind and a questioning spirit. Allan Bloom has rightly said "The liberally educated person as one who is able to resist the easy and preferred answers. Not because he is obstinate but because he knows others worthy of consideration. (Allan Bloom, 2012 : 21)

Education in this respect is open to all, it is an egalitarian pursuit. It can invite all, and can explore new life style, new ideology and create a fair hope for mankind. Allan Bloom has rightly said "There is no enemy other than the man who is not open to everything" (Allan Bloom, 2012 : 27)

Higher Education has to combat against academic and ideological absolutism and nihilism and to create tolerant relativism which will sustain, strengthen and substantiate academic freedom. It is a vital thread of democracy and higher education both.

It is truism that the tone and texture of absolutism to assert one's own opinion, as the valid claim is an academic arrogance or academic fascism and it abducts human dignity and freedom. This arrogance of academic fascism has led humanity to wars, persecutions, slavery, xenophobia, racism, myopia and chauvinism.

Suspension to think is criminal to democracy and higher education. This kind of doctrination in Higher Education is a dismissal of the spirit of Higher Education and will make the educator either to conform or be silent. In this respect the spirit of Higher Education demands openness and to be critical. Higher Education must have faith that even in confusion and turmoil there is still an open channel of soul, which can pass independent judgement and will not to lean or sweptaway by any external compulsion. Against the noise of history, subjugation and destruction against negation and hostility, souls like Yajnavalkya or Socrates can become the torchbearer of the future and can lead humanity to betterment. This kind of yearning and its culturation must be made by Higher Education. Higher Education is not and should not be a warehouse of opinions and ideologies. It is an offering of the free spirit made by autodidact to have and to preserve one's own sacred voice. It is the very soul of Higher Education. So Higher Education should not subsume only to the wish of students, not to be suppressed by the demand of a particular society and should not be dependent on the vagaries of the market. To go beyond these dictates is to create an ever green renaissance and that is the hope and future of Higher Education.

When teaching becomes a thread of philosophizing the self-searching inquiry become the corner stone of liberal education. It is an utmost tender act wherein learning enriches the horizon of knowledge without enforcing. It is a real liberal thrust of Higher Education. Here no answer is obvious yet not simply unavailable. It is not a terrain of easy preferred and preached answer but a terrain of self-searching. It is an autodidactic quest wherein other considerations are also to be welcomed for inquiry. In this respect Higher Education is the home of vision and the self-search for a good life, a real motive of Higher Education.

Higher Education is an exercise to create social well-being wherein compassion and tolerance are the richest value to be accepted and executed. Higher learning understood in a Socratic sense is a life time learning and an uneasy labour, for that recasting of the structure of knowledge is needed. We need an academic surgical strike wherein sluggishness to think should be evaporated. The monolithic structure of learning is an exercise of alienated academic discourse, which is singular and not secular. The secularization of knowledge will be possible when we treat academic non singularity as a welcoming gesture in the pursuit of knowledge. Higher Education cannot honour exclusion as an academic value. Plurality should be taken as a fact of existence and knowledge. Academic pursuit should welcome other discipline and its discourses and truths are to be sympathetically accepted for the pursuit of knowledge. Similarly quantification should not be treated as a pride of research but should be censored and should be de-limited by reason. Only quantification creates a blind alley of research, which defy the very pursuit of research because it creates data as reality and what is being quantified becomes the claim of truth. The ontic plurality cannot be studied by the method of epistemological singularist methodology.

Academic discourse of higher education ought to be nonsingular and should honor pluralist ontology and pluralist research methodology and must entertain elasticity in the pursuit of knowledge. Academia has to honour and execute multidisciplinarity as an apt way of looking and viewing reality. We have to fight against compartmentalization of knowledge and should delimit its assertion and scope. It creates openness and tolerance for other discipline. We must resist the sigmantic logic of the discipline and should cultivate secular learning as the hard core of higher education. This will lead to the growth of knowledge particularly in humanities. To have a multidimensional personality we must have multidisciplinary and multidimensional system of learning.

Multidisciplinarity should be open to the good. The loyalty to be human demands its quest of knowledge should play in the corridor of goodness. To be aware of the good is one thing and to have the desire to possess goodness is to have a priceless humanizing acquisition given by culturation. This culturation cannot remain contented with what is given by culture. Humanity cannot be a prisoner of culture alone. Humanity has to transcend and has to go beyond.

Dr. Radhakrishnan has rightly said "Man is not body and mind alone. He has in addition the spiritual dimension. As long as nature of man is interpreted by societies, natural and social and his life and world are shaped according to these concepts, the essential free spirit of man is overlooked and yet it is this free spirit that accounts for the waywardness and unpredictability of history" (S. Radhakrishnan, 1992 : 122)

Multidisciplinarity has to take in to account the thrust of spirit to go beyond the boundaries of disciplinarity and should earnestly discover one's own real being which is demonstrated through various disciplines. Culture has to encompass his written and studied disciplinary trajectory. What is needed is a cultural shift from the rising of close and stipulated set of culture. A voyage from closeness to openness is essential. It is a cultural imperative to rise above one's consolidated horizon.

Openness and expansion is a cardinal need for cognitive cultural shift. Higher Education has to expand his wings for cognitive cultural shift. In this respect higher education with the spirit of democratization can execute the cognitive shift and can guide the spirit of mankind.

Openness as the key for cultural cognitive shift and also necessary for the cultivation of democratic spirit :

For the embodiment of the democratic spirit indiscrimination is a moral imperative as the opposite of it is discrimination. In this respect it is an equalitarian gesture and whose thrust is for openness. This openness needs deeper reflection. Openness usually turns into relativism but relativism extinguishes the real motive of education and the real motive of higher education. Its real motive is the search for good life. But relativism by distinguishing culture as different and hierarchical sets a new kind of imperialism which is spur to learning.

Openness has to create one's own lifestyle which logically means we do not need others. So the great opening turns into the great closing and its obvious indifference and learning becomes a disciplinary propaganda. Here we do not subjugate cultural difference but the pathological hegemony of culture, because to them culture is ethnocentric and every culture treats one's own culture as superior and all others as inferior. Love towards one's own culture is obvious; man must love and be loyal to their family and their people in order to preserve them. This serves as a demand of an inquiry in to the importance of roots. But it is difficult to avoid decomposition. Science which was a liberating enterprise becomes a threat to culture. That is a fear. Science would uproot the established culture.

The discourse of cultural studies is lost between goodness of knowing and goodness of culture. It is a dichotomy between loyalty and quest for good life. This is an unresolved tension in life, society and culture. The awareness of the good and the desire to possess it, according to Allan Bloom "is a priceless humanizing acquisition of the mankind". Bloom has rightly said "Man cannot remain content with the what is given to them by culture, if they are to be fully human". Plato in Re-public shows the image of cave. A culture is a cave and for that history and anthropology is not of much value. It asserts and gives dogmatic assurance that thought is culture bound. Here philosophical inquiry a self-searching episode can light the path. The road well established by thinkers like Socrates and Kant that "One has to be superior to one's subjectness". To go beyond is the cry not even of culture but also of higher education. To establish oneself as a cultural being is to invent the self and liberate it from cultural bonds. What is required is openness to seek good. The unrestrained and thoughtless pursuit to openness as the goal makes openness meaningless. Cultural relativism destroys both culture of one's own and the sense of goodness. To grasp everything and through reason and science and to grasp human situation through cultural relativism, historicism and the fact-value distinction are according to Allan Boom "The Suicide of Science". One has to save culture and the higher education. In this respect culture and higher education both teach openness to closeness.

Cultural relativism has successfully destroyed the western intellectual imperialist claim. True openness is the accompaniment of the desire to know and to be aware of one's own ignorance. Openness are of two kinds.

1. The openness as indifference.

2. Openness as the quest for knowledge and certitude.

The first alternative is a dejection of desire while the second alternative increases the desire. Cultural cognitive shift is the secret thread of higher education. Real currency of openness is to be open to knowing if learning goes with the flow of the present it ought to be an

accommodative learning. In this respect the true openness means closeness to all the charms, it is found comfortable in the presence. Here opposite to prejudice is to take bath in the brilliant light of truth. The cognitive shift that higher education is to set questions, inquire and able to philosophize. This is the need of the day, for the cultivation of real democratic spirit.

The truest representation of the searching mind is just to 'follow the brush'.

References

Allan Bloom (2012), The Closing of the American Mind, New York : Simon & Schuster Paperbacks.

Heiner Rindermann (2018), Cognitive Capitalism – Human Capital and the Wellbeing of Nations, New York : Cambridge University Press.

S. Radhakrishnan (1992 Rep.) Occasional Speeches and Writings – October 1952 – February 1959, New Delhi: The Publications Division, Ministry of Information and Broadcasting, Government of India.

DISCURSUSING OF THE ZONATION SYSTEM IN ACCEPTING NEW STUDENT IN 2018: CASE STUDY IN DENPASAR CITY

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Abstract. This research aims to explain the discourse on the application of the zoning system of new student admission 2018 in Denpasar City. The research data was collected through observation, document studies, and in-depth interviews with 12 informants, involving competent stakeholders. The collected data was analyzed by qualitative and interpretative analysis techniques way using several theories in an eclectic: ie power/knowledge discourse theory, and the theory of School Based Management (SBM). The results of the study show that the zoning system in New Student Admission in Denpasar City raises the discourse of various groups (education observers, members of society, officials) in Bali. The zoning policy has invited debate (discourse) to the parties. The implementation of the zoning system has separated students from their families, many outstanding students have not been accommodated in public schools, the elimination of students from poor families. The central policy related to New Student Admission was responded to by the Provincial Government of Bali with the Governor Regulation No. 40/2017. In accordance with Governor Regulation No 40/2017, junior and senior high school / vocational school management accepts students over capacity and is not fully supported by local school resources (teachers, facilities), so that the teaching-learning process is not optimal and the quality of education is sacrificed. The zoning policy in New Student Admission needs to be reviewed for future education development.

Keywords: Zoning system, New Student Admission, Quality of education

Introduction

The progress of a nation is basically determined by the existence of quality education. The quality or quality of education can be seen in two ways, namely referring to the educational process and educational outcomes. The education process is called quality if all components of education are involved in the education process itself. Factors in the education process are various inputs, such as teaching materials, methodologies, school facilities, administrative support and infrastructure and other resources as well as creating a conducive atmosphere. Whereas, the quality of education in the context of educational outcomes refers to the achievements achieved by the school at any given time period (Suryosubroto, 2004: 210).

In terms of educational output, the predicate of quality education has been achieved by several State Junior High Schools in Denpasar. For the 2011/2012 academic year, for example, there were five junior high schools in the city of Denpasar that were included in the ten junior high schools that had the highest national exam (UN) in Bali, namely SMP 1 Denpasar, SMPN 3 Denpasar, SMPN 7 Denpasar, SMP 10 Denpasar and Junior High School 12 Denpasar (Disdikpora of Denpasar City, 2012). The results of education at the Denpasar City Junior High School which are quite encouraging, are still tinged with various cases which injure the education process, namely the problem of New Student Admission curriculum implementation, and UN, both in the Province of Bali and in the territory of Indonesia in generally.

As in previous years, the acceptance of students in Indonesia in the 2013-2014 school year was colored by many problems. According to Ombudsman representatives in 23 provinces, in 2013 there were 387 complaints. Of that number, 63% of the reporters were direct victims and 17.1% were media reports. Of the 387 complaints, 47.8% of the types of administrative malls were carried out related to the collection of money, goods and services to students who registered for school. The procedure deviation in accepting new students was found as much as 19.6%, while the substance of the most complaints, intersecting with the collection of a sum of money when registering new students, the amount reached 40%. As much as 8.8% of the substance complained was related to the absence of transparency in registration information and 8% of the online registration system encountered problems that could not be accessed. Sale and purchase of fake certificates or certificates is used by prospective students to be accepted at the intended school. In addition, there is a tendency for schools that accept new students to exceed the available quota.

Acceptance of students is regulated by the Regulation of the Minister of Education and Culture No. 17 of 2017 concerning New Student Admission to Kindergarten, Elementary School, Junior High School, High School, Vocational High School, or Other Similar Forms (Permendikbud 17/2017). New Student Admission was implemented through mechanisms in networks (online) and outside the network (offline). To make it easier for prospective students to access the school, a zoning system was implemented. This arrangement is expected to make the admission process take place in an objective, accountable, transparent and without discrimination in order to improve access to education services.

This new student admission procedure raises parental anxiety, besides because the mechanism is still unclear, also there is no certainty whether the son / daughter can be accepted at the desired school. Furthermore, there is a fear that randomization of students based on vulnerable housing creates social problems, especially related to achievement motivation. The New Student Admission zoning mechanism allows schools to receive prospective students with a large gap in academic ability. Students who excel must learn with those who experience learning barriers.

The policy of implementing the zoning system in New Student Admission in 2018 invited polemics from various parties. in addition to the community (student guardians), officials in educational institutions, community leaders, observers and council members in Bali helped bring together their findings regarding this New Student Admission policy.

This research aims to explain the discourse on the application of the zoning system of new student admission 2018 in Denpasar City. The research data was collected through

observation, document studies, and in-depth interviews with 12 informants, involving competent stakeholders. The collected data was analyzed by qualitative and interpretative analysis techniques way using several theories in an eclectic: ie power/knowledge discourse theory, and the theory of School Based Management (SBM).

II.Discussion of Application of Zoning System in New Student Admission

New Student Admission was regulated in regulation of the minister of education number 17 of 2017 concerning New Student Admission in Kindergarten, Elementary, Middle School, High School, Vocational School and Other Similar Forms. The regulation of the minister of education was signed on May 5, 2017 and immediately applied to the new student registration period for the 2017/2018 school year. Determining the radius of the school with the residence that is the core of the zoning system is left to regional and school policies, depending on the density of the local area. Some set a maximum radius of 17 km, some set around 1 km.

The zoning system that was applied creates two conditions: (1) children who live near the school have a greater chance of being accepted, even though the the value of his/her achievement does not meet the standards; (2) schools that prioritize applicants who have good achievement value, so that those who lack grades even though living around the school cannot be accepted. As a result, prospective students who are of less value must apply to private schools or other public schools that are further away from their homes. The zoning system will benefit prospective students who live close to the school. As with various other regions in Indonesia, the application of the zoning system in New Student Admission in Denpasar City also invited various parties to polemic. In general, the polemic on the implementation of the zoning system in New Student Admission concerns socialization that is considered to be lacking, policies that have the potential to separate family members, the presence of over-capacity in receiving participants, and the occurrence of teaching and learning processes that sacrifice the quality of education.

Technical constraints and lack of socialization

The zoning system in zoning system in accepting new students is actually the same as New Student Admission before, which is through an online system. The online accepting new students is considered good, because it's real time. But it's implementation in the field, there are still technical obstacles, from the side of the families of prospective students who do not fully understand online registration - until the problem of internet connection that is not smooth. In addition, a number of people in Denpasar said that the zoning system was considered as a party too quickly implemented without prior intensive socialization. The still not optimal socialization of New Student Admission was an obstacle to its implementation. The socialization was carried out by the sub-district heads, village heads, school principals and community leaders, but it turned out that it was not enough to reach out to parents. Some schools that prioritize zoning systems encourage parents to manipulate data on distance of houses, try to buy and buy favorite school chairs, and use smart Indonesian card and healthy Indonesian card ownership to be accepted by the school.

Separating students from their families

The Zoning System aims at equity, but in practice this system actually limits the rights of prospective students who want to get the school they want. Many childbirths are finally

unable to get a school because of this policy, so many people complain about this policy. Among those who protested against this policy were board members and community members as prospective student guardians. I Made Sukarmana, SH, as Secretary of the Democratic Faction who is also a member of Commission I of the Denpasar people's representation council (DPRD) for example stated:

"Currently many parents are complaining about the difficulty of getting a school. Apart from the fact that there is a zoning, the study groups in each school are very limited. While the number of students in Denpasar is quite a lot. The implementation of zoning and school distribution has made it difficult for parents of students. Given that not a few residents in Denpasar live in one place, but in population administration elsewhere. "

"It is not possible for parents to leave their children in the area of origin, while parents are in Denpasar (I Gusti Putu Artha, balipost.com/news/2018)

With the zoning system, residents living in Denpasar cannot send their children to Denpasar, because their endurance cards are located outside Denpasar. One of them was Putu Gede Ambara. Residents who live in Tonja are forced to not be able to send their children to public schools. The problem is that the population administration is still in its original place, Tabanan (balipost.com/news/2018).

The zoning system (environment) implemented by the Indonesian Ministry of Education and Culture in New Student Admission in 2017/2018 Academic Year assessed many obstacles if applied rigidly in Bali. If viewed from a sociological perspective, currently there are many Balinese people who are due to customary attachments, so even though they live in Denpasar or other cities in Bali, they still have family cards (KK) in their home areas. For this reason, many parties in Bali hope that the Provincial Government of Bali can provide a policy so that all students in Bali can study anywhere in Bali without having to be bound by zoning rules (nusabali.com, 10 Jul 2017).

In accordance with the expectations of the community and various parties, the zoning system policy in accepting new students needs to be reviewed. To ease polemic and the turmoil of Balinese protests related to the zoning system in accepting new students, the legislative member of Bali held a special meeting to find the way of its transportation. Then, the Bali governor issued regulation No 40 of 2017 concerning new students admission of junior and senior high school. As a counter-hegemony towards the policies of the central government regarding new students admission, the Bali regional government policies include: Every Education Unit is obliged to accept students from poor families (Article 2). Every Unit of Education is obliged to accept outstanding students (Article 3) .

Student admission in Bali in 2018 does not only refer to central government policy (Permendikbud Number 17 of 2017), but also refers to the regulation of Bali Governor No. 40 of 2017. According to Article 3 (Pergub Bali No. 40/2017), some outstanding students in Denpasar can be admitted to public schools in Denpasar, even though their parents' ID cards are outside the city of Denpasar, including Kadek Variastina Melani and Putu Trani Verinda. Putu Trani Verinda Mirawan was originally not accepted in a public high school, but eventually the person concerned could be accepted at Denpasar 1 Public High School. Whereas Kadek Variastina Melani is a student who has 29 charter and won a National Examination that is sufficient to enter a public school, but had bounced and was considered dead because her ID

Card from Karangasem Regency, while parents lived in Denpasar. This student graduated from SMP Negeri 9 Denpasar was finally accepted at SMAN 7 Denpasar after the second wave of the new student admission Governor's Decree (balipost.com/news/2018).

School Capacity

In accordance with Regulation of Minister of Education Number 17 of 2017 concerning new student admission, local and junior high school / high school / vocational schools are required to accept students in their region. Even though the capacity of these schools is relatively limited. In 2018, for example, in Denpasar City there are 14,360 elementary school graduates. Whereas only 3,680 can be accommodated in state junior high schools. They were accommodated in 12 public schools in Denpasar with 101 study groups. The rest goes to private schools.

Due to the limited capacity of an independent school, many demonstration students in Denpasar enter private schools. Private schools in Denpasar are now flooded with students. This was considered positive by some observers of education in Bali such as the informant's comments as follows.

Because of the limited capacity of public schools, children who want to continue the.ir education must enter the private school. I think this is good for equity. Assessment of public schools is always better than private schools should be excluded. All schools must be of good quality both domestically and privately (Ketut Sukanata, 57 years).

In accordance with regulation of the minister of education Number 17 of 2017 concerning new students admission, prospective students from poor families must be accommodated by schools in their region. On this basis, some of the teachers have deliberately made SKTM (certificate of inability) for the entry requirements for their children in public schools. In fact, not all families that make an certificate of inability are really poor. As a result, local schools were burdened, due to the limited educational funds they had.

In addition, there is competition between poor families and families who are able to find schools for their sons and daughters. According to the Regulation of Governor of Bali No. 40/2017, many families can afford to enter their children in Denpasar schools, even though their card Identity (KTP) was not Denpasar. This condition has shifted some of the rights of disadvantaged families. Poor families were eliminated not getting the same opportunity as capable families.

Governor regulation of Bali No. 40 of 2017 concerning new students admission of senior high school (SMA/SMK) in article 3 is mandated so that each Unit of Education is obliged to accept outstanding students. In accordance with this policy, the practice of making a certificate of achievement students appears as a student entry requirement at the school he wants. With a certificate of achievement students, many parents force their will to enter their children in selected schools. This is a part of the new students admission issue in 2018 in Denpasar City.

In addition, the presence of the Governor of Bali No. 40/2017, prospective students from outside the city of Denpasar have the right to get a school in Denpasar. The phenomenon of prospective assault arrivals in Denpasar occurred. In order to deal with this phenomenon, the Denpasar City Education Office took steps to anticipate the invasion of students outside Denpasar. The Disdikpora of Denpasar City since a few years ago has implemented

restrictions on the acceptance of new students from outside Denpasar, namely, only 5 percent of the capacity of each state school. This new school year, for senior high school students outside Denpasar who are accommodated only 146 students or 5 percent of the total quota of all Denpasar high school students will be divided into several public schools. The details, Senior high school (SMAN) 1 Denpasar gives a quota of 20 students, SMAN 2 gives place to 20 students, SMAN 3 receives 14 students, SMAN 4 receives 16 students, SMAN 5 gives seats to 20 students, SMAN 6 gives quota 16 students, SMAN 7 provides seats 20 students and SMAN 8 Denpasar provides a share of 20 students. The registration procedure for students moving to the rayon is the same as registration for other regular public schools. Students register online, then bring a print out from the registration to the intended school.

Teaching and learning processes that are not conducive

Governor regulation of Bali No. 40/2017 (Articles 9 and 10) mandate that all state and junior high school / vocational high school education institutions in Bali accept existing students, even if they add shife and rombel (study groups). This local policy directly forced the Denpasar City Disikpora to accept students, despite the relatively limited capacity of schools.

The policy of the Bali Provincial Government on the one hand can indeed be used to "fight" the zoning system policy, but in practice it can reduce efforts to improve education quality. The managers of junior and senior high schools are forced to increase the number of classes because they have to accept students who exceed capacity. Besides receiving students regularly with an online system, they also accept students who have a certificate of achievement or certificate of incompetence in accordance with articles 2 and 3 of Pergub No 40/2017.

Managers of primary and secondary education (SD - SMA / SMK) in Bali are required to carry out the Bali Governor Regulation No. 40/2017, besides regulation of the minister of education number 17 of 2017 concerning new students admission. They claimed to be economical in implementing the two policies. On the one hand, they must accept students from the zone in their working area, on the other hand they must also add students from outside the zone, including high-achieving students and students from poor families who have poor certificate so they must increase the number of classes.

All junior / senior high schools in the city of Denpasar in 2018 receive students exceeding the available capacitors. The number of study groups in one kelaas increased from the ideal number of 36 students to 40 and even 50 students in 1 class. The addition of the number of robels is done because the number of teachers and learning facilities / infrastructure is limited. As per article 9 of the Governor Regulation 40/2017, some high school / vocational schools in Denpasar also add shife. This only increases the burden on people who have to increase their working hours because they are in the morning and afternoon classes

These conditions directly or indirectly have reduced the quality of the teaching and learning process. The swelling of the number of robots on the one hand, and the limitations of teachers, educational facilities and infrastructure on the other hand have caused the teaching-learning process to be not optimal. Meanwhile, it was stated that the issuance of a zoning system in the receipt of new students admission and local policies in the form of regulation of governor of Bali No. 40 (2017) has reduced the quality of the learning process. This happens because of

the support of education funding that is owned by limited educational institutions, facilities / infrastructure (including classrooms, laboratories, teaching aids), and relatively limited educators / teachers.

In addition, the policy of zoning students has made the situation of receiving students who have very varied academic skills. The mix of students who have different academic abilities in the first year makes it difficult for the teaching and learning process. The teaching and learning process is carried out on a standard basis, the educator / teacher cannot explain quickly because the students in the elas have very varied abilities, some are quick to learn many lessons that are slow.

In accordance with the theory of power of knowledge (Foucault), the discourse on the implementation of new students admission in Denpasar City shows that the central government still tends to be dominant rather than the local government. Local stakeholders seem to play less role in developing the concept, implementation, and indicators of educational success. Though the direction of education policy must empower local potential. Law Number 32 Year 2004 concerning Regional Government in Article 1 paragraph (5) states that regional autonomy is the right, authority, and obligation of autonomous regions to regulate and manage their own government affairs and the interests of the local community in accordance with laws and regulations.

Centralistic policies in the form of regulation of the minister of education Number 17 of 2017 related to the zonation system in the new students admission are not in accordance with the principles of SBM (school-based management) and are less able to solve educational problems at the regional level. Centralistic policies tend to be normative so they have not been able to overcome problems at the regional level. For this reason, the existence of decentralized management needs to be more applied in efforts to manage schools. In accordance with the decentralized paradigm, the regional level Education, Youth and Sports Service (Disdikpora) can take a greater role in efforts to manage education in the region. The Regional Education Council can develop technical policies so that education issues in the region, including the implementation of new students admission.

The implementation of new students admission must be in accordance with SBM (Fattah. 2000). SBM provides broad autonomy to local schools, including in determining curriculum, and resources needed by local schools (Hussin, 2012). In addition, SBM also involves parents and involves the community within the framework of national education policy. The implementation of SBM is basically about realizing the independence of school institutions to create effective schools, namely schools that have a strong leadership system, collaborative management to direct desired changes according to sources power and school culture, oriented towards improving student learning achievement (Widodo, 2011: 35).

In an effort to improve quality education, high schools and vocational schools in the city of Denpasar have established a vision, mission, strategy, objectives and school rules as an important basic capital for the progress of the school. Quality education is developed according to the four pillars of SBM, namely in an effort to improve the quality of education, independence, participation and transparency (Syafaruddin, 2008: 174).

The policy in receiving new students at senior high school in Denpasar City online is quite good because it is objective, transparent, accountable, competitive and real time online and

has principled principles, smooth and continues and channeled all. However, the process of implementing new students admission still needs to be improved. The principle and principle of new students admission can continue to be applied consistently. The new students admission with evidence of achievement has been manipulated. For this reason, the criteria for "achievement proof" as an entry requirement in Denpasar's high school, high school / vocational school need to be clearly formulated, so that fairness and openness in the new students admission process can continue to be upheld. The addition of student quota can be accepted because it is a realization of the mandate of regulation, namely to provide services to the community to carry out 12-year compulsory education. It is expected that the quota of students accepted in a high school / vocational high school in Denpasar is based on local resources (education staff, facilities, infrastructure, education funding).

To ensure fairness, openness, and service to the new students admission community next year, it is expected to be more qualified than before. In an effort to improve the new students admission mechanism, local stakeholders (school committees) can be involved. In addition, the new students admission process in the high school / vocational high school in Denpasar City has been intervened by the dominant group in the community. The practice of intervention by the dominant group regarding new students admission can be reduced by enforcing school autonomy.

Conclusions

The zoning system in accepting new students (regulation of the minister of education Number 17 of 2017 in Denpasar City raises discourses of various groups (education observers, members of society, officials) in Bali. The zoning policy has invited debate (discourse) to the parties. The implementation of the zoning system has separated students from their families, many of the students have a secret that they cannot be accommodated in public schools, the elimination of students from poor families. The central policy related to new students admission was responded to by the Provincial Government of Bali with the Governor Regulation No. 40/2017. In accordance with Governor Regulation No. 40/2017, junior and senior high school / vocational school management accepts students over capacity and is not fully supported by local school resources (teachers, facilities), so that the teaching-learning process is not optimal and the quality of education is sacrificed.

Suggestions

Centralistic policies in the form of regulation of the minister of education Number 17 of 2017 related to the zonation system in the new student admission are not in accordance with the principles of SBM (school-based management) and are less able to solve educational problems at the regional level. Therefore, zoning policies in accepting new students need to be reviewed for future education development.

BIBLIOGRAPHY

Anonim, Banyak Orangtua Mengeluh, Diminta Peninjauan Sistem Zonasi PPDB http://
　　www.balipost.com/news/2018/07/03/49407/Banyak-Orangtua-Mengeluh,Diminta-

Peninjauan...html Selasa, 3 Juli 2018 | 13:04:50

Anonim, Drama PPDB 2018, Keluarga Miskin di Bali Tak Berdaya05 Jul 2018 https://www. liputan6.com/regional/read/3579272/drama-ppdb-2018-keluarga-miskin-di-bali-tak-berdaya

Elga Andina, Sistem Zonasi Dan Dampak Psikososial Bagi Peserta Didik, Info Singkat Ekonomi Dan Kebijakan Publik, Kajian Singkat terhadap Isu Aktual dan Strategis, Pusat Penelitian Badan Keahlian DPR RI, www.puslit.dpr.go.id, ISSN 2088-2351

Fattah. 2000. Manajemen Berbasis Sekolah. Bandung: Andira.

Foucault, Michel. 1980. Power/Knowledge: Selected Interviews and Other Writings. Brighton: Harvester.

Peraturan Menteri Pendidikan dan Kebudayaan No. 17 Tahun 2017 tentang Penerimaan Peserta Didik Baru pada Taman Kanak-Kanak, Sekolah Dasar, Sekolah Menengah Pertama, Sekolah Menengah Atas, Sekolah Menengah Kejuruan, atau Bentuk Lain yang Sederajat

Pergub Bali No 40 tahun 2017 tentang Penerimaan Peserta Didik Baru (PPDB) SMA dan SMK.

Ruang Kelas Baru di Denpasar Telah Direhab, Oleh : pendidikan | 20 Maret 2013 | Dibaca : 1564 Pengunjunghttps://pendidikan.denpasarkota.go.id/index.php/baca-berita/5847/222.124.152.68/denpasar.siap-ppdb.com Sistem Zonasi PPDB Terkendala di Bali;https://www.nusabali.com/berita/15169/sistem-zonasi-ppdb-terkendala-di-bali10 Jul 2017 20:18:55494

Syafaruddin. 2008. Efektivitas Kebijakan Pendidikan. Jakarta: Rineka Cipta.

Sufean_Hussin, et,all. 2012. School-Based Management (SBM), Opportunity or Threat (Education systems of Iran). Available from: https://www.researchgate.net/publication

Siswa Pendatang Serbu Denpasar, https://pendidikan.denpasarkota.go.id/index.php/baca-berita/12418/Siswa-Pendatang-Serbu-Denpasar

Suryosubroto. 2004. Manajemen Pendidikan di Sekolah. Jakarta: PT. Rineka Cipta.

UU Nomor 32 Tahun 2004 tentang Pemerintahan Daerah

Widodo, Suparno Eko. 2011. Manajemen Mutu Pendidikan: Untuk Guru dan Kepala Sekolah. Jakarta: Ardadizya Jaya.

SWOT OF AAN SECRET WATERFALL AS A TOURISM OBJECT, BANJARANGKAN KLUNGKUNG BALI

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Abstract. Tourist's admiration on Balinese culture has inspired them to grant the Bali Island as The Island of Gods, The Island of Paradise, The Island of Thousand Temples, The Morning of the World, and many other adoration names. (Balisenibudaya, 2016). Bali has become Indonesia;s major icon tourism. Bali always becomes the most famous tourism and as a model of developing tourism. Bali has becomes a top tourism destination and as a model in developed a world class tourism in Indonesia.. (Sutama, 2013).

Waterfall in Aan Village, Sub District of Banjarangkan in Klungkung Dstric was found by local villager recently, named The Aan Secreet Waterfall. It's location was familiar and very potential to be developed as a religious and natural toruism destination. The villagers was very anthusiastic and hopefully its become a major tourist destination. In spite of its strategic location the villkager hopefilly the waterfall serve a beautifull scenerary such as a natural and beautifull paddy terrace landscape, a quite and inspired village panorama on its way to the waterfall. The Aan Secreet Waterfall location was comparable to others tourist destination.

From the background can be formulated as follow to find the potency of The Aan Secret Waterfall, di Desa Aan, Kec, Banjarangkan, Kabupaten Klungkung and how the The Aan Secreet Waterfall tourism destination can be developed. The SWOT analysist will be used to identify the Strenght, Weakness, Oppurtunity and threatened in developed the site and get its benefit. Many strategic effort will be held such as . on,local and develope an active participation such as create a toruis icon, clean renponsibility, fuction assit the community to reach the travel consisness.

Introduction

Background

Since Gregor Krause documented the island of Bali through photographs and books in 1912, Bali began to be known by foreigners, especially Europeans and Americans (Budarma, 2012). Since then, travelers, as well as painter artists who came to Bali include Walter Spies from Germany in 1927, Rudolf Bonnet from the Netherlands in 1929, Miguel Covarrubias from Mexico in 1930, and Muriel Pearson who had a Balinese name: K'tut Tantri from the United States in 1932. They expressed their admiration for the nature and culture of Bali in books and paintings. Covarrubias wrote the book "The Island of Bali" in 1930, a detailed literature on the ins and outs of Bali that examines all aspects of the island of Bali. K'tut

Tantri wrote the book "Revolt in Paradise", a book that describes her admiration for the natural beauty of Bali (Adnyana, 2015 and Vickers 2012). The following years came other painters such as Antonio Blanco, Arie Smit, Le Mayeur and others. They were all great artists, very instrumental in bringing the name of Bali to the international world (Wangi, 2017).

After the increasing number of visits by artists, more and more news spread about the beauty and unique Balinese culture by word of mouth throughout the world. The admiration of Balinese culture then aroused the interest of foreigners to give the title of Bali Island with various titles, namely The Island of Gods, The Island of Paradise, The Island of Thousand Temples, The Morning of the World, and various other names of praise (Balisenibudaya, 2016) . Bali as an icon of Indonesian tourism, means that when speaking of tourism in Indonesia, Bali is placed in the top position, either as a leading tourist destination or as a reference for tourism development models as well as leading tourism. The international world recognizes Bali as one of the world's main tourist destinations. (Sutama, 2013).

The tourism sector in Bali has been a driving force for the economy and development in Bali since the 1970s. Therefore tourism is an integral and inseparable part of people's lives and development in Bali (Pitana, 1994). There are at least three things that can be used as indicators of the island of Bali as a tourist destination, namely the nature, culture and characteristics of the people reflected in their lifestyle. As tourist destination indicators, these three things are attractive to people. The stunning natural beauty of Bali can be an attraction as a destination to visit (Pribadi and Adriani, 2011).

Bali has interesting elements, in addition to natural beauty, cultural uniqueness as well as the hospitality of its inhabitants (Darsana, 1997). The natural beauty of Bali is related to the chain of volcanic mountain rings on Java. Bali has mountain ranges from west to east which are composed of old rocks and new volcanic rocks in the central and eastern parts of the island. Of these mountain ranges, three cone-shaped mountain peaks emerge, namely Mount Agung (highest), Mount Batur, and Batu Karu Mountain. The natural beauty of Bali is complemented with four lakes, beautiful beaches, dense forests.Thus, it is no exaggeration if Krause (2012) states that Bali is truly spoiled by nature.

The waterfall in Aan Village, Banjarangkan Sub-district, of Klungkung Regency, is the location of a new waterfall that was discovered by the local people. The location of the waterfall is named The Aan Secret Waterfall. Its location is not well known and has the potential to be developed as a tourist destination, both religious and natural tourism. The local people really hope that the location of this waterfall becomes one of the waterfall tourist destinations such as Gitgit waterfall, Sekumpul and others. The expectations of the local people are due to the location of the waterfall is very strategic; to get to that location, tourists must pass through rice fields that offer beautiful, native rural scenery, very suitable for visitors who like to do outdoor recreation activities that are looking for new environments, seeking new experience, enjoying the original, intact, calm nature, and suitable for travelers who are looking for inspiration. The scenery of The Aan Secret Waterfall is as beautiful as other waterfall tourist destinations in Bali.

The visitor's vehicle parking location can be used outside the Pura Dalem area which is 50 m away, then visitors must pass the rice field as far as approximately 100 m. Then, go down through about 200 steps, then walk along the river towards the upstream for about 200 m.

Visitors can enjoy views of the high cliffs to the left and right of the river, until they reach the location of the waterfall, with a steep height of about 30 m.

Several facilities and infrastructure have been provided and built to accommodate and improve services for visitors. In front of the entrance gate, culinary places are built, before going down the stairs, a place to buy entrance tickets and the entrance gate have been built. In front of the gate, there is a small hall. Some of the stairs have been cemented, some are still natural ones, but still comfortable to step.

In an effort to develop The Aan Secret Waterfall as one of the waterfall tourist destinations, it certainly cannot be separated from Hindu teachings that are believed by Hindus in Bali from generation to generation, specifically the people of Aan, Banjarangkan, Klungkung Regency. Natural attraction, in this case the location of the waterfall is part of the village of Aan, which is one part of the Concept of Trihita Karana.

Problem Formulation

From the background above, several problems can be formulated as follows:

1. What is the potential of the tourist attraction of The Aan Secret Waterfall, in Aan Village, Banjarangkan Sub-District of Klungkung Regency?

2. What is the SWOT of development of The Aan Secret Waterfall as one of the waterfall tourist destinations in Bali?

Research Objectives

The objectives of the study are as follows:

1. To determine the potential of the tourist attraction of The Aan Secret Waterfall, in Aan Village, Banjarangkan Sub-District, Klungkung Regency.

2. To analyze the form of development that can be done on the tourist attraction of The Aan Secret Waterfall as one of the waterfall tourist destinations in Bali.

Benefits of Research

The benefits of the research are as follows:

1. To promote and introduce the natural resources, especially the waterfall at Village of Aan, Banjarangkan, Klungkung

2. To develop and realize the location of The Aan Secret Waterfall as a tourist destination in Bali.

Literature Review

Tourism

Tourism is a journey that is carried out temporarily which is held from one place to another with the intention not to make a living in the destination but solely for recreation (Yoeti, 2006). Tourism is a temporary trip from one place to another, carried out by individuals or groups, as an effort to find balance and happiness with the environment in the dimensions of social, cultural, natural, and the Kodhyat's knowledge. (1983).

According to Spillane (2002), the type of tourism can be divided into: tourism to enjoy the trip, tourism for recreation, tourism for culture, tourism for trade, and tourism for convention.

According to Yoeti (2008), tourism must meet the four criteria below, namely:

1. The trip is carried out to other destinations.

2. The purpose of the trip is solely for fun, not making a living in the tourist destination visited.

3. The money spent by tourists comes from their home countries, not obtained from the results of the business during the trip.

4. The trip is done at least 24 hours or more.

The main elements that must be considered in order to support the development of tourism in natural waterfalls, include (Suwantoro, 2004):

1. Tourist infrastructure

2. Tourist facilities

3. Management (service, security and comfort)

4. The people / environment

Tourism Potential

An area may have an attraction that causes people to be interested in visiting the area. Objects that are an element of attraction for tourist arrivals in a tourist destination can be natural potential, the potential results of human reason, such as unique cultural arts of the community, or potentials that become a strong tourist attraction.

According to Suryadana (2009) in Agustina (2012), tourist attractions are everything (place / area, tourist facilities, tourist activities or specific features / phenomena) that have certain characteristics that can be interesting or intended to attract people as visitors / tourists to visit, witness, or enjoy in a tourist destination. Resources that are not or have not been developed, can not be called tourist attractions but only potential resources, if accessibility development, tourism facilities and tourism activities have not been carried out.

Tourist attractions can be classified into 3 (three) types, namely (Suryadana, 2009 in Agustina (2012):

1. Natural Attraction based on natural tourist attractions.

2. Cultural Attraction, which is based on a source of cultural tourist attraction.

3. Man-made attractions are based on sources of man-made tourist attraction.

According to the Directorate of Community Development (2011), tourist attraction consists of 3 (three) categories, namely:

1. Natural tourist attraction, is a tourist attraction in the form of diversity and uniqueness of the natural environment. Other natural tourist attractions are as follows:

a. Natural tourist attraction based on the potential for diversity and uniqueness of the natural environment in the marine waters, in the form of coastal stretches, seascapes, ponds and

seabed.

b. Natural tourist attraction based on the potential for diversity and uniqueness of the natural environment in the land area, such as natural resources and forests, river and lake waters, plantations, agriculture, and special landscapes.

2. Cultural tourist attraction, is a tourist attraction in the form of results of creativity, initiative, and human taste as cultural beings. Cultural tourist attraction includes 2 (two) things as follows:

a. Tangible cultural tourism, which includes cultural heritage, villages, museums, art galleries, cultural houses, etc.

b. Intangible cultural tourism includes traditional life and community traditions and typical cultural activities in an area / place, as well as local arts.

3. Man-made tourism, is a special attraction artificially created and other human activities outside the realm of natural tourism and cultural tourism.

Tourism Development Strategy

According to Suryono (2004), the strategy in principle is related to issues: implementation policies, determining the objectives to be achieved, and determining methods for using facilities. Strategy always relates to 3 things, namely: goals, means and methods. Therefore the strategy must also be supported by the ability to anticipate opportunities. In implementing its functions and roles in regional tourism development, the local government must make various efforts in developing tourism facilities and infrastructure.

According to Warpani and Indira (2007), tourist objects must fulfill 2 (two) things, namely the exotic appearance of a tourist attraction and fulfillment of human needs as leisure time entertainment. In other words, the appointment of a tourism potential can be said to be successful if the appearance is unique, distinctive and attractive and the timing of implementation is in accordance with the leisure time that is held by prospective tourists.

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According to Fandeli (2002), the tourism development strategy must consider the components of tourism products as follows:

1. Attractions, namely all tourist objects and attractions that become a tourist attraction.

2. Accessibility, namely complete facilities and ease of transportation to the location.

3. Amenity, which is related to utilities that must be provided so that tourists can get satisfaction in traveling. The facilities also include equipment that makes it easier for tourists to get information about tourist attractions or tourism events that are being performed.

4. Institutional, usually associated with institutions related to tourism.

5. Human resources (HR), the number and quality must be adequate because tourism is essentially a tourism product and service.

6. The economy includes investment needed, income prospects, economic opportunities

and business opportunities for all tourism stake holders.

7. The environment needs to be considered so that it is appropriate to support tourism activities.

According to Soekadijo (1996), the aim of developing tourism is to encourage the development of several sectors, among others:

1. Creating new businesses related to tourism services. For example, the business of transportation, accommodation (hotel, motel, cottage, campground, etc.).

2. Expand the market for local goods.

3. It has an impact on the workforce, because tourism can expand new jobs, such as the handicraft industry, souvenirs and so on.

4. Speed up economic circulation, thereby increasing the multiplier effect.

Development of natural tourism is influenced by several factors, among others (Yuliasri, 2005):

1. Number of visitors.

2. Ease of transportation.

3. Availability of supporting facilities (such as hotels, restaurants, entertainment facilities)

4. Promotion of natural tourist attractions.

According to Robinson (1976) in Yuliasri (2005), there are 6 (six) main elements forming tourism attraction in tourism development, namely:

1. Weather, an important feature of a location becomes a potential for tourism development.

2. Beautiful natural scenery.

3. Facilities, consisting of 2 (two) types, namely natural and artificial.

4. History and culture, historical or cultural heritage of a region.

5. Accessibility, the easier it is to reach culinary tourism sites, the higher the chances of being visited.

6. Accommodation, concerning lodging and eating-places

Religious Tourism

Religion has 2 (two) meanings, first religion is a religion related to God, its teachings are revealed through prophets and revelations. Absolute truth cannot be contested based on the beliefs of its followers. Second, religion is part of culture to fulfill collective awareness and identity. Furthermore, religious tourism in question is religion is part of culture (Pals, 2001 in Hariyanto, 2016).

Religious Tourism is one of the types of tourism products closely related to the religious aspects adopted by humans. Religious tourism is defined as tourism activities to places that

have special meaning for religious people, usually some places of worship have specificity. This particularity is seen from the side of history, the existence of myths about the place, or the uniqueness of the place (Sari, 2010). For example, in Bali there are springs that are used for a holy bath (melukat) that is believed to purify and to bring peace of mind.

Culinary Tourism

The characteristics and uniqueness of a tourist attraction are the characteristics of a tourist attraction which is the main destination of tourists to enjoy the difference with other tourist objects. Tourist attraction is now developing with culinary tourism. Although culinary tourism is often considered a complementary tourist product, potential culinary tourism is developed because tourists are usually interested in tasting typical foods in the area visited.

The word 'culinary' is itself from the culinary term. Culinary travel (English) means tour trips related to cooking. According to Harsana (2007), culinary tourism is a travel activity or part of the activity which is carried out voluntarily and is temporary to enjoy food or drink, which is related to cooking. Whereas according to Suryadana (2009) in Agustina (2012), culinary tourism is tourism that provides a variety of integrated service and culinary activities to meet the needs of tourists developed for recreation, relaxation, education, and health.

Visitor Characteristics

According to Fandeli, et al (2001), a tourist is someone motivated by something or some need to travel and temporary transit, outside his/her residence, for a period of more than 24 hours, not with the intention of earning a living. The characteristics of tourists are important variables in carrying out tourism planning activities. These characteristics include: origin of visitors, length of visit, age, sex, type of work, income, number of family members, number of members visiting together, free time, distance traveled, purpose of visit, type of transportation used, amount of expenditure spent and the type of accommodation used.

Suyitno (2001) and Ramdhani (2011) in Fandel, et al (2000), suggest that tourism is a trip carried out by a person or group of people, which is temporary, to enjoy objects and attractions at the destination. According to Law No. 9 of 1990 concerning Tourism, the criteria for a person to be called as a tourist are as follows:

1. The trip is done voluntarily.

2. Travel to another place outside the area / country of residence.

3. Temporary, stays at least one night.

4. Not to make a living.

5. Purpose solely for:

    a. Pleasure, leisure, health, learning, religious, sports.

    b. Business visits, visiting family, assignments and attending meetings.

Traveling is inseparable from travel, because based on its history, travel is the beginning of

tourism. There are several things that distinguish travel from tourism, namely:

1. It is temporary, that in the short term the tourist will return to his/her place of origin.

2. Involving several tourism components, for example means of transportation, accommodation, restaurants, attractions, souvenir shops, and others.

3. Generally carried out by visiting tourist objects and attractions, regions or even foreign countries on an ongoing basis.

4. Have certain goals which are essentially to get pleasure.

5. Not to make a living at the destination, but tourists can contribute income to local people or destinations visited, because the money spent comes from the place of origin.

Previous Research

Previous studies on the development of waterfall attractions are generally qualitative. These studies are more about exploring existing problems. Sari (2014) investigate the motivation of tourists visiting the Aek Martua waterfall tourist attraction in Rokan Hulu Regency, Riau Province. The purpose of her research is to find out what are the motives of visiting tourists and motivators that influence tourists visiting these attractions. From the results of her research, it was found that what motivated tourists to visit the waterfall was social motivation and fantasy motivation. While the highest motivator that influences visiting tourists is from the influence of friends and colleagues who have visited.

Nurdianti, et al. (2013) investigates the potential for developing natural tourism in Sigi Regency National Park. The purpose of this research is to find out the potential of tourism objects and their forms of development. Data is analyzed using SWOT analysis, by maximizing strengths and opportunities and minimizing weaknesses and threats. Based on the results of the study, it was found that the potential tourist attraction of this National Park is Maleo birds, camping ground, rivers, hot springs, trecking and hiking, rocks and waterfalls, management of palm sap and orchids. The main form of development is the breeding of Maleo birds. Its supporting development is the development of modern tourism but with natural nuances such as rafting.

Discussion

External and Internal Environmental Factors that Support and Inhibit the Development of Secret Waterfall Tourist Destination

The strength of the tourist area Secret Waterfall is the beauty of natural scenery that is very natural with waterfalls and the beauty of rice fields that stretch natural green in Aan Village, Banjarangkan District. The beauty of the Secret Waterfall Waterfall because natural processes add to its natural beauty, adding to the beauty of historical attractions can be an arena for the application of education, introducing to the younger generation about saving the environment and preserving nature and the environment.

Strengths are conditions contained in an organization, project or business concept, the strength being analyzed is a factor contained in the organization, the project concept of the

business itself, that is, what strengths tourism has, by knowing its strength, tourism can be developed become more resilient to be able to survive in the market and be able to compete for the next development concerning tourism (Freddy, 2014).

The weakness (Weakness) of this tourist attraction area is the lack of maintenance from the manager such as there are no supporting facilities for a tourist attraction, inadequate level of accessibility, such as damaged bridges and rocky roads if visitors are not careful in riding motorbikes so they will fall, besides this tourist location is quite far from the crowd. This tourist area is still lacking in promotion so that the region is not so much interested in visitors and investors who have the capital to support its development. This is in accordance with the opinion of Yoeti (20013), a tourist attraction will not develop if accessibility to the tourist attraction is difficult to reach, either by land or by air. In order for tourism to develop well, a destination must be assessed. Therefore, accessibility to and around objects / tourist sites needs to be considered. Accessibility here means roads and transportation. Weakness (Weakness) Is a weakness condition that exists in the organization, project or business concept, weaknesses in analysis, are factors that are contained in the organization, project or business concept itself, which are all factors that unprofitable or detrimental to the development of objects (Freddy, 2014).

The opportunity to create new employment opportunities for local residents with the existence of tourist areas in the form of food sales or offering services as tour guides, in addition to developing artistic and cultural activities for the community around tourist attractions. Facilities and infrastructure are all forms of companies that can provide services to tourists, this is in accordance with the opinion of Pitana and Diarta (2009) that the accommodation sector is providing temporary accommodation (lodging) and services related to it, such as the provision of food and beverages. This sector is generally located in tourist destinations and transit places, and opportunities for regional development with supporting facilities. Opportunities are conditions of opportunity to develop in the future, conditions that occur are opportunities from outside the organization, projects or business concepts, such as competitors and policies. (Freddy, 2014)

Threats are events that can cause harm to the community, the government and other parties that have a major influence which is a concern for both visitors and the local community. This is in accordance with the opinion of Jamaris in Anjela (2014) that a tourist object is anything that can be seen, enjoyed and creates a distinct impression for someone, if supported by adequate facilities and infrastructure for the tourist area. The possible threats are as the followings:

1. Natural disasters that pose a threat to the tourist area are the possibility of landslides in the event of heavy rain on the cliffs of the falls.

2. Tourism activities can cause noise disturbances, tourist vehicle parking disruptions, disturbances in foreign cultural infiltration for local people. If facilities are inadequate, they will endanger visitors, objects and attractions are often associated with the understanding of "products" of tourism industry with tourist objects and attractions.

3. These tourist products and attractions cover all services that are obtained, felt or enjoyed by tourists, since they leave the house where they usually live, until the area of the tourist destination they have chosen is a threatening condition from the outside.

Strengths of Aan Secret Waterfall Tourism Object.

Based on the results of research in the field, the strength factor in the development of the Aan Secret Waterfall natural tourist attraction as follow:

1. Beautiful scenery, cool and original
2. Openness and readiness of the community in supporting tourism
3. Related institutions / agencies coordinate with each other
4. The community supports this tourism activity
5. Good access to tourist sites
6. Adequate security conditions

Source: Processed Research Results, 2019.

Weakness Factors of Aan Secret Waterfall Natural Tourism Objects

Based on the results of research in the field, the factors that have hampered the development of the Aan Secret Waterfall natural tourist attraction are as follows:

1. Limited tourism object facilities and infrastructure
2. The limited number of professionals who manage this attraction
3. Lack of tourism promotions
4. There is still a need to develop village potential that can be used as a tourist attraction

Source: Processed Research Results, 2019.

Analisis Potensi Oppurtunity Objek Wisata Alam

1. It has distinctive potential and attractiveness (waterfalls and culture).
2. The community still has a strong Balinese traditional way of life and traditional culture
3. High community participation and initiative in supporting tourism development
4. The local residents have skills in the culinary field that can support tourism

Threat Analysis of Secret Waterfall Tourism Objects

1. Culture and bad behavior brought by visitors.
2. The discovery of another waterfall has reduced the number of visitors to the waterfall
3. Environmental damage around waterfalls due to tourism activities
4. Environmental damage due to natural factors
5. Poor handling of garbage
6. Changes in the orientation of tourist destinations become business oriented
7. Excessive Environmental Exploitation

The development strategies consist of 4 parts, namely:

Strategy of Strength-Opportunities (S-O), Weakness-Opportunities (W-O), Strength-Threat (S-T), and Weakness-Threat (W-T). The following is the explanation: S-O Strategy:

1. Optimizing the natural potential of the Secret Waterfall with environmentally friendly methods.

2. Optimizing the social potential of traditional Balinese Hindu culture as a tourism product.

3. Develop innovation and variety of attractions to increase the number of visitors.

4. Promote the action of using local products in everyday life to create a strong regional image and enhance promotion.

5. Increasing collaboration between village tourism and other relevant stakeholders. Strategy W-O:

6. Continue to preserve the environment so as not to increase the risk of disaster.

7. Conduct training for processing and marketing of typical village souvenirs.

8. Continue monitoring in the waterfall tourist area, especially in the rainy season to reduce the risk of casualties due to disasters.

9. Maintain the quality, tradition, way of life and traditional culture of the local people.

10. Accentuate existing characteristics to distinguish from other tourist areas.

11. Increase creativity in product development and design by conducting comparative studies with other tourism objects that have already developed

12. Design effective and sustainable management and marketing programs.

13. Provide briefings on product knowledge in tourism to the Human Resources involved.

Form Of Tourist Attraction

From the SWOT identify we can conclude the pattern of tourist attraction that can be developed at Aan Secret Waterfall such as :

1. Hiking/Sport Tourism : from strength can find out the pattern of the nature insist of canyon that can turned into hiking and climbing tourism.

2. Spiritual Tourism : Because of its nature with peace and quite atmosphere the place can be developed become a spiritual journey, added with its its water springs can developed to be a purify source tourism

3. Cultural Tourism : The cultural richness of the village people can be expanded to be a source of cultural tourism

4. Natural Tourism : the soround natural and beautiful panorama can be a natural tourism.

Conclusions And Suggestions

The results of this study are the formulation of tourism development strategies. Overall, the

Secret Waterfall tourism development strategies in Desa Aan are to optimize the natural and socio-cultural potential, develop innovation and variety of attractions to increase the number of visitors, improve skills in processing tourism products, highlight existing characteristics, and design effective regional management programs and sustainable.

CHAM CULTURAL IDENTITY IN THE MAKING: THE CASE OF CHAM DIASPORA IN KELANTAN, MALAYSIA

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Abstract. Cultural identity could be affected by many factors and could be multi-layers. Religion, political and economic factors have often determined the cultural identity of certain ethnic groups. Diaspora people have experienced complex markers of identity, ranging from religion, language, tradition, relation to a home of origin or homeland, to the status of citizenship. Cham diaspora lives in Malaysia. Many Cham people have been residing in Malaysia due to the trouble in Cambodia during and after the fall of Khmer Rouge. They flee to many countries, including Malaysia. For Diaspora, living in a new place has been full of struggle for the Cham community in Malaysia, especially being former refugees who were not bringing any material matters. Economic well-being has been the main purpose of the Cham community to improve their lives and to be survived in the new place. They have been reluctant to deal with political involvement as to them being able to sustain economically has been a great deal. To be in existence, they have attempted to reformulate their identity, especially by keeping the Cham language, keeping contact with their group as well as people in Cambodia, to maintain their tradition, and also to strengthen their religious identity, being devoted Islam which is very important in the new home. This paper will discuss how Cham construction of identity has been formulated, involving religion, tradition, language, and networking.

Keywords: Cham, Diaspora, Malaysia, Ethnic identity

The Cham of Kelantan: Old and New Comers

The Cham people have been living in Kelantan for a long time. The arrivals of the Cham in Kelantan have been in several stages. Based on our interview with scholars in Malaysia, they believed that Cham people who migrated to Kelantan had been blended with the Malay and did intermarriage to the Malay. Besides, a historical description of the relation with Kelantan, for example, could be found in the internet source, as follows:

Champa was also said to have close historical relations with Malay people of Kelantan and many names of places, attire, and decorations in Kelantan were adopted from Champa

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language. One type of kite-flying, a popular pastime in Kelantan, was named Wau Lenggang Kembayat ("Kembayat" is the Champa name mentioned in Syair Siti Zubaidah). The Kelantanese Malays also have what they call Sutera chepa, tenun chepa, and keris chepa, which "chepa" is the corrupted version of "Champa" in Kelantanese dialect. Malay titles like Nik and Wan used by many people in Patani, Kelantan, and Terengganu were said to have originated from Champa and are still being used by certain royal families of Champa in IndoChina. (http://kerajaan-melayu.blogspot.com/2009/12/champadesachampa-nagara. html, accessed, 12 July 2013).

Cham traders had also known to have a link with Kelantan for a long time. Indeed, in the past Kelantan had been very important for Cham people to trade and for some Cham people had been to settle down. The geological location of Kelantan is strategic for the traders from outside areas due to its location in the coastal area bordered with Thailand, Cambodia, and even Vietnam.

Apart from the older generation who are believed to settle in Kelantan, Kelantan has been the first place of settlement of the Camp refugees to Malaysia. Camp in Pangkalan Chepa has been one of the camps for the Cham refugee from the end of the 1970s to the early 1980s. Musa, 54 years old for example have reported on the Cham during that time. Based on our previous research in Malacca, some of the Cham at the beginning were also settled in Kelantan camp (see Sari, 2012; Maunati, 2012). The Cham people then have been settling down in many different areas, including Malacca. However, the majority of the Cham still in Kelantan. It is admitted that we have not got the exact number of the Cham in Malacca, especially if we count those who have been settled from generation to generation there. According to an interview with a Cham descendant, intermarried amongst the Cham and the Malay have been done in the past and those people have been categorized as Malays. It is the newcomer, especially those who came as a refugee and those who came contemporary have still be considered as the Cham or the Cambodian referred by the Malays.

If we look at the newcomers, Kelantan has still been a strategic place for them to be settled down because of a particular reason. The location of Kelantan, which is in the border area between Malaysia and Thailand in the land and in the coastal area where it is near Thailand as well as Cambodia. Historically and up to present Kelantan has been the strategic place for the transnational movement of goods, people, ideas. Ideas, Cham of Cambodia, for example, go to Islamic schools in Kelantan in which they often transfer their knowledge later on to the Cham reside in their hometown in Cambodia. As previously reported that many of the Cham people went to study in Malaysia (see Maunati, 2011; Wiratri, 2011). They also report that Malaysia, especially Kelantan has become the destination for the Cham of Cambodia to find jobs, including garment (Maunati, 2011; Wiratri, 2011).

Based on an interview with Cham people in Kelantan, Cham communities could be found in many kampongs or areas, including kampong Banggol, kampong Bunga Mas, Kota Bharu, PCB, and Penambang (Sari, 2017). According to information, the biggest number of Cham has been in kampong Bunga Mas (Kp. BM).

The focus of this paper has been in Kp BM. When I visited Kp MB, I found that there have been many different groups there. The first one is the Cham who can speak Cham and still use the language to communicate with their group. They were often from Kampong Cham or Phnom Penh KM 8 and KM 9. Another one is the Cham who could not speak Cham, but they

speak Khmer. They were often from Battambang. Besides, there are a few people who have referred themselves as the Cham but are descendants from mix groups. They speak Khmer but do not speak Cham.

They have been settling down in Kp BM. The land belongs to the Islamic...Check, so that they rent the land, by paying a small amount of money. Most of the people own the houses, except a few newcomers who rent the houses there.

I went to Kp Bunga Mas and I managed to interview Cik Fatimah and Ustad Yusof. Cik Fatimah is amongst the newcomers here since she came here 3 years ago. She is 51 years old and a single woman. She has been selling mie soup, nasi air (porride) together with her sister who sells fried banana and sweet potatoes in the morning until noon. They also make beef dendeng and dried fish. I saw they dry that meat and fish in the yard of the kedai. They have rented the house with kedai. Being newcomers, they have not yet had their own house. According to Cik Fatimah, many Cambodian came recently to find jobs here in Malaysia. Kp Bunga Mas also becomes a place for them to stay because this Kp has many Cambodians. Cik Fatimah is Khmer Islam, she is mixed blood; his father is an Arabic descendant. They only speak Khmer and have not spoken Malay fluently. Her older sister is frying bananas and potatoes in the morning time. They sell different food in the evening around 5.30 PM. They, for example, sell beef satay. In the morning, I noticed that many people came to this kedai to have breakfast of Cambodian food, like mie soup and nasi air. Cik Fatimah told me that in Cambodia people eat breakfast like mie soup too. They mostly speak in Khmer. Cik Fatimah and sister can only speak Khmer, not Cham.

According to our research findings, in terms of citizenship, many Cham people in Kelantan have been granted two different identity cards: A Blue Identity Card (Malaysian Citizen) and a Red Identity Card (Permanent Resident). Many people are also newcomers who are still Cambodian citizens. The struggle to get an IC is not easy.

Identity Construction of Cham

When we talk about the Cham identity, it seems that the Cham identity is in the process of the making. Indeed, this is common to the ethnic group, especially a group of diaspora. The elements of markers of identity could be taken from different sources, from religion, cultural tradition, language, and so forth. Cham people are also associated with Malay in many ways. As Kahn (1995) states grey area often happen in the issue of cultural identity.

There are similarities between Cham decorative ornaments and those of the Malays, similarities in the way they dress, the types of attire and decorations such as the kelarai, songket, and tengkolok. The headgear worn by Champa dignitaries in the 12th century was said to be very much like the Malay's tengkolok. The various hairstyles sported by Malay women were very similar to Cham women during their heydays, notably the sanggul lintang, sanggul ekor kera, sanggul dua, and sanggul siput rendah. (http://kerajaanmelayu.blogspot. com/2009/12/champadesachampa-nagara.html, accessed, 12 July 2013).

Based on the study of the Cham previously (see Maunati, 2012), it was pointed out by a scholar from Malaysia that Cham people have attempted to become Malay like other Malay of Malaysia for their benefits, especially economic benefits. Nevertheless, based on our interview with many Cham, the Cham have continued to maintain their Cham identity in

certain ways, like linking with Cambodia, keeping their language, and so forth. The attempt for the Cham to become like Malay seems to be not fully correct since they also attempt to preserve certain cultural traditions and language to show their identity of being Cham people. This could be seen among the Cham who came as refugees or around 1979. The descendant of Cham who has blended with Malay and stays in Malaysia from generation to generation could be true if they have been blended and categorized as Malays.

The Cham identity is still an on-going process to be formulated. This is not surprising because if we look at the economic position of the Cham people, especially those who come around 1979 and contemporary arrival, have been improving, but have not been strong enough since they mostly engage in pretty trading or workers at garments. Based on an interview with many Cham people, they have not been able to take a loan from the bank. Some people do not know how to deal with the loan. Their capitals are therefore from their own money. As mentioned above that they have mostly started it from very small businesses. Some even sell clothes in the street or door to door. Malay informant pinpointed that if we look for Cham people, we need to see the street clothe traders since they have often opened tents to sell clothes in certain areas. Night market could be one of the popular places for the Cham to open stand for clothes (Sari, 2017).

In terms of political participation, the Cham of this group has not been actively involved in politics. Several Informants told me that they have been thankful to be able to survive in Malaysia, and they do not want to involve in politics. They have also stated that involvement in politics could create a problem for them. The sorrowful experiences in the past have affected their view on life; to them, the most important they can survive economically and live peacefully. The horrible shadow of the past makes them respect their life in Kelantan more as they basically can eat and buy basic needs and even could run their small businesses.

To other people, especially the Malays, the Cham have often been considered as exclusive and do not open widely to outside their group. One informant from the different group told me that the Cham tend to get married with their group and to limit their relation, especially to their group, the Cham and other Cambodian only. These people have limitations to speak Malay or Kelate (the word for Kelantan dialect). As admitted by Ibu Jun and others, for instance, that they could not speak Malay fluently or Kelate which has a slightly different dialect. Based on the interview, few of Cham families have been conducted mix marriage with Malay. Ustadz Zul, for example, showed me his invitation card for the wedding ceremony for his child who will marry Malay. He told me that not only his family who have mix marriage but few Cham have done similarly. Indeed, mostly the Cham people have tended to marry with the Cambodian Muslim (the Cham or others). Another marker of identity can be seen from material and non-material culture, such as:

1. House and Pattern of settlement

Apart from the above point, settlement and pattern of houses could also become important ways to show their identity. Talking about the tradition of the house, the Cham of Kampong BM told me that the houses are a slightly different style to that of the Malay style. They pointed to me several houses that used the Cambodian housing style (see plates below). There are also elevated houses, but the roofs are slightly different from that of the Malay style.

The housing pattern is rather different from those Cham who reside in Malacca in which many houses are not elevated types. In Malacca, the houses were almost even to the land and if it is higher, it is only slightly higher than the level of the land. Many people do not have a specific type of Cambodian or Cham houses, but this does not mean that they are not Cham. Indeed, the selection of the marker of identity is fluid and it is not always a fixed marker. Many other elements could be selected to identify that they are Cham people, like language, connection to Cambodia, traditional Cham food habit, and so forth.

2. Language

If we look at language, Cham people have spoken the Cham language in Malaysia. In the Kampong BM, not everybody can speak Cham, but many people can speak Cham. Amongst this community, they will consider the authentic Cham for those who speak Cham, while others who speak Khmer will consider themselves as also a descendant of Cham people Cambodian Muslims. However, it is not a simple as that since younger generations do not speak Cham, but their parents are Cham and speak Cham as well. A few people are originally from the mixing of Cham and other groups, but they are adherent to Islam as well. Most of the people in this kampong speak Cham and Khmer. Indeed, language is still an important marker of identity to the Cham people in this kampong. They use Cham and Khmer for daily conversations with their group. They will use the Malay language for formal/public purposes and with other groups. For example, they use Malay in the market when they sell clothes to non-Cham or non-Cambodian or buy goods from Malay traders or other traders who are not their group.

Many experts have found that language is an important element of a marker of identity. Bayar (2009) and Wang (2007) also mention that language is one of the important markers of identity. Wang (2007), for example, shows the case of Hakka in Taiwan. This is especially relevant when we talk about people who have migrated to different countries which consequently use different languages. Apart from the case of Hakka, many studies have shown the importance of keeping the language to keep their identity. Indeed, to keep their languages could become an important matter for maintaining their identity. Based on our previous research on several sites in Malacca, the Cham adults who reside in Malacca use the Cham language when they communicate with their fellow Cham (see Maunati, 2012). However, their children tend to use both Malay and Cham (Maunati, 2012). Keeping the language is also reported to be important for the Bugis in Malaysia. The children who were born in Malaysia tend to use Malay as their main means of communication (Maunati 2010). The Cham people in Malacca have tended to use Cham for daily life with their fellow Cham though they also speak Khmer (see Maunati, 2012). Maunati (2012) notes many Cham in Malacca could speak both Cham and Khmer, especially those who had grown up in Cambodia. Language is indeed important as a marker of identity for the Cham in Malacca.

This is not surprising since our focus was the Cham who were refugees at the end of the 1970s and those who migrated to Malaysia in contemporary times so that why they still speak both Cham and Khmer. Indeed, we have to be aware that the Cham have migrated to Malaysia in several waves (Wong Tse Ken, nd), just like other groups, including the Bugis who have migrated to Malaysia in many waves: after the fall of Sumba Opu, around the 1960s, around the 1980s, and in the contemporary movements (Maunati 2010). The recent migrant of Cham in Malacca often spoke broken Malay, but still fluent in Cham and Khmer

(see Maunati, 2012). The situation in Malacca seems to be rather similar to Kelantan in which language is still important to be spoken as an indication of their identity. They use Malay in the public sphere while amongst their group they continue to speak Cham or Khmer.

People in Kampong BM speak many languages. For this Cambodian community, they speak in Khmer since almost everybody could speak Khmer. For the Cham, they will speak Cham in their houses and to those who speak Cham.

In the kampong BM of Kelantan, another kampong that has many Cham families, 10 out of 12 houses are Cham families from Kampong Cham of Cambodia. They speak Cham fluently, but in broken Khmer and Kelate (Kelantan dialects). Some of them rent houses from Malay people; while a few people have owned their houses, like Haji Yanuar and Haji Abdul who own a shop in the old market.

3. The Idea of a Homeland for the Cham

Previously scholars often argued that people who left their country to migrate to other countries had cut their connection to their countries of origin. However, this kind of argument has been challenged because diaspora communities often connect to their origins (homeland) and even have certain contributions to their homeland. For the South Korean diaspora, their homeland seems to be clear, South Korea. However, for some groups like the Hmong, Cham, their homeland could be more than one since they have been moving to different countries. For example, some Hmong people who migrate to the West and who stay in Asia have a different sense of homeland (Schein, 2004). As mentioned earlier, China is often admitted as their homeland (Schein, 2004:273). This does not mean that they migrated directly from China; some had stayed in Southeast Asian countries before migrating to the West. For the Cham, the complexity is also applied since they had stayed in Cambodia before migration to Kelantan. In Kelantan, when we asked them about the homeland, the answer would not be the same. Some Cham mentioned that their homeland is Cambodia since they were born there and grown up there too. However, they are the descendant of the Kingdom of Champa and for their identity, the association with the Kingdom of Champa is very important to their identity. Indeed, this is also to show their distinct historical background. Central Vietnam, as the origin of the Cham people, has equally been considered as their historical homeland. The close connection to people in Cambodian than Vietnam is evident for the Cham of Kelantan.

As has been illustrated previously from the result of the fieldwork in Malacca, the concept of a homeland is also somewhat dilemmatic for the Cham people, who when they talk about their origins, often refer to their descent from the Champa Kingdom that existed in today's Central Vietnam (Maunati, 2012). This is also a marker of identity in which the belief that they are descendants of the Champa Kingdom and this shows the difference between the Cham and others (Maunati, 2013; Maunati and Sari, 2014). Certain people indicated the connection with the Cham of Vietnam, especially those of the Cham Jahed[3].

In Kelantan, Malaysia, the marker of being a descendant of the Kingdom of Champa is also in existence, but the relation is more to the Cham of Cambodia. Since they were born in Cambodia, Cambodia seems to be the home of the Cham of Kelantan Malaysia. Indeed, this is the dilemma of the concept of home discussed by many scholars when they talk about

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3   The Cham Jahed/Bani are the Cham who pray once a week, on Fridays

diaspora.

In Malacca, during Eid al-Adha, many Cham sends their sacrificial meats to Cambodia. This is a kind of relationship that they have tried to maintain with the Cham in Cambodia (see Sari, 2012; Sari, 2014. Maunati, 2012).

The memory of Cambodia or memory of people origin or the country referred to be their homeland could become a marker of identity as well in which others do not have the same experience. However, this could be only part of their multiple identities and could be used by others who have the same origin as well. This could be argued if we also look at other ethnic groups who also migrate to the same country. For example, the Minangkabau who migrated to Malaysian Peninsular could have the same marker with the Bugis if they use the origin of Indonesia. However, marker(s) of identity may not be a single element, but many selected elements in which some elements may be shared by other groups, but other specific elements could be the distinct ones. In this case, the Cham people are not only referring to Cambodia, but also the Kingdom of Champa which is located in Central Vietnam. Therefore, this is the distinct element to those of the Malay who are Muslim, if they Cham are also using the religion, Islam, as part of the marker of their identity as well.

Indeed, for Cham of Kelantan, we found that the memory of Cambodia is still very strong and they also continue to connect with people in Cambodia, mostly the Cham of Cambodia. Being former refugees from Cambodia, the Cham people have mostly kept contact with Cambodia in many ways. Some informants told me that they have visited Cambodia for several times since many of their families live in Cambodia. The memory of Cambodia had been somewhat bitter, but some had been growing up there so they still remember their places in Cambodia. Ustadz Zul, for example, told me about his village in Cambodia and he keeps several photos. He looked so sad when he told his memory of Cambodia. His village, the house, the street are still lingering in his mind. He often misses the past before the Khmer Rouge took over Cambodia. Before, as he said, he was a student and had a pleasant life. He makes notes on several photos. Here, we found that Cham people in Kelantan have a close connection with Cambodia, but they are referring to the Kingdom of Champa as their origin. The homeland(s) can be Cambodia and Vietnam depending on the context. Another important element of identity is the marriage tradition.

4. Marriage tradition

Endogamy has been the characteristic of the Cham community with marriage, but today it has changed to exogamy for certain Cham community in Malaysia and Cambodia (Abdullah, et al, 2010). He tried to attempt to answer the three questions on the changing of practice from endogamy to exogamy; structure and relationship amongst the Cham family; and the practice of matrilocal pattern. The historical movement of the Cham who were historically coming from the Kingdom of Champa has been migrating to different countries. Cambodia was the first movement soon after the Kingdon of Champa was defeated by the Vietnamese, and from Cambodia, they have moved to different countries, like Malaysia, America, European countries, and so forth when Cambodia was in political turmoil (see for example Musa, 2004). Abdullah et al (2010: 158) notes that the Cham arrived in Kelantan, Malaysia especially around 1975 during the second Vietnam War and Kelantan has been selected because of the old historical relation between the Cham and the Malay of Kelantan.

Indeed, according to interviews with several informants in Kelantan, the Cham people usually get married with the same group, but it is no problem if their families get married with other groups, like the Malay as long as they adhere the same religion. Marriage with a Moslem person is given the priority to the family in selecting a son/daughter-in-law. When Ustadz Zul was about to hold a wedding ceremony of his daughter, he invited his neighbors. By looking at the sentences in the invitation, the Cham people understand the meaning of such an invitation about the present that they need to bring to Uztad Zul. In the case of Uszad Zul, several informants told me that the invited person shall contribute rice/coffee/sugar/etc, not money during the party. The invitations were not limited to the Cham and Khmer people living nearby, but also to the family friend and family outside the village. Uztad Zul child will marry Malay and he does not oppose this marriage.

Based on an interview with non-Cham and non-Cambodian, it is admitted that in term of the marriage, the Cham follow the Islamic way that practiced by the Malay. They follow the Islamic law on marriage in Malaysia. In terms of wedding dress, the Cham people have also followed the Malay way. This is related to their religion, as an adherent of Islam. As an adherent of Islam, their religious practices can be one of their markers of identities. In this case, as Kahn (1995) mentions that grey area could be found when we are talking about identity. This is a kind of example that Islam is one of Cham markers of identity. Nevertheless, they are still Cham though they refer to Islam as their part of identity, which is no difference to the Malay. Here, we need to note that markers of identity used by the Cham people are not only one, such as religion, but many elements have also used to identify the difference between the Cham and other groups like Malay.

5. Religious Orientation: Islam

In the previous study in Cambodia, we found that in certain locations women were not allowed to pray in the mosque. Mosque was only for men. However, this does not apply to every area. In Phnom Penh, for instance, we found that women could pray at the mosque at the second level, while men prayed at first floor (see Maunati, 2010). In the village of BM, it is common that women go to surau (mushola – small mosque). For example, Ibu Jun usually goes to surau for morning and night praying. Other women have done the same, they go to surau for praying.

If Cham people in Cambodia have different orientations, the Cham people in Kampong BM seem to follow the mainstream, five times praying. According to an interview, the Cham people when just arrived as a refugee they have to learn more about Islam. Indeed, based on our previous studies of the Cham in Cambodia, we found the so-call Cham and Cham Bani (Jahed) who pray only on Fridays (see Maunati, 2013; Sari, 2013; Maunati and Sari, 2014). In Kampong BM and Kelantan in general, the Cham people follow the mainstream there and there is no Cham Bani since all Cham have to follow the mainstream regardless of their previous background when they were in Cambodia.

Indeed, in this instance, we could not find clear differences between the Cham and the Malay when they use Islam as their marker of identity. Again, the grey area could not be avoided here, but Cham people have different elements as other markers of identity, like traditional food.

6. Keeping Cambodian (traditional) Food

Many Cham people from kampong BM or outside continue to consume Cham traditional food. This could be observed in two kedai (small stall) in Kampong BM which is often packed by Cham people to enjoy the Cham traditional food.

Near the surau in the main street of the kampong, we could find kedai that provides mie soup and nasi ayam (rice and chicken), juices of orange and carrot, tea, and some snacks. According to the owner of the kedai, mie soup is a traditional Cham food. This kedai is only opened from morning to around noon, around 12 pm. Two sisters were the attendants of the kedai which belongs to their parents. One man of a cousin of these two sisters was also present to eat in this kedai. Two sisters are Ai, 20 years old and Azi, 17 years old. Although they are sisters they have different stories and statuses. Ai, the elder sister is having her passport of Cambodia. Ai has been staying in Kp BM for around 4 years. She came with her parents to Malaysia when she was one year old. Her family is originally from Battambang, Cambodia. In the beginning, her family stayed in Kelantan and then Johor. She was in Johor and studied there until she was 10 years old. She went back to Battambang to study there for 6 years. When she completed her high schools in Battambang she went back to Malaysia to follow her parents who have moved to Kp BM of Kelantan. In Kp BM she does not continue to study, but to assist her parent to take care of kedai with her younger sister. The family speaks Khmer; they do not speak Cham; their grandmother and father who were able to speak Cham, but not their parents. Unlike Ai, her younger sister, Azi is a holder of IC (Identity Card) Blue, which is a full citizen of Malaysia. She was born in Johor so that why she was entitled directly to get IC Blue based on the Malaysian regulation on citizenship. Azi does not need to chop any passport, unlike her sister who always chops her passport every month. Her parents do so for her behalf. They told me that they are Cham people though they could not speak Cham. Their origin is Cham people since their grandparents could speak Cham. They use Khmer for everyday life, except when they talk to Malay people they will use Malay. In this Kp BM, they told me, that people speak Khmer and Cham. Those who only speak Khmer, according to her, are not always Khmer Islam, but they are Cham descendants too, but they could not speak Cham any more. Those who speak Khmer only are mostly from Battambang, not Kampong Cham or Phnom Penh.

The customers of the kedai are mostly Cham people and Cambodian. Mie soup is well-know in Cambodia for breakfast. Based on my observation when I was in Cambodia, this is correct where people have breakfast of mie soup. This mie soup consists of rice noodle, sprout, beef, basil leaves, with a certain ingredient. People are attached to the food so that why the Cambodian enjoy having breakfast in the Cham kedai to enjoy the taste of mie soup that they used to eat when they were in Cambodia.

Having breakfast and coffee morning in the kedai Cham is very common to be done by Cham people, both men, and women. In the two kedai, they will chat with each other and share experiences. Those who are newcomers will get a lot of information about a job, temporary settlement, immigration processes, transportation to get around, a place to shop and to eat, and so forth. They eat Cambodian food as a way to keep their tradition of eating Cambodian food. Indeed, this kind of tradition is a part of keeping their identity, as Cham from Cambodia.

Another important type of food to be consumed and used for their special occasion, like a

wedding party, etc is prohok (fermented fish), which is a Cambodian diet; they cook prohok for daily menu as well. Prohok is fresh fish with salt and fermented is located in the glass jar. Besides, Cambodian basil and chi leaves which are not known in Malaysia are also preserved and used by the Cham people in their daily menu. They grow these two plans for their consumption

Food habit is indeed an important element of ethnic identity. This has been evident for the Cham people in Malaysia. Prohok (fermented fish – fresh fish mixed with salt and fermented) that is usually placed in a glass jar is an important Cambodian diet.

Prohok is a crushed, salted and fermented fish paste (usually of mudfish) that is used in Cambodian cuisine as a seasoning or a condiment. It originated as a way of preserving fish during the long months when fresh fish was not available in abundant supply. Because of its saltiness and strong flavor, it was used as an addition to many meals in Cambodian cuisine, such as soups (http://en.wikipedia.org/wiki/Prahok, accessed December 2, 2013).

As has been reported previously, during the wedding celebration prohok is a special diet to be served in the celebration for Cham Bani (see Maunati, 2012). Cham Bani has often referred to be the pure or authentic Cham. In Malaysia, according to Cham informant in Kelantan, the Cham still has served prohok for the daily menu as well as for any celebration. To Cham people, prohok is also admitted as their diet.

III. Economic and social networking among the Cham in Malaysia

The Cham people established extensive and intense webs of relationships that encompassed activities in the economic, religious, cultural and political spheres throughout maritime Southeast Asia (Mohamed Effendy Bin Abdul Hamid, 2007). It can be seen from the trading activities and other contacts between the Cham of Vietnam and Cambodia and their religious brethren in the Malayan-Indonesian world. They have great networking with Cham in Cambodia, Malaysia, and Indonesia, especially in Muslim wares, including clothing, headscarves, prayer mats, tudung, baju kurung, head caps, etc. Many Cham outside Vietnam who live in Cambodia and Malaysia share financial capital with the Cham in Vietnam to open a halal restaurant, hotels for Muslims, selling Muslim fashion, and open travel agencies for Muslims from Malaysia or Indonesia. Besides, some of the Cham traveled to the Middle East to be exposed to the Islamic traditions in that region. In so doing, they began to bring back to their home countries Islamic beliefs and practices that eventually shaped the indigenous forms of Islam in their regions (Scupin 1995). Some contacts with an outsider, both economically, Islamic ideology, and to mention a few have been changed the religious beliefs and identity among the Cham in Vietnam and Cambodia (Sari, 2019).

In a similar vein, the Cham diaspora in Malaysia also builds networking among them, especially with their families and relatives. It is very important not only with those who live in Malaysia, but also those who live in Cambodia, Vietnam, Thailand, and other countries. The informant said that for the beginning, contact, and communication among them have been done by those who stay overseas through collecting any information about Cham people, their brothers, sisters, and relatives in Malaysia. If they have enough information, a trip agenda to Malaysia then is made to find and meet their families and relatives. Several informants explained that Cham people living abroad, like in the US or European countries

have enough money for overseas traveling to find their families or relatives in Malaysia or Cambodia. They are doing that because they have a similar experience in the past during the Pol Pot regime and felt abandoned in their own country, Cambodia. They shared a similar identity as a Pol Pot's victim (Maunati and Betti, 2014).

Moreover, the relationship with Cham people in Cambodia has been initiated by Malaysian Cham due to their very bad collective memory in the past and strong willingness to assist those who live in poverty. Even though Cambodia after Pol Pot regime has changed in many aspects and it is now in the developing process, most Cham people are found still marginalized (An interview with Ismail, Malacca, June 2012). A variety of assistance has been a drop in the past and it looks likes it will be continued in the future. However, the activities do not only involve the Cham Muslims, but also some Malay and Chinese people in Malaysia. This happened long before the 1990s but grew even more remarkably starting 1993 and became dynamic in the 2000s. The activities can be divided as follows: humanitarian or charitable work, visiting families or genocide sites, religious education and mosque construction, business or trade relations, and marriages across countries (So, 2014).

The most visible forms of relationship are those established through humanitarian or charitable work, especially through Qurban (sacrifices), religious sacrifices feast and donation in the form of money, food, and medicines during Ramadhan (fasting month) from Cham Muslim in Malaysia both individually and collectively to receiver by certain Cham

Muslim in Cambodia. According to Awang (2011: 197), sending money to family in Cambodia is very important for bonding amongst the family. The spirit of being 'Cambodian' is also expressed in this kind of remittance built by Cham people in Malaysia with their families in Cambodia. The close relationship between the Cham in Malaysia and the Cham in Cambodia is also acknowledged by the informant, Haji Thayib. who told us that the Cham in Malacca still have close relatives in Cambodia with whom they keep in contact. Thanks to the budget airline services, people can fly from Kuala Lumpur to Phnom Penh and vice versa. Though they have painful memories of Cambodia, Cambodia is still important to them. When we visited Pak Haji, his family was watching a Cambodian TV Channel; to keep up with what is happening in that country (Sari, 2012).

The Cham Kinship Networks

In an attempt to make a detailed analysis of the Cham network, Awang (2011) used Oliveri and Reiss's (1983) notion of 'wider kin' networks. The wider kin network of families contains at least four separable components: the consanguineous kin of (a) mother's mother, (b) other's father, (c) father's mother, and (d) father's father. Secondly and equally important, are networks among non-kin. This type of network includes people who are not connected by consanguined or affinal relations. However, this category of people is bound by a kind of relationship based on faith and respect or known as 'Islamic brotherhood'.

The Diaspora Champa in Malaysia makes good use of intra-ethnic networks, especially in the trade and business of clothing and textiles. The results of a 2012 study in Malacca found that the Taman Sri Champa Community in Malacca, which consisted of clothing and clothing traders in the Tanjung Minyak market, was living helping one another and being economically dependent on one another. They have a strong trade network, both in terms of production, distribution, and sales. Although they both sell clothes, there is no competition

between them, even they help each other in the form of microcredit, where large traders give credit to small traders with a flexible payment system. Small traders selling doorto-door from village to village often take goods from large traders with installment payments. Usually, he pays half of the total purchase, the rest is paid when the results of the sale of his clothes have been collected. If there are clothes that are not sold, he can exchange with other models or clothes. The great thing about Champa traders in Malaysia is that he wants to provide very flexible credit to his customers. For example, the price of MYR80 clothes, customers can repay for 5-6 months. Because he sells from village to village, every month he will collect debts and offer new goods. Champa traders in Malaysia are known as honest, resilient, firm adherents to promises, are polite, and do not force customers to buy so they are liked by Malaysians. They are known as the "Cambodia Trader" (Sari, 2012; Manan, 2012).

Still, in the same commodity, namely clothing and textiles, the Champa diaspora in Kelantan has a strong intra-ethnic network, especially in clothing production. Kelantan is known as one of the brackets' production centers in Malaysia, where clothes are sewn here and marketed in almost all states in Malaysia. The Champa ethnic takes an important role in the production of clothes in Kelantan because most of the Champa people work, both in terms of providing fabric, sewing clothes, selling, and marketing to Malacca, Johor Baru, Kedah, Pahang, and Kuala Lumpur. Large traders act as tauke who provide fabric taken from large tauke from Johor and KL (Chinese and Indian traders) and then deliver it to intermediaries to be sewn with a consignment payment system. While the intermediary is the Champa who connects large traders with tailors. He who delivers the fabric to the tailor to be sewn from a large trader then takes the clothes that have been sewn for sorting, packed into plastic bags and delivered to the big traders to be sold or sent to traders in Malacca, Johor Baru, Penang, Pahang, and KL. This intermediary has subordinates, namely Cham tailors who are spread in Banggol Village, Kijang Village, Belacan / Belace Village, and Kedai Buluh Village. Each of these tailors has 3-5 workers who are members of his family or siblings. Some have lived in Kelantan for a long time, but some have just come from Cambodia. Previously these workers did not have sewing skills because when in Cambodia they worked in the fields, fishermen, or had not yet worked. But when they moved to Kelantan, they were adept at sewing clothes because they were taught by their boss. Within a day they work 6-8 hours, starting sewing from 8 am to 12 pm, taking a short break to eat and pray. One day there were 300-400 pieces of ready-made clothes that he worked on for 0.5-1 months. Wages for sewing MYR 3 clothes per piece, but if you take fabric then cut it yourself, sewing it yourself, and packaged it yourself 12 MYR. In addition to taking the cloth from tauke, this tailor also takes wages from sewing Malay clothes and making hoods that are then sold to shops or in the market.

From the information above it can be concluded that the process of producing clothes in Kelantan uses a client patron system based on ethnicity. Relations between intermediaries, tailors and workers are still family relations because they take workers from their relatives in Cambodia or their neighbors in the village. While tauke or big traders are Champa people who came to Malaysia in the 1975s or also called "old people". This old man often helped Champa migrants who had just arrived in Malaysia, for example providing shelter and temporary work, providing information about immigration regulations in Malaysia, information about work, sharing knowledge about sewing and how to trade in Malaysia. A Champa who just came from Cambodia feels more comfortable if he lives in a Champa community in Malaysia because they are from the same ethnic group, use the same Cham

/ Khmer language, have the same social and economic background. This is the same as expressed by Epstein (2010), that:

> *"Migrants often choose to live together in enclaves and to carry out a relatively large share of their transactions with other parties of the same enclaves – people who share a language, origin, history. Such an enclave gives the migrants a clear benefit, particularly if they are more likely to encounter a cooperative environment in such a setting. Moreover, migrants may choose a location on the supposition that recent migrants had information that he does not have (Epstein, 2010)".*

Cham's success in trading more or less is influenced by the way they undergo that business, from traditional methods by offering commodities from door to door to be centered in the afternoon and morning markets7 to establish shops as a new way. In this way, Cham traders, especially the Cham in Malacca take their trading commodity to afternoon and morning markets by vans as operational vehicles to several locations, such as Jasin and Malimau markets of Malacca. Besides, the Cham's possessing of some permanent shops in some places like in Masjid Tanah district, Seremban and Johor is an indicator of their success, such as in Masjid Tanah district. Some of them own more than one or two shops. In this district, almost all clothing shops are under Cham traders' control even though some of them are rental shops. Abdul Razak in an interview occasion said that the shop rental rate in Malacca is around MYR 1.600 a month or equivalent to IDR 5 million.

Social networks among the Cham families in Kelantan could be analyzed in terms of a 'spider's web', with three main circles. The inner circle of the web represents the nuclear family network, the second circle represents the extended family network and finally, the third outmost circle represents the non-kin network. In this study, these three types of networks will be examined, to ascertain to what extent their kinship relationship is important in helping people to deal with social and economic activities and to explore how far modernization has an impact on kin relationships.

The clothes business, both in Malacca and Kelantan is usually undergone by all members of a family where fathers take the role of managers meanwhile their wives take part either as sellers or servants as well. They also involve their children, particularly teenagers, to take part and contribute to more actively outside school hours (Abdullah et.al., 2009, 141). The involvement of teenagers in this business is very important as a teaching process. Women are the main actors and controllers while doing a transaction with consumers in shops. As managers, husbands have also another role to build a network with other trading partners, such as commodity suppliers or selling agents. For instance, Mr. Ashari, a well known Cham trader in Kelantan, with his father and other relatives usually going for business trip to Pasar Tanah Abang in Jakarta, Vietnam, and China to looking for fabric or material for baju kurung. They negotiate with the supplier directly and choose the materials for their clothes. He said that in the past the materials from Indonesia were cheaper, but now the majority of the materials and fabric come from Vietnam and China because it was much cheaper compared to Indonesia (An interview with Mr. Ashari, Kelantan, June 2013).

Meanwhile, Cham traders in Masjid Tanah district, Malacca, for instance, receive trading commodity supply particularly from suppliers or big companies in Kuala Lumpur without cash payment system. They usually gain advantages to make payments several days or weeks after the transaction is made. In terms of the division of labor, the Cham in Kelantan also

employs husband, wives, children, and large family members. Mr. Ashari's shop in Pasar Lama, Kelantan provides all of the clothes for man only, like songkok, baju kurung, sarong, Al'quran, perfumes, etc, while his wives also run one shop in Pasar Lama too. But she sells all the stuff for women, like kain telekung, scarf, tudung, fabrics, .etc. her children always help her to manage the clothes in the warehouse.

In Kelantan, the Cham entrepreneurs had managed to set up a wholesale market in Pasar Waqaf Che Yeh, Pasar Lama MPKB, and Pasar Tok Guru is known as 'Pasar Borong' among the Malays. This is the biggest 'wholesale' market in Kelantan. In Kelantan they also sold clothes in the night market in Kota Bharu, which operate every Saturday and Sunday evening. While on the weekend, they sell it in the morning market near their community. The night and morning market is a kind of mobile market. It's mean that the traders bring their goods by car or van and sell them in the market. When the market is over (night market from 6 to 11 pm, while morning market from 6 to 12 am) they tidy up their goods in a van. They usually choose a strategic location to sell clothes, such as bus stations, empty land on the corner of the street, near the market and pusat keramaian where the local people can find them easily. The commodities are clothes, long dress or baju kurung, ready to wear tudung, sarong, kain batik and fabrics. The sales increase significantly during Ramadhan time or "Hari Raya" (Sari, 2017).

As it is stated above, trade is Cham's main economic aspect to enable their socioeconomic life moving up. Nevertheless, it is not all mainly for their young generation who were born as Malaysian people. This new looks or paradigm emerges due to the current situation in which Malaysia is developing to be a country appreciating not only its economic development but also its science and technology achievement. This phenomenon indicates that Cham's first-generation worldview most differs from the second generation's one. For Cham's second-generation instead, high education and universities as well are significant aspects promising them to be able to reach a better future, including better social-economic status among the community. In addition to this trend, Ahmad told us that today we can find many Cham second-generation works as civil servants in government and private offices in the country. Ahmad's daughter who is now a university student also told us that she will run for posts whether in governmental or private sectors after graduating from the university. However, some of them also insist to continue their parent's clothes business.

Conclusion

Cultural identity could be affected by many factors and often multi-layers. Political and economic factors have often determined cultural identity of certain ethnic groups. Immigrants have more complex markers of identity that could be ranging from religion, language, tradition, relation to home of origin, to status of citizenship.

The Cham has multi identities. The Cham could be identified as the Muslim community if we look at the religious matter. This identity has been strong when the Cham were in Cambodia. In Malaysia Cham could be associated with Islam, but they also are associated with different elements, including food, language, wedding ceremony to mention a few. These are the elements that distinct between the Cham and other Muslim communities like the Malay.

Besides, the reference of homeland either Cambodia and Kingdom of Champa make the Cham identity clearly different to other groups in Malaysia.

References

Abdullah, Fatimah et al. 2010. "Perkahwinan dan Keluarga dalam Masyarakat Cam", Sari - International Journal of the Malay World and Civilization 28(2).(2010): 155-175.

Awang. Siti Noor.(2011). Kiriman Wang, Hubungan Kekerabatan dan Masyarakat Cham di Malaysia. Journal Sosiohumanika 4 (2), UM, Kuala Lumpur.

Bayar, Murat. 2009. "Reconsidering Primordialism: An Alternative Approach to the Study of Ethnicity". Ethnic and Racial Study. Vol 32. No 9. November 2009. pp 1639-1657.

Epstein, Gil S. and Gang, Ira N., Migration and Culture. IZA Discussion Paper No. 5123. Available at SSRN: https://ssrn.com/abstract=1663163

Kahn, Joel S. 1995. Culture, Multiculture, Postculture. London, Thousand Oaks, and New Delhi: SAGE Publications

Maunati, Yekti. 2012. "Cham identity: The Case of Cham in the Malaysian Peninsular". In Betti Rosita Sari and Yekti Maunati (eds) Cham Diaspora in Southeat Asia: History of Migration and Construction of Identity (The Case of Malaysia). Jakarta: PT Gading Inti Prima

Maunati, Yekti. 2013. "Contesting Identity: The Chams of Cambodia". In Yekti Maunati and Betti Rosita Sari (eds.) The Cham Diaspora in Southeast Asia: Social Integration and Transnational Networks The Case of Cambodia. Jakarta: LIPI Press

Maunati, Yekti. 2010. Identity Construction and Transnational Networks of Cham Diaspora in Cambodia. Jakarta: LIPI Press

Maunati and Sari, 2014, Construction of Cham Identity in Cambodia. Journal Suvannabhumi Vol. 6 No. 1. 2014, hlm 107-135

Mohamed Effendy Bin Abdul Hamid. 2007. Revisiting Cham Ethnic Identity in Vietnam and Cambodia: The Concept of "Ethnic Passport". Unpublished Thesis. Singapore: National University of Singapore

Musa. 2004. Islam as Understood and Practiced by the Muslims in Indochina. Journal 41 Islammiyat 25 (1) 2004: 45-60

Sari, BR. 2013. "Cambodian Cham Muslims and the Islamic World: Towards a Transnational Network". In Yekti Maunati and Betti Rosita Sari (eds.) The Cham Diaspora in Southeast Asia: Social Integration and Transnational Networks The Case of Cambodia. Jakarta: LIPI Press

Sari. BR. 2012. Life and Economic Struggle of the Cham Diaspora in Malaysia From 1979Present in Cham Diaspora in Southeast Asia: History of Migration and Construction of Identity (Study Case of Malaysia). Jakarta:Gading Inti Prima

Sari. BR. 2014. Dinamika Sosial Ekonomi Diaspora Cham di Kamboja dalam Riskianingrum (eds.) "Studi Dinamika Identitas di Asia dan Eropa. Jogjakarta: Penerbit Ombak

Sari. BR. 2017. Transnational Migration and Ethnic Entrepreneurship Among the Cham Diaspora in Malaysia. Jurnal Kajian wilayah, No 1 Juni 2017, Volume 8. Hlm 1-15.

Sari. BR. 2019. Contesting Religious Beliefs: The Experience of the Cham in Vietnam. International Journal of Interreligious and Intercultural Studies (IJIIS). Volume 2,
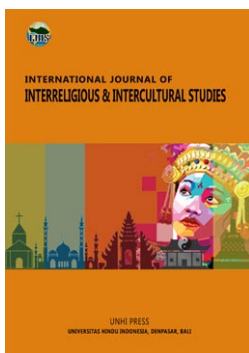
Number 2, October 2019, hlmn 25-41

So, Farina. 2013."Cham Muslims in Malaysia and Thailand: Then and Now". In

"Encountering Asian New Horizon: Contesting and Negotiating in Fluid

Transitions", the 12th API Regional Workshop. Sanur, Bali, 24-27 November 2013.

Schein, Louisa. 2004. "Hmong/Miao Transnationality: Identity Beyond Culture". In Nicholas Tapp, Jean Michaud, Christian Culas, and Gar Yia Lee (eds.) Hmong/Miao in Asia. Chiang Mai, Thailand: Silkworm Books

Scupin. R. 1995. Historical, Ethnographic, and Contemporary Political Analyses of the Muslims of Kampuchea and Vietnam. SOJOURN Vol. 10, No. 2 (1995), pp. 301-28

Wang, Lijung 2007, „Diaspora, Identity and Cultural Citizenship: The Hakkas in "Multicultural Taiwan"", Ethnic and Racial Studies, 30:5: 875-895

Internet:

Catatan sang pelipur lara. http://kerajaan-melayu.blogspot.com/2009/12/champadesachampanagara.html, accessed 12 July 2013.

Prohok. http://en.wikipedia.org/wiki/Prahok, accessed December 2, 2013

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