

Primary School Teacher Education
Faculty of Education UNNES



PROCEEDING



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Primary Education Pivotal Literature and Research UNNES

2018

Themes

Primary Education on The Digital Era

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FOREWORD

Primary Education Pivotal Literature and Research Universitas Negeri Semarang (PEOPLE UNNES) is an International Conference that stands as a leading program of UNNES. It held at Santika Premiere Hotel, Semarang, Indonesia. The theme of the conference is **Primary Education in The Digital Era**. The main issue is about digital culture that is getting populer recently. It is about how to carry on primary education dinamically with the development of technology and information.

Beside the main themes about Primary Education in The Digital Era, there are 10 subthemes that discussed in the parallel session: Educational Technology, Character Education, Conservation Education, Education Curriculum, Media on Learning, Literacy Education, Child Development, Education Research and Development, Art Education, Teacher Competencies.

There were 160 participants attended the conference and 27 papers were selected to publish. Before they were published, 3 (three) reviewers were assigned to review each paper. First, each reviewer reviewed the paper in terms of content and language use. Second, the rejected paper was then sent back to the author, and the accepted paper with minor revision was also sent back to the author to revise.

This conference has redounded at least two benefits. First, it evokes the sensitivity of experts and scholars to spotlight the realities and problems happening in education. Secondly, now that academic works have been continuously done on scientific bases, this dialogue forum is deemed necessary to achieve progressive changes for people in primary education. This precious event is expected to yield best practices in the development of science and social education with strong emphasis on the improvement the quality of education.

Semarang, November 2018

Chief of IC PEOPLE UNNES 2018
Dr. Deni Setiawan, S.Sn, M.Hum

Children's experience and learning opportunities in PERPADUAN (Unity) Pre-school settings in Malaysia

Nordin Mama, PhD.

*Department of Early Childhood Education, Faculty of Human Development
Universiti Pendidikan Sultan Idris, Malaysia.*

Abstract

This paper focuses on children's experience and learning opportunities in ethnically diverse pre-school settings. The study involved 60 children and three teachers from three PERPADUAN (Unity) Pre-school settings. A qualitative methodology was applied to explore children's experience and learning opportunities. Direct observation of children's free play and in-depth interviews were conducted with the children and teachers within 16 weeks. Observation based on instruments from the ECCE Research Project which included two main standards, an element of children's learning and meaningful learning. An indicator of standards started with working towards, meeting the standard and exceeding the standard. The primary findings of this case study emergent from the exceeding standard that children's learning experience and opportunities are divided into three: Children need the challenge to be competent, Active learning and learning comes from social interactions. Given an opportunity, the children are skillful in the initiated learning experience. Finally, the PERPADUAN Pre-school ethos toward children's social development is to promote a feeling of unity and acceptance among the ethnically diverse society of Malaysia.

Keywords: *Pre-school, Teaching and Learning, Early Childhood*





QUALITY ECCE (TEACHING, LEARNING & ASSESSMENT)

CHILDREN'S EXPERIENCE AND LEARNING OPPORTUNITIES

Associate Professor Dr. Nordin Mamat
 Department of Early Childhood Education,
 Faculty of Human Development
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Your Date Here

PROJECT 3/TLA

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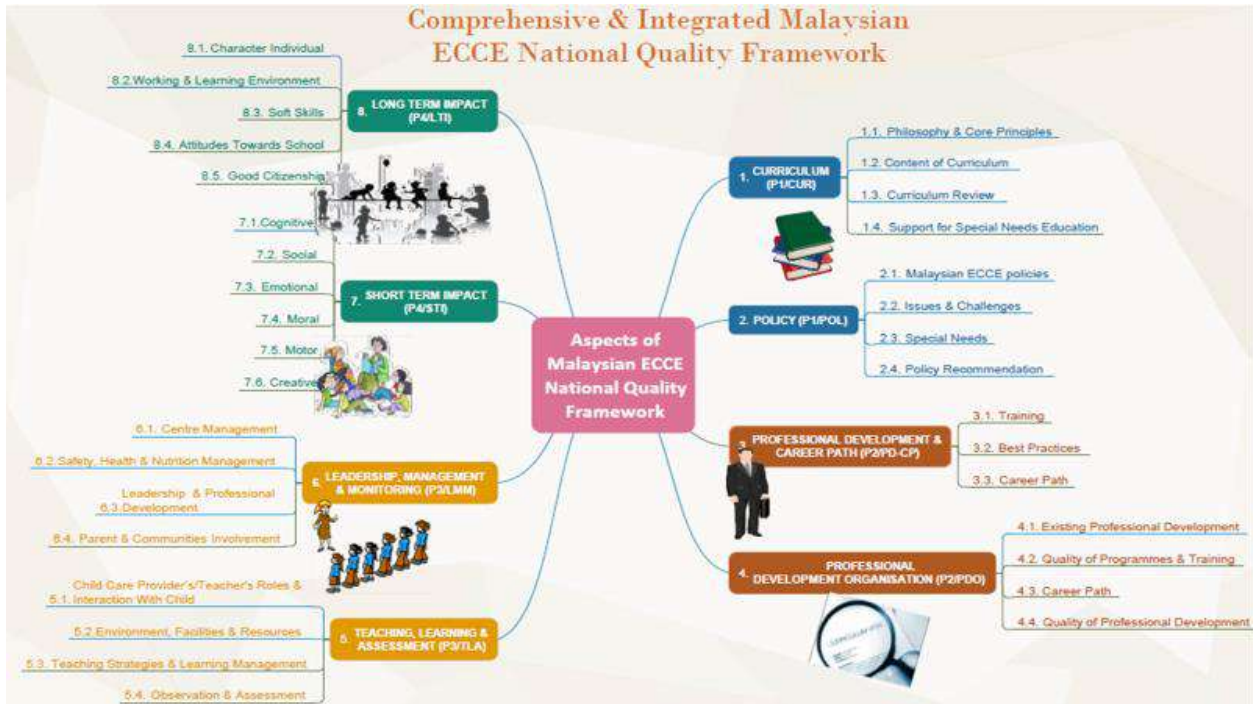
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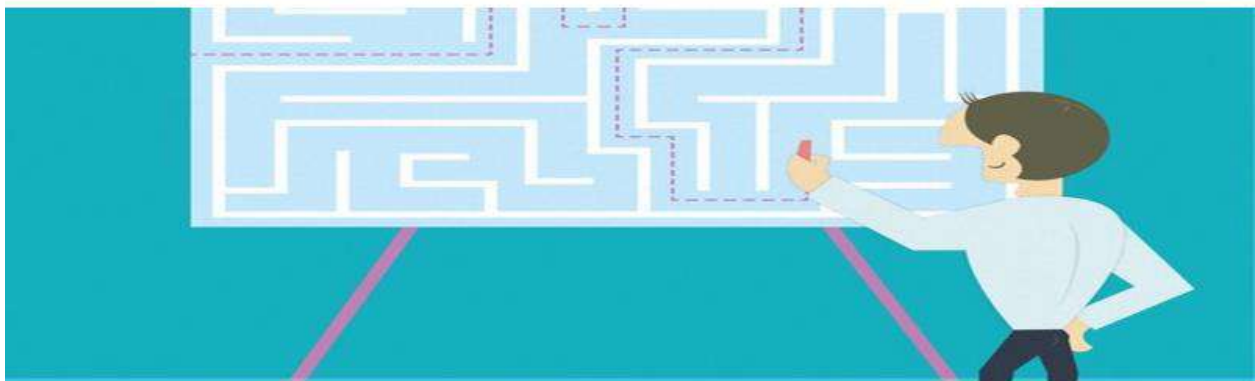
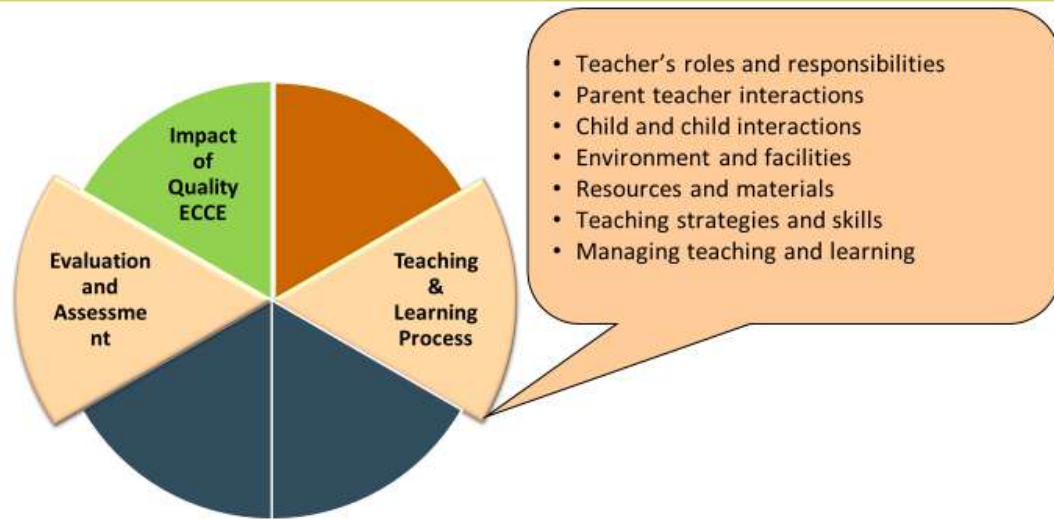
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CONTENT

- I. BACKGROUND
- II. MAPPING/Framework
- III. RESEARCH OBJECTIVES
- IV. RESEARCH DESIGN
- V. SAMPLING METHODS
- VI. DATA COLLECTION
- VII. RESULT
- VIII. DISCUSSION & CONCLUSION

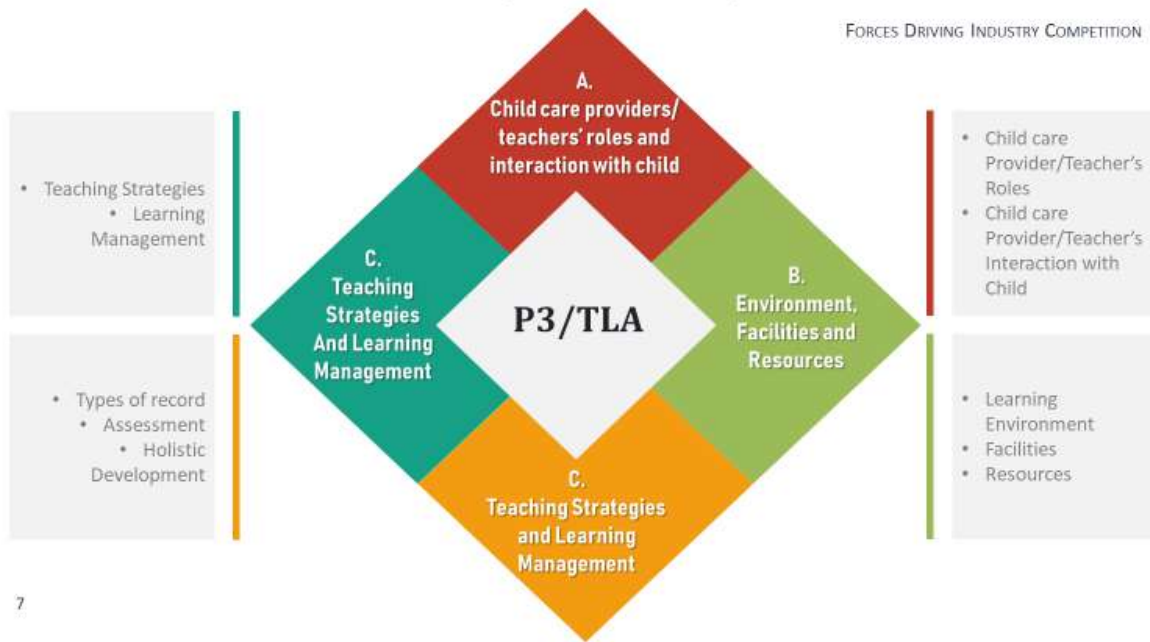
BACKGROUND



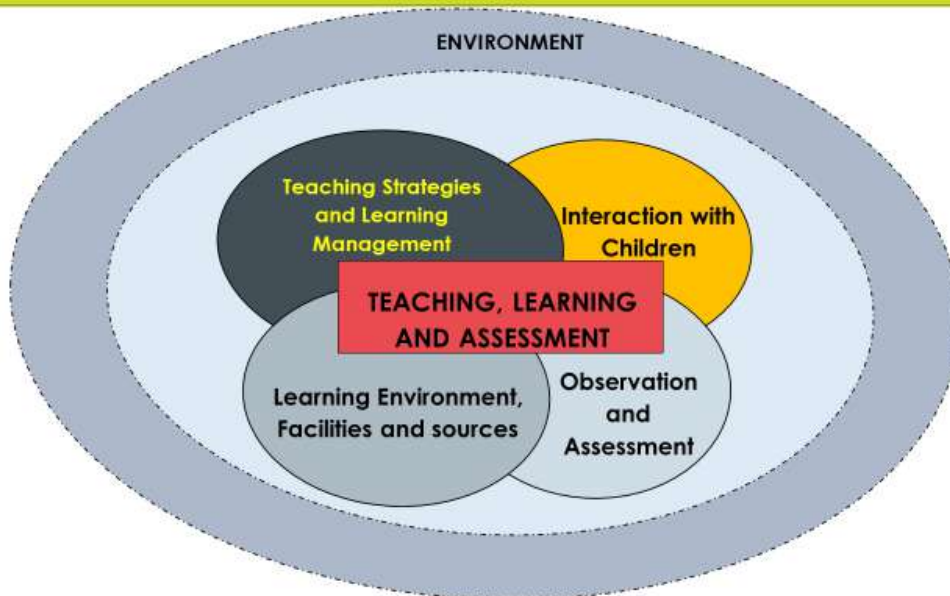
II. MAPPING/FRAMWORK

P3/TLA MAPPING/CONCEPTUAL FRAMEWORK


FORCES DRIVING INDUSTRY COMPETITION




P3/TLA MODEL



RESEARCH OBJECTIVES

02 
To develop a quality
ECCE framework of
TLA and LMM.



01 
To evaluate the
quality of teaching,
learning and
assessment in ECCE.

02 
To identify children's experience and
learning opportunities in school setting

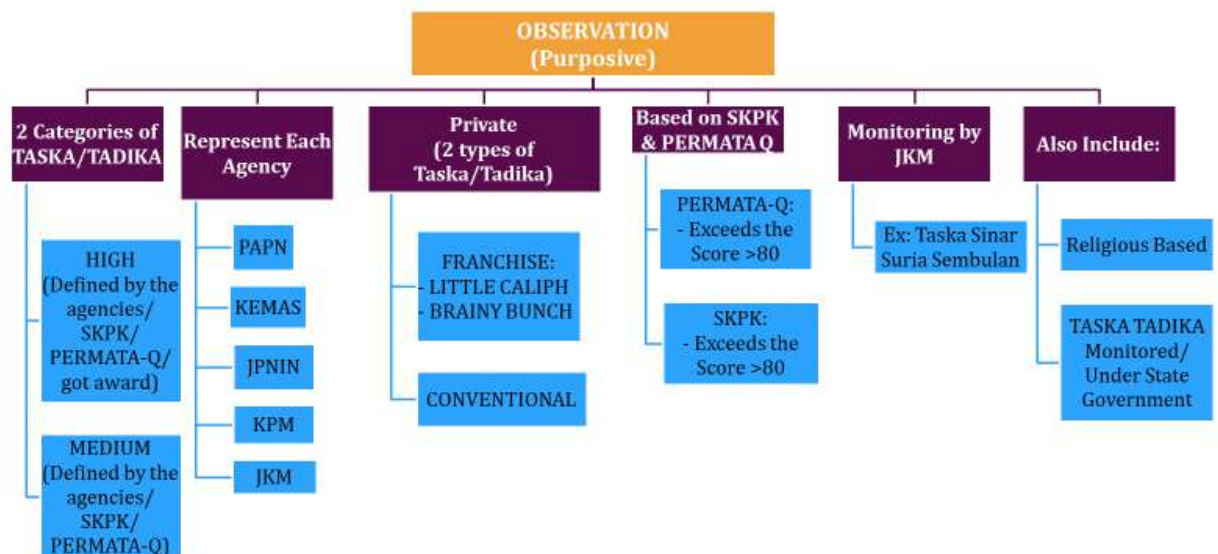


VI. METHOD

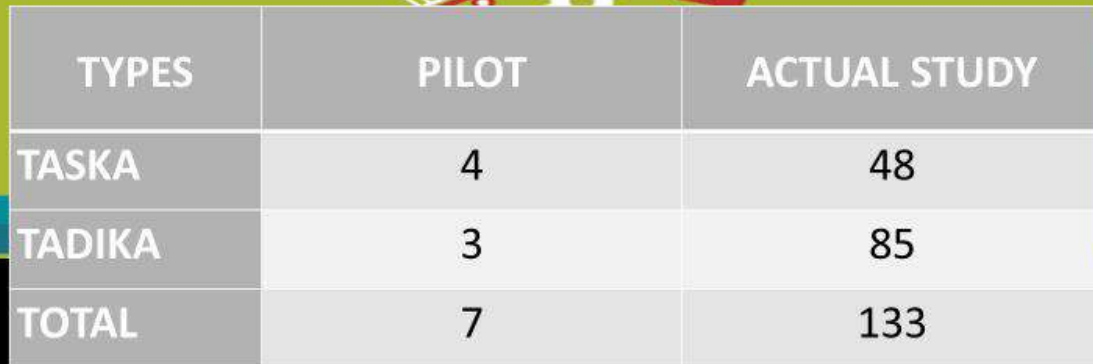


SAMPLING METHOD

OBSERVATION



DATA COLLECTION



TYPES	PILOT	ACTUAL STUDY
TASKA	4	48
TADIKA	3	85
TOTAL	7	133



RESULTS

What and how benefit of children's experience and learning opportunities with new technology?

- Children need the challenge to be competent
- Active learning
- Learning comes from social interactions

THE PRIMARY FINDINGS

Children need an environment in which they can flourish and grow develop positive self-esteem – Expose ICT & Create Technology savvy



Most of the group of boys playing in this place and at top of the block and most of the girls played inside the block circle. After a while they feel low challenge and has high capabilities, they are bored, and a girl starts climb block and walk on tunnels.
(Observation P122: Children Group)

**CHILDREN NEED THE CHALLENGE TO BE
COMPETENT**

Given an opportunity, the children are skillful in the initiated learning experience



Daily interactions and Playful fun has serious benefits

- Learn social savvy
- Develop Self-confidence
- Learn to communicate their needs and master challenges in their world.
- Young children thrive when they encounter challenges they can meet;
- they flourish when they are free to explore and feel that caring adult encourage and take pleasure in their emerging interests and skills.

LEARNING COMES FROM SOCIAL INTERACTIONS

Engagement with others in interactive activities, or engagement with materials, forms the dynamics of knowledge and understanding.



Engagement

Constantly changing, adjusting and rearranging meaning and their understanding of things.

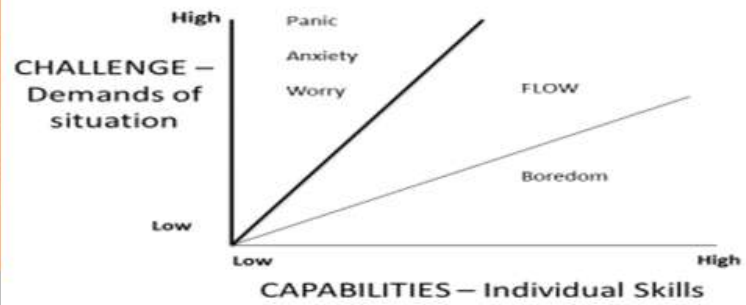
Children are interested in experiments, trial and error, and representing what they are learning through construction and play.

Engagement -
Because of sharing same object (handkerchiefs)
They have same interest
Object develop social relationships

CHILDREN ARE ACTIVE LEARNER

SUGGESTION AND DISCUSSION THEORY OF FLOW OR OPTIMAL

Mihaly Csikszentmihaly's theory of flow or optimal, learning children are happy most happy when completely absorbed in an activity they are engaged in and learn most when they are happy. The theory explains:



If a child is asked to perform a low challenge and has low capabilities, they have apathy.

If a child is asked to perform a low challenge and has high capabilities, they are bored.

If a child is asked to perform a high challenge and they have low capabilities, they panic and anxious.

If a child is asked to perform a challenge that is equal or slightly higher than their capabilities, they are in flow.



THANK **Y**OU!

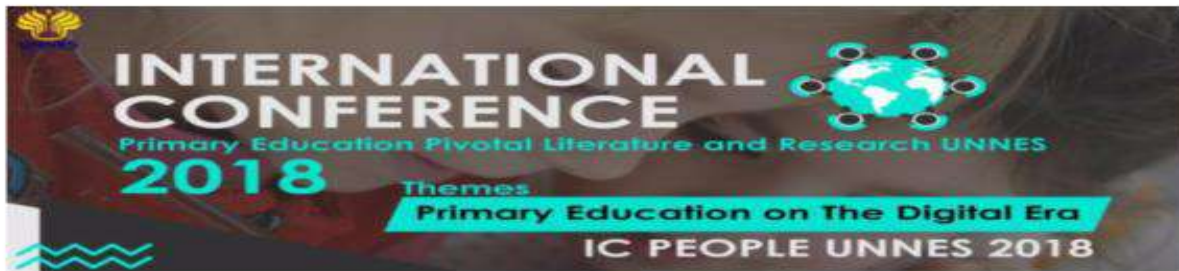
Preparing Professional Elementary School Teachers For Industry 4.0's Challenges: A project on Personal Knowledge Management

Eric Cheng

The Education University of Hong Kong

Abstract

- a case study of developing pre-service teachers' language teaching skills by applying a set of eLearning tools in a Lesson Study approach. The study integrated e-learning activities, eLearning tools and collaborative action research in a Lesson Study course to develop pre-service teachers instructional design skills for language teaching.
- This study adopted an experimental design. The eLearning tools included Zotero for supporting effective citation, Google Alert for retrieving resources, Google Drive for documents storing and co-editing, Prezi for effective presentation and EverNote for note-taking were introduced to the experimental group. The Lesson Study course provides 30 pre-service teachers with a different degree of opportunities to carry out instructional design, lesson implementation for language teaching and reflection through e-learning and collaborative action research activities assigned during the on-line lessons and after class discussion. Another Lesson Study course with 30 participants was selected as a control group. A Solomon four group quasi-experimental research design was used to collect data.
- Results showed that the injection of e-learning activities using the tools in the Lesson Study course had an impact on most of the pre-service teachers in terms of nurturing their competencies on instructional design and assessment strategies for language. Discussion, cooperative learning, task-based learning and modelling were identified as effective teaching strategies that integrated with the eLearning tools for developing pre-server teachers with instructional design. This paper presentation will introduce how collaborative eLearning tools influenced a group of pre-service teacher trainers in The Education University of Hong Kong. This study highlights how such tools were integrated into an instructional design teacher training programme. Free, and easy to use blended learning tools that promote active learning will be introduced.
- As we engage in this transformation, what are the innovation pedagogies informing student success? How are new generation technologies shaping institutional development, curriculum refresh and student learning journeys? How are institutional leaders pro-actively shifting gears to shape the future of education? How are industry and students as partners becoming more involved in applied research? What are the impacts of Education 4.0 on applied degree education outcomes?



**Managing Primary Education Curriculum for The Digital Era:
A Hong Kong Case**

Eric Cheng

The Education University of Hong Kong

15 November 2018

Santika Premiere Hotel, Semarang

1



The Education University of Hong Kong is a publicly-funded tertiary institution dedicated to the advancement of teaching and learning, through a diverse offering of academic and research programmes on teacher education and complementary social sciences and humanities disciplines.

EDUHK ranked 9th in the world and 2nd in Asia in Education QS World University Rankings by Subject 2018



2018/12/10

Eric Cheng

2



- HK is an international financial center
- Education in HK:
 - Developing human capital to support economic
 - Compete with Asia Pacific Countries
- Value for Managing Education
 - Very Instrumental: academic performance driven
- School education:
 - examination oriented / students aim at promoting to University
 - Study for future career
- University Study
 - Career oriented

Are these similar to yours?

10-Dec-18

Eric Cheng

3

Warm Up Quiz

- There are around 8 Million people in HK.
- How many primary schools in HK?
- How many secondary schools in HK?
- <http://www.edb.gov.hk/index.aspx?nodeID=396&langno=1>

10-Dec-18

Eric Cheng

4

	Total number of schools	Total number of students
Kindergarten Education	978	176,397
Primary Education	571	329,300
Secondary Education	509	373,131

10-Dec-18

Eric Cheng

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Education System in HK

From 2009

- 3/4 years Kindergarten (2/3 -6 year old)
- 6 years Primary (6-12 year old)
- 6 years Secondary (12- 18 year old)
- 4 years University Degree (18 – 22 year old)
- 5 years Bachelor of Education Degree in EdUHK

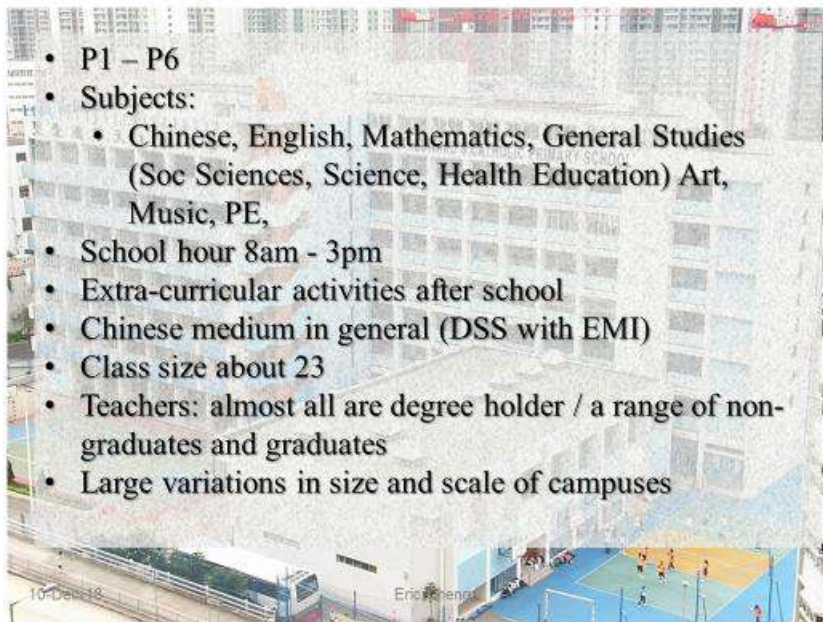
Are these same with the education system in your country?

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Primary Education



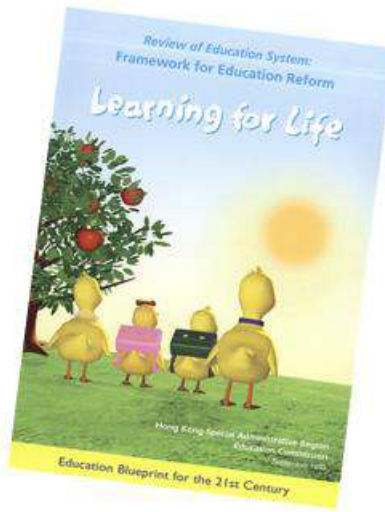
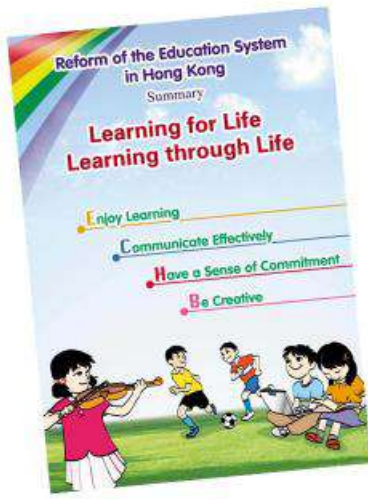
- P1 – P6
- Subjects:
 - Chinese, English, Mathematics, General Studies (Soc Sciences, Science, Health Education) Art, Music, PE,
- School hour 8am - 3pm
- Extra-curricular activities after school
- Chinese medium in general (DSS with EMI)
- Class size about 23
- Teachers: almost all are degree holder / a range of non-graduates and graduates
- Large variations in size and scale of campuses

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7

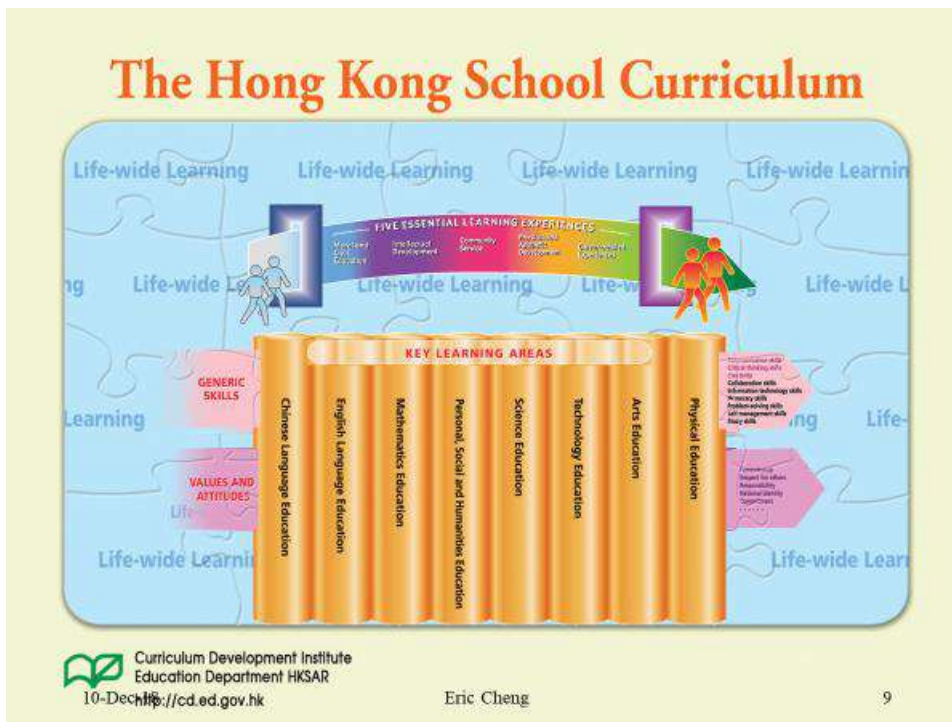
Curriculum Reform in HK



10-Dec-18

Eric Cheng

8



9 Generic Skills Values and attitudes

1. Communications skills
 2. Critical thinking skills
 3. Creativity
 4. Collaboration skills
 5. **IT skills**
 6. Numeracy skills
 7. Problem-solving skills
 8. Self-management skills
 9. Study skills
- National identity
 - Responsibility
 - Peseverance
 - Respect for others
 - Commitment
 - Trust
 - Modesty etc.
- 4 Key Tasks:-
- Moral & Civic Education
 - Reading to Learn
 - Project Learning
 - IT for interactive learning

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10

Directions in Teaching and Learning

- From emphasis on teaching to emphasis on learning
- Emphasis on the provision of suitable LE (Learning experiences)
- Interactive learning
- Use of IT
- Group and collaborative learning
- Self-learning and study skills
- Use of projects
- Use of portfolios
- Reading to Learn
- Life-long and Life-wide learning
- Use of community and society resources
- Increasing reliance on formative assessment

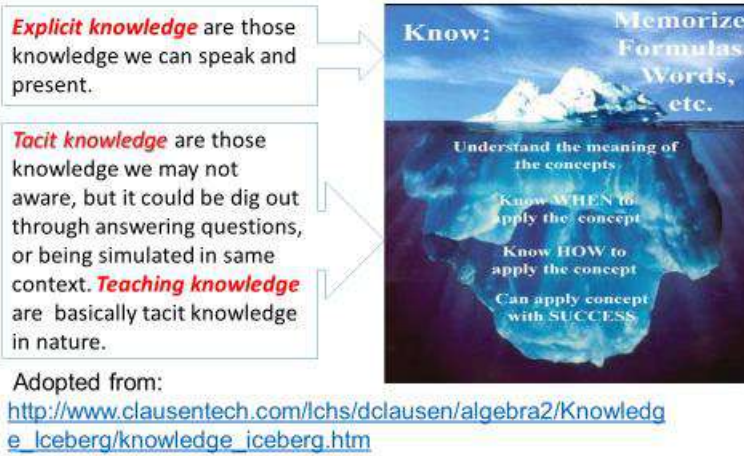


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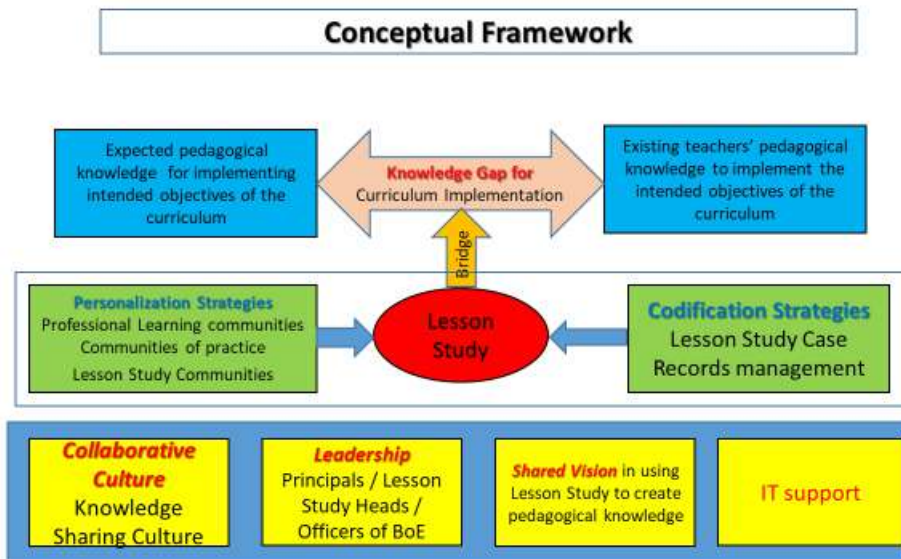
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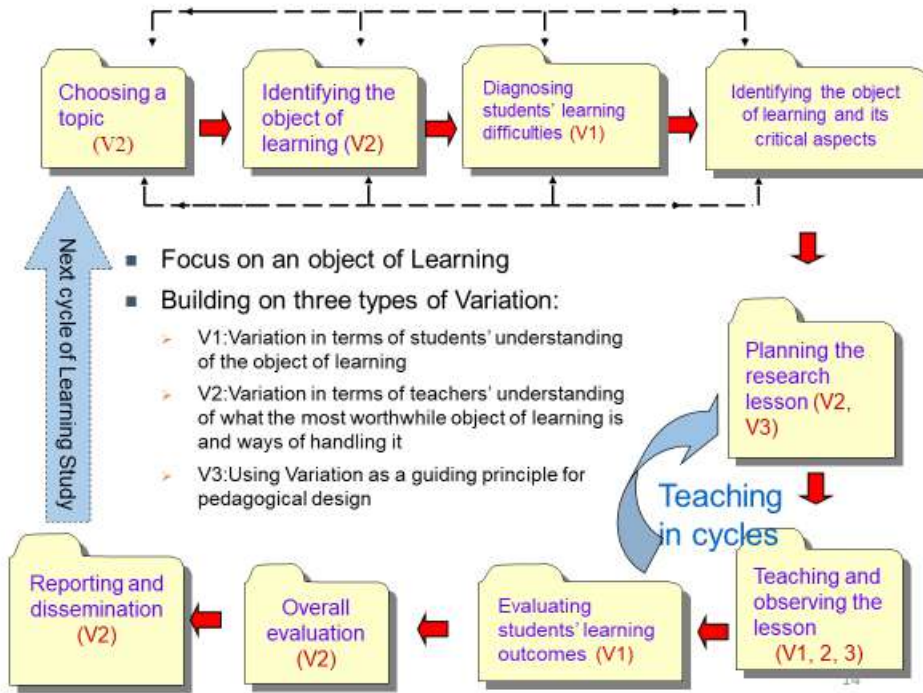
11

Explicit and Tacit Knowledge



12



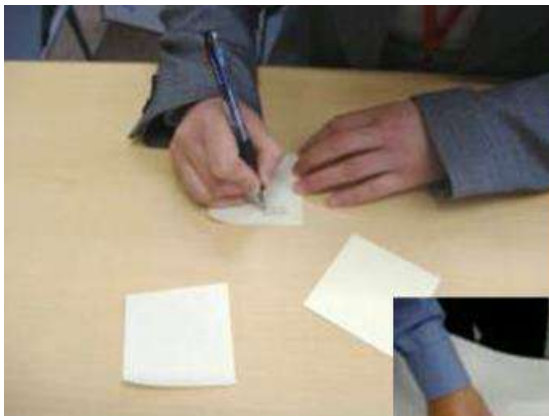




Lesson observation



Eric Cheng



Write some memos of Lesson Study



Eric Cheng

17

Educational center of Ibaragi

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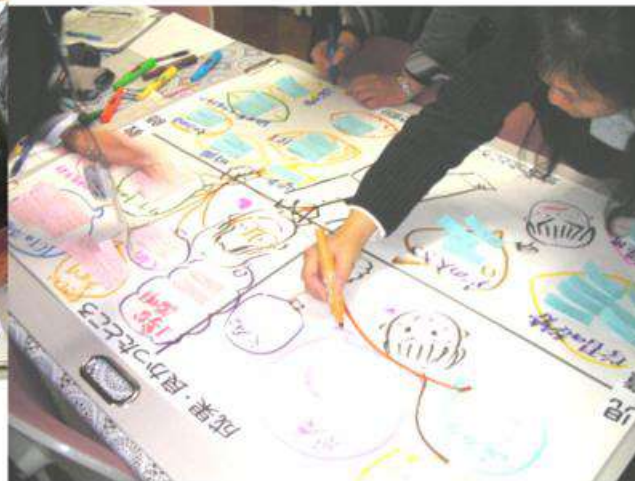


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18



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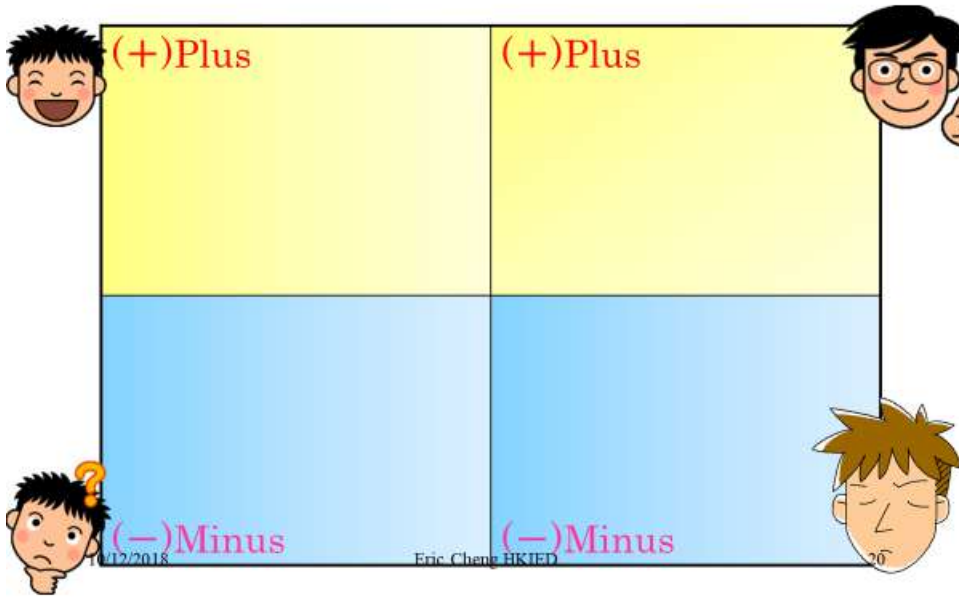


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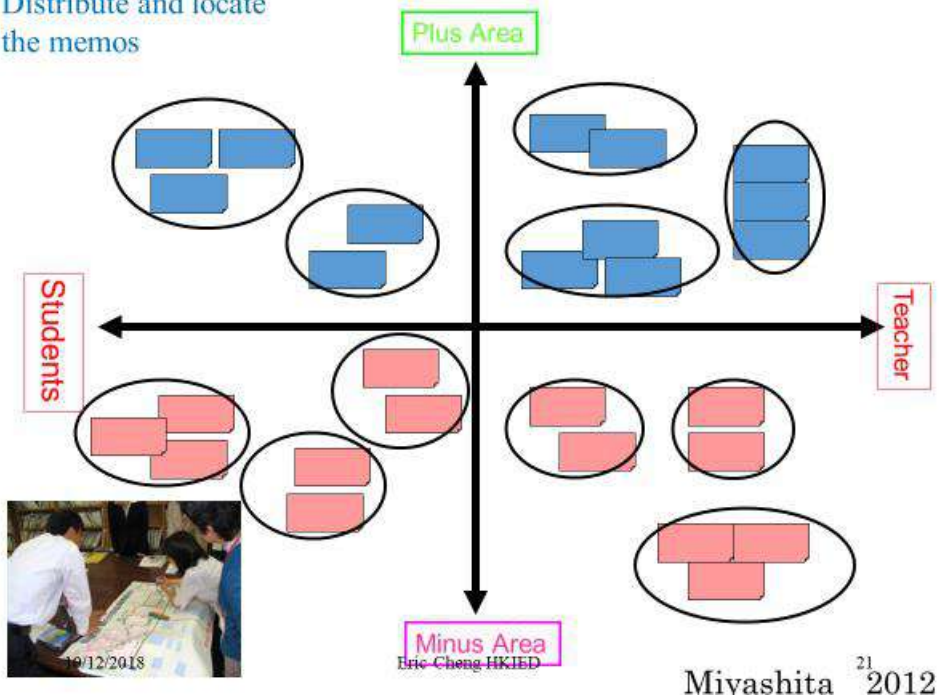
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Educational center of Ibaragi pre

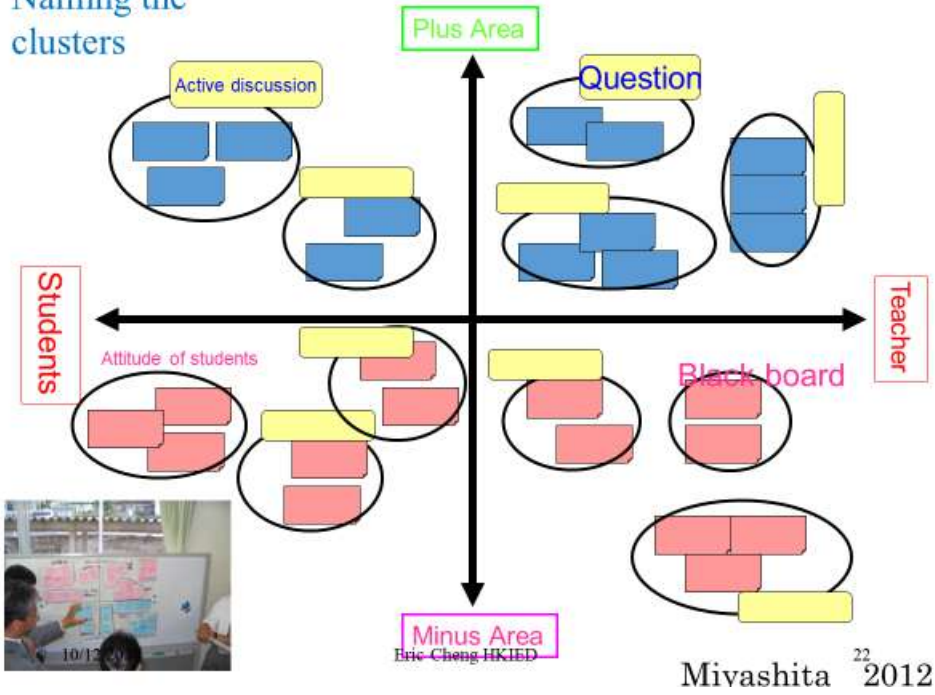
Plan do check act: Japan Lesson Study



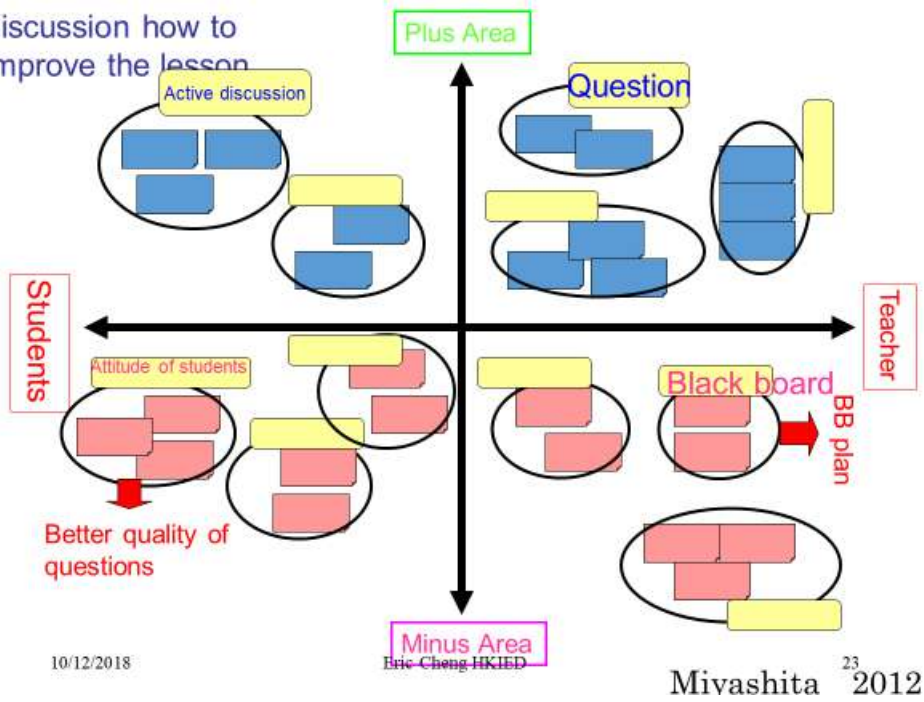
Distribute and locate the memos



Naming the clusters



discussion how to improve the lesson





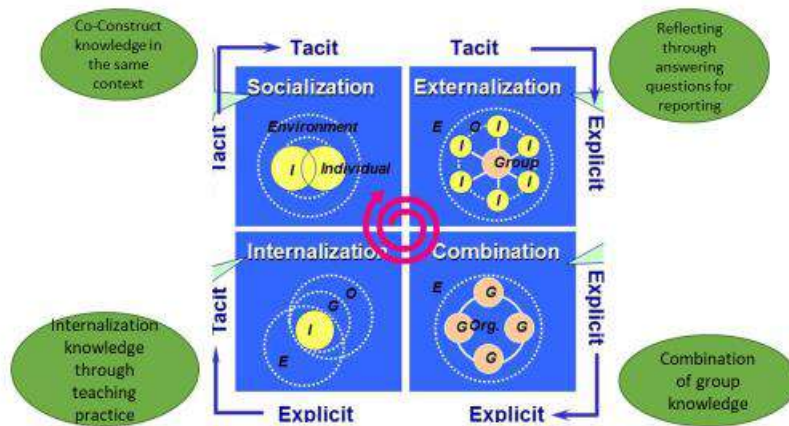
Presentations of each group





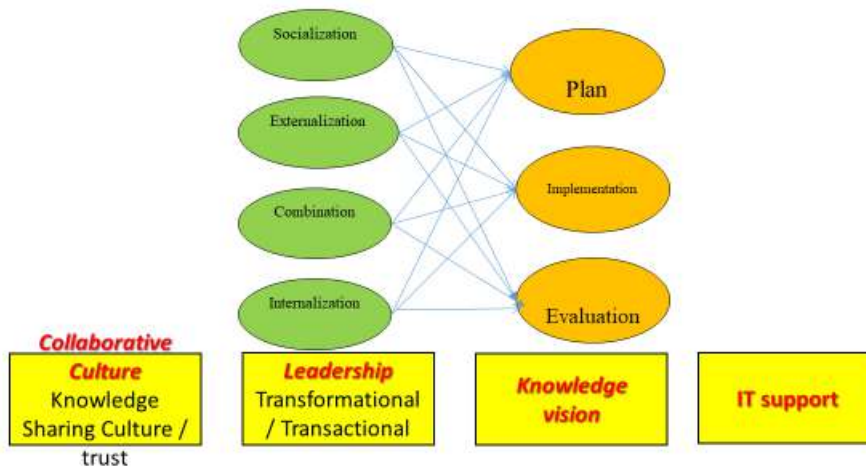
Eric Cheng HKIED

Nonaka SECI Model

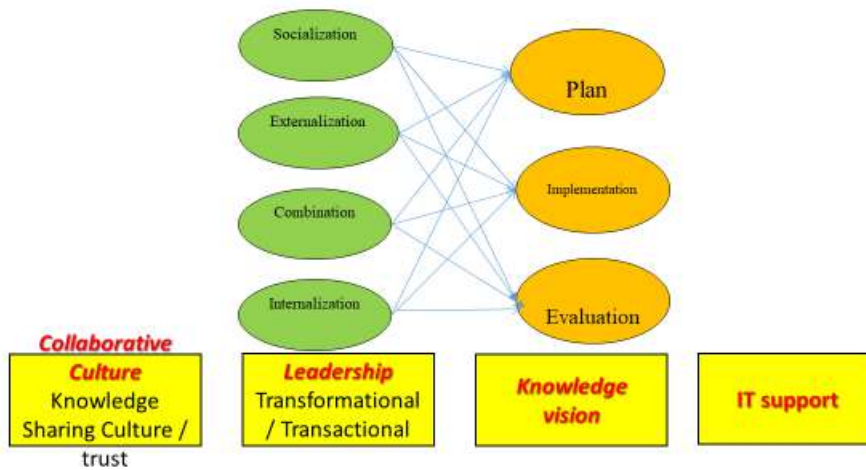


Nonaka, I., and Takeuchi, H. (1995). *The knowledge-creating company: How Japanese companies create the dynamics of innovation*, Oxford University Press, New York. ²⁷

Conceptual Framework: Using SECI model to predict PDC (PIE) cycle

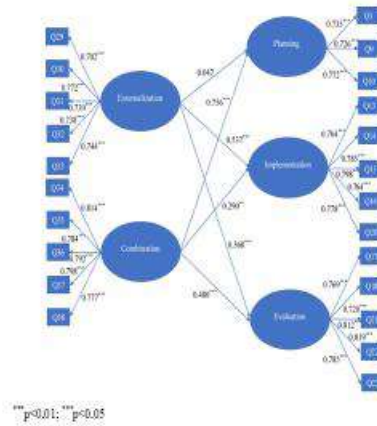
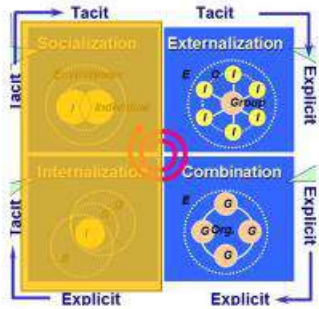


Conceptual Framework: Using SECI model to predict PDC (PIE) cycle



A SEM model

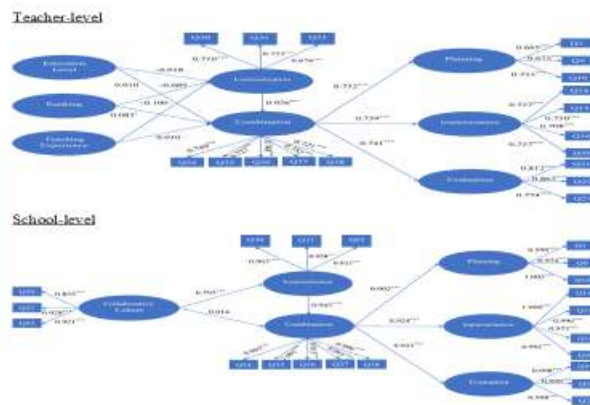
- A new single-level SEM model was then developed as an outcome to indicate the relationship between the SECI mechanism and the PDC process.



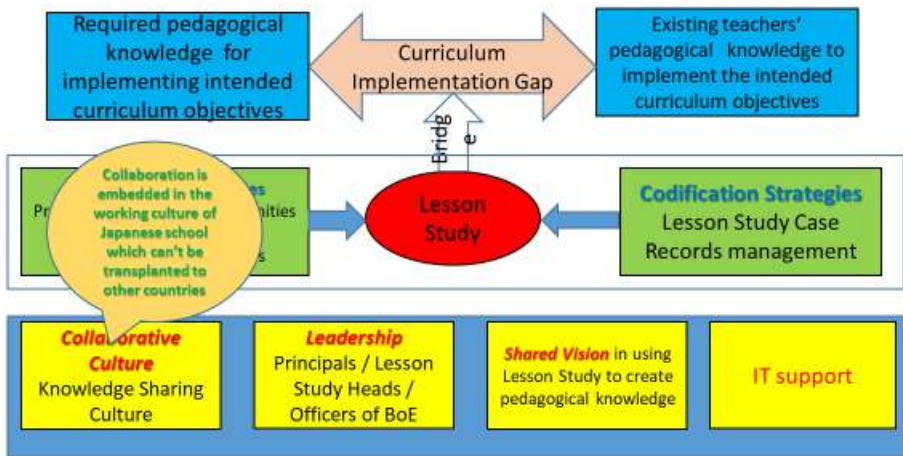
***p<0.01; **p<0.05
 Figure 4 The New Single-Level SEM model for the SECI Mechanism and the Strategic Planning Capacity (SSEM 2)

A Multilevel SEM Model

Teacher personal characteristic will not affect the SECI knowledge creation process. The collaborative culture predicts the knowledge externalization process of the Lesson Study group.



***p<0.01; *p<0.1
 Figure 6 The Alternative Multilevel SEM Model (MSEM 3)



Author: Dr CHENG Chi Keung Eric

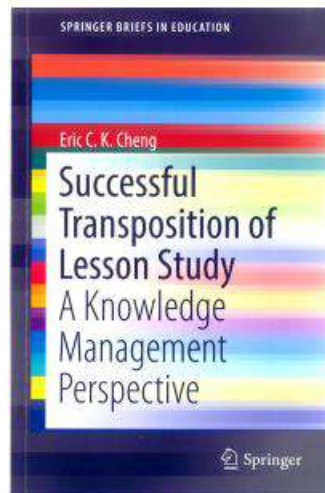
Title: Successful Transposition of Lesson Study: A Knowledge Management Perspective

Publisher: Springer

Year of Publication: 2018

About the Book

This book analyses the organisation cultures that promote Japanese Lesson Study, identifies the soul of lesson study, which is missing in other cultures, and discusses the conditions for successfully transplanting the Lesson Study to other cultures. Adopting Nonaka and Takeuchi's (1995) SECI knowledge creation model as the analytical lens, it explores the tacit and explicit knowledge convention and creation processes in lesson study. Unpacking the mechanism of the knowledge management process and practices could assist policy makers and school administrators, educators in contextualising lesson study to their school systems. The book provides an accessible discussion of the benefits and challenges of introducing lesson study, and presents three new research dimensions to analyse it: reviewing the historical development of lesson study in terms of the pendulum swings between professional accountability and state accountability in developing the school-based curriculum and the national curriculum; examining lesson study as a knowledge management tool for creating pedagogical knowledge for curriculum implementation; and studying the 'kaizen kata' embedded in the PDCA cycles of lesson study as an organization routine for school improvement.



End of presentation!
Thank you!

Q&A

Observations of elementary Education literacy in indonesia

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OBSERVATIONS OF ELEMENTARY EDUCATION LITERACY IN INDONESIA

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ABOUT ME

- Faculty member in PGSD at Ohio State University teaching S1, S2, and S3 students including many Indonesian students
- Direct US-Indonesian Teacher Education Consortium
- UM is a member
- 18 Indonesian and 3 US Universities and support student, guru, and docent exchange
- www.USINTEC.org
- Been to Indonesian over 35 times and Malang 6-8 times

TODAY SOMETHING DIFFERENT

- You are the Experts
- I can ask you questions
- You answer them in the Q & A

MY RESEARCH

- Indonesia Lags behind other ASEAN nations
- 3rd Grade Classrooms to identify functional literacy
- What are the writing and reading practices of Indonesian 3rd graders?

CLASSROOM OBSERVATIONS

- 14 Classrooms on 5 islands including cities and villages; public, private, islamic, lab school
- Every 2 months for a year
- Preliminary findings
- NO GROUPS – Always whole class
- MINIMAL WRITING
- In 2 hours, students wrote 8 words.
- Propose Teachers compliment the book with other activities

LITERACY

- Reading
- Writing
- Speaking
- Listening
- Observing
- Responding

IN THIS PRESENTATION

- Compare US and Indonesia
- Cannot compare 2 countries so big
- What I really mean is the US Classrooms I have seen and the Indonesian classrooms I have seen
- By NO MEANS is the US a model of how to run schools
- But the US values some literacy practices that may be relevant to Indonesia

NINE EDUCATION CONCEPTS

Concepts seem present in
US but not in Indonesia

1. CURRICULAR ALIGNMENT: K – 1

What I found in Indonesia while observing

- Kindergarten = Play Pedagogy
- Grade 1 entrance test: Reading, Writing, Numbers
- Seems to be resolved with private tutoring
- Alternatives: Realign the curriculum

2. EMERGING LITERACY

- In US: Beginner, Intermediate, Advanced.
- Beginner, age 3 – 4. Holds the pencils. Writes name.
- Age 5. Writes simple words; reads simple books.
- Intermediate, Age 6. Writes and reads sentences.
- Advanced. Age 8. Reads Chapter Books. Writes parags.
- In Indonesia: “The child should be reading by the end of grade 1.” Sounds more like a switch.
- Alternatives: Take an Expanded View of Reading

3. PHONICS VS WHOLE LANGUAGE

- In Indonesia: Focus on letter sound relationships at the letter, syllable and whole word level.
- In US: The same, AND other features:
 1. Using Word Wall with words
 2. Pictures in the book to support meaning
 3. Focus on quality literature to support reading
 4. Reading: Teacher pointing to words, pairs, small groups, individual
 5. Alternatives: Put Words on the Wall.

4. TEACHER READS STUDENTS READ AS CHORUS

- In US - Ways for the teacher to read –
- Big Book – use pointer to show word / sound match
- Every student follows using finger
- Struggling students? Small group reads book with T
- In Indonesia: T reads small text book
- Students recite, often from short term memory, but are they reading?
- Clearly some are just reciting, but are lost with long para
- Alternatives: Point to each word in the book

5. DIFFERENTIATED LEARNING

- Supporting students who are ahead and those who are behind.
- In US: Alternate texts, Small groups, Leveled Books.
- In Indonesia: Whole group learning except during seat work when students may pair up.
- Alternatives: Use Groups

6. LIMITED WRITING ACTIVITIES

- In US: Students write in notebook. Or on a teacher-created template.
- In Indonesia (New Curriculum): Students write in 'consumable' text book but have limited space
- In Indonesia (Old Curriculum): Students wrote in notebook and had a lot of space. The 'Old' text book reduced printing costs because it was re-used
- Alternatives: Write more in a notebook

7. SILENT READING TIME BOOKS

USA – May have silent reading time
Large variety of books in the classroom

Indonesia – Text books or donated books
Not attractively displayed

Alternatives - Book order displayed on
pipes at classroom entrance

8. LEVELED BOOKS

In US - Books are leveled from lower to higher complexity

Fry's "Readability Formula" – Dividing the number of words by the number of syllables and passage length determines a 'grade level'

- In Indonesia – All books placed together on shelf
- Alternative: Order books from easier to harder

9. GROUPS

- US – Uses groups. Often 4.
- Indonesia – Students may sit as a group but have no group tasks.
- Example of a team task where everyone ran in different directions, suggesting the group doesn't know how to do group work
- Alternative: Assign a task to be done by the group.

CONCLUSION

- Vygotsky suggests there should be big gaps in the zone of proximal development between what the child can do and wants to do
- Hypothesis: Is Indonesian Elementary Education holding kids back, keeping them 'too low too long?'

OBSERVATIONS OF ELEMENTARY EDUCATION LITERACY IN INDONESIA

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Beyond an Economic Model: Bringing Social Justice into ECE

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Beyond an Economic Model: Bringing Social Justice into ECE

Vina Adriyani
Universitas Pendidikan Indonesia

Existing and Emerging Discourse in ECE in Indonesia

- 0 Demographic Bonus by 2030
- 0 Generasi Emas: Golden Generation

-
- 0 Very much influenced by Heckman's (2007) model
of
economy that sees education merely as a form of
investment
 - 0 Associated with the human capital discourse in
ECE
-

Bonus Demografi Indonesia

BONUS DEMOGRAFI adalah peningkatan usia penduduk

Bkkbn
www.bkkbn.go.id
www.kab.go.id

penduduk yang bisa bekerja jumlahnya sangat cukup

jumlah tanggungan atau penduduk usia nonproduktif lebih sedikit

Sumber data: BKKBN

Terjadi **HANYA SEKALI** dalam sejarah sebuah bangsa

Jendela Peluang
 Proyeksi terjadi selama 10 tahun (2009-2038) dengan angka ketergantungan sebesar 44 per 100. Bertambah menjadi 4 tahun (2039-2041) karena tingkat fertilitas stagnan. Angka ketergantungan 47 per 100.

Gagal bila

1. Tingkat kelahiran belum dapat dikurangkan
2. Penduduk terus meningkat akibat peningkatan status kesehatan.
3. Program "BERSIAP" tidak terpancuh.

#BKKBN #KampungKB

www.ketunggaliaonline.s.a.a

Mengapa 2045?

Rentang 2020-2045, 70% penduduk Indonesia dalam usia produktif (15-64 tahun).

Pendapatan per kapita Rp 17.000
 Diproyeksikan menjadi salah satu dari Tujuh kekuatan ekonomi terbesar di dunia.

45 tahun
 generasi emas tahun 2030

Generasi masa depan Indonesia yang berartinya

- Memiliki kecerdasan yang komprehensif yakni produktif, kreatif, inovatif, dan berkarakter.
- Sehat, menjajal kemampuan dalam interaksi.
- Berperadaban unggul.

Problematising the Economic Model

- 0 Children as a mean rather than an end
- 0 Built on the neoliberal and neo-colonial assumption of children and childhood
- 0 Potentially construct different ways of childhood as “the other” e.g, childhood in the rural area and hence it becomes a site for state and NGO’s intervention
- 0 Overlooks social justice issue

What are problems related to social justice

- 0 Browne (2004), Paechter (2007), and Warin and Adriany (2017) also illuminate the extent to which ECE has been very much gendered.
- 0 Francis and Mills (2012) have even claimed that it is undoubted that school has become a site for violence which perpetuates social inequalities, such as racism and gender inequality, psychological injury and exclusion of pupils, institutional disciplines and surveillance and how these affect teachers’ experiences in the school.

- 0 Legacy of postcolonialisation (Gupta, 2006, 2008; Armdt,)
- 0 Teachers' Low Salary and Status (Osgood, 2006)

The importance of Social Inclusion in ECCE?

- 0 Education is a tool to dismantle all forms of racism, prejudice and hegemonic thought and behaviour (al-Hussein 2000; Hollinsworth 2006; Siraj-Blatchford 2006; Calma 2007; Lynn 2007).

0 The United Nations Convention on the Rights of the Child states the aim of educators should be to prepare free society, in the 'spirit of understanding, peace, tolerance, equality of sexes, and friendship among all peoples, ethnic, national and religious groups and persons of indigenous origin' (Save the Children 1997, Article 29.1d, 109).

0 ECCE can also become a site where students from different racial, ethnic, religious and cultural groups learn to appreciate each other and to live together (Banks and Banks, p. 152)

“ECCE teaching and practices” which are culturally sensitive, would likely to be more responsive to the disadvantaged children and hence, would bring more significant impact. (Li et al., 2016, p. 435)

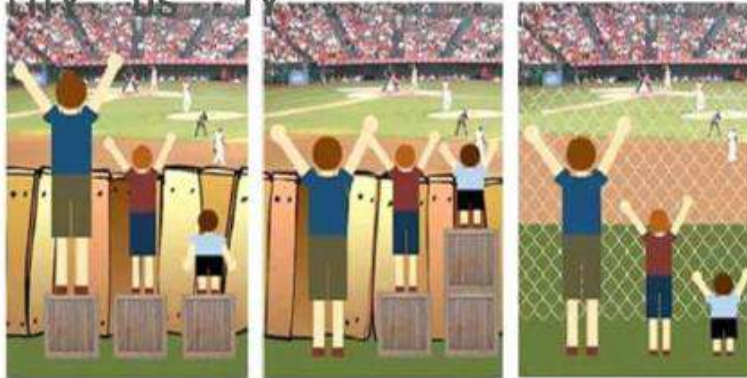
Obstacles in introducing Social Justice in ECE

- 0 Equality vs Equity
 - 0 Neoliberal legacy
 - 0 Pervasiveness on
Developmentalism
- (Solehudin & Adriany, 2017)

Where to Start?

- 0 Teachers training institute should go beyond developmentalism
- 0 Teachers need to be given a space to expand and explore their teaching

EQUA VERS EQUI LITY US TY



In the first image, it is assumed that everyone will benefit from the same supports. They are being treated equally.

In the second image, individuals are given different supports to make it possible for them to have equal access to the game. They are being treated equitably.

In the third image, all three can see the game without any supports or accommodations because the cause of the inequity was addressed. The systemic barrier has been removed.



THANK YOU

The Effect of Portofolio Assessments on Student Learning Outcomes in Learning for Civic Education in Primary School

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Abstract

The purpose of this study was to determine the performance of students in Civics Education learning by using portfolio assessment. This study was categorized in quasi-experimental research. This study wanted to see how the performance of students in Civics Education learning using portfolio assessment, through experimental designs using one group pretest-posttest design. The results of the study showed that there was an increase in the percentage of student performance after following the study using portfolio assessment. The results of observations of student activities showed an increase in activity or performance after participating in learning with portfolio assessment. Observation of student activities in RPP 01 obtained an activity percentage of 74%, in RPP 02 the percentage of activity was 81% and at the end of learning the portfolio assessment in RPP 03 increased to 88.80%. From the three analysis of differences in significance analysis, it was found that overall tcount was ttable ($t_h > t_t$), then null hypothesis (H_0) hypothesis proposed was rejected and the Alternative Hypothesis (H_a) was accepted. Based on the results of the study, it can be conclusively said that portfolio assessment in Civics Education learning has shown an increase in performance of fourth grade students at SD GMIM Sonder.

Keywords: *Portfolio Assesment, Students Performance, Civic Education*

INTRODUCTION

Law No. 20 of 2003, concerning the National Education System, states that Civic education is a subject that focuses on self-formation that varies in terms of religion, socioculture, language, age, and ethnicity to become intelligent, skilled and Indonesian citizens. character in accordance with that

mandated by Pancasila and the 1945 Constitution (Fajar, 2004: 141).

Furthermore, according to Warsono (2006: 10) civic education aims to shape the moral, personality and national identity based on Pancasila. In connection with the opinions and objectives of the national education, the learning of civic education at the elementary

and secondary education level, conceptually contains a major commitment in achieving the dimensions of the goal of developing a solid, intelligent and independent personality and sense of social and national responsibility.

When reviewing and observing public criticism of civic education subject matter so far it must be admitted that civic education subject matter lacks praxis values but is only political or an indoctrination tool for the benefit of government power. This makes the learning method in the teaching and learning process seem rigid, less flexible, less democratic and the teacher tends to be more dominant. It would be wise if the teaching and learning process was interspersed with methods that challenged students to try to improve their abilities,

iques that will be used to assess each aspect of the objectives to be achieved, namely cognitive, affective and psychomotor. One reason is because some teachers do not understand the assessment in depth. Most teachers do not have a formal education background specifically in educational assessment (Supranata & Hatta, 2006: 70). Teachers often feel well following the development of various teaching methods, but claim to have difficulty following developments in educational assessment.

Therefore, it is necessary to think of an assessment that can see the progress of student learning continuously, which is a process of assessment that pays attention to each student's work. The results of the student's work are documented in the portfolio in the class and used to see the progress of their learning. In this assessment process the teacher directs students to be careful in completing Civic education assignments so students can pay attention to their mistakes while correcting these errors.

Portfolio assessment as a valuation model can improve learning activities, so it is expected to improve the level of understanding and learning outcomes and can improve student performance in elementary schools. It is also expected to motivate students to find their own knowledge and understanding in learning. One

including the application of a portfolio assessment model.

Most education experts argue that educational assessment is as important as goals and methods. However, this has not received enough attention, as expressed by Ariyanto (2002: 3), which cites the opinion of Thrnton Blanc, which states that the assessment program is one of the vital and crucial elements that must accompany the development of teacher education programs, however this often forgotten. This certainly has an impact on the quality of learning both for teachers and students.

In general, teachers have difficulty determining the assessment techn

class-based assessment that can provide an overview of student progress over time during the learning process is portfolio assessment. Johnson and Johnson (2002: 103) define, a portfolio is an organized collection of evidence accumulated over time students' or group's academic progress, achievements, skills, and attitudes. It consists of work samples and written rationality connecting separate items into more complete and holistic views of the student's achievement or progress toward learning goals.

From the quote above, it is illustrated that the portfolio is a collection of student jobs. Portfolios display the best student work or student work that is the most meaningful as a result of their activities in the class. The portfolio can display the previous work and the latest work so that it illustrates student learning progress. One teacher assessment model assesses student work not only in terms of product but also in the process (O'Malley and Pierce, 1996: 14).

The portfolio assessment can focus on the process and results of the assessment in the learning process. According to Balitbang Depdiknas (2003: 40), portfolio assessment can: (a) be described as a continuous development of students to show students' self-changes from the beginning to the end of a certain period, (b)

provide opportunities for students and teachers to examine the suitability of work with goals learning, (c) able to reflect important changes in the process of students' intellectual abilities over time.

In this regard, this research is also based on the opinion of Piaget and Lawrence Kohlberg about moral development. Piaget gives the meaning that the attitude of behavior demanded is displayed because it is adopted, believed and carried out by the person or community concerned (Fauziah, 1999: 33). Likewise with Kolberg in his book *Stages of Moral Development*, saying that moral judgments and deeds are essentially rational. Moral decisions are not a matter of feeling or value, but always contain a cognitive interpretation of the state of moral dilemma, and are actively constructive cognitive, towards the points of view of each participant and group involved, while considering all kinds of demands, rights, obligations, and and involvement of each person / group towards the good and fair.

RESEARCH METHODS

This research is categorized as quasi-experimental research. This study wanted to see how the students' performance in learning Civic education using portfolio assessment, through experimental designs using one group pretest-posttest design. The population in this study were fourth grade students of GMIM Elementary School Sonder Kab. North Sulawesi Minahasa academic year 2021/2018 which consists of two classes, each of which consists of 20 students. While the research sample is class IVB students, amounting to 20 students.

Measuring instruments used are: observation sheet observation of student activities, used to observe student activities during learning activities with portfolio assessment conducted by two observers using the percentage formula. Test of learning outcomes, to reveal the students' maximum performance in mastering materials or materials during the learning process with portfolio assessment. Test is a tool or procedure that is

used to know or measure something in the atmosphere, by means and rules that have been determined (Nasution, 2002: 53).

Both of these instruments were developed from the theories used and have measured the level of reliability and validity. By using the percentage of agreement formula from Emmer and Millett (1970) in Borich (1994: 385), it is obtained that the average reliability of the observation instruments of student activities is 94.60% or has a reliability coefficient of 0.94, so it is said to be reliable. Data collection in this study used two tests, namely (1) the initial test (before the experiment) and (2) the test results of learning civic education (after the experiment). Initial tests and final tests (learning outcomes) of civic education are the same. This test is compiled and developed by the researcher based on the counselor's advice which refers to the Competency Standards, Basic Competencies and Learning Indicators.

To make it easier for researchers to obtain the data to be analyzed so that it is clearer, in detail the data needed in this study is collected in three ways, namely: (a) giving tests to students, (b) making observations, (c) asking written answers to students for the questions given to them. The data analysis technique used is the t-test. The statistical analysis was carried out using computers through the SPSS program. The hypothesis testing criteria are: accept H_0 , if $\mu_1 = \mu_2$, (not different) and accept H_1 , if $\mu_1 \neq \mu_2$, (different).

RESULTS AND DISCUSSION

Observation of student activities is carried out 3 times, which is at the end of each meeting in one lesson plan. Observations were carried out for two lesson hours (2x35 minutes) by observing student behavior / activities every two minutes. From the results of the analysis of the percentage of student activities during learning using portfolio assessment, the average percentage of student activity was, aspects of asking questions about the material / concepts that were not understood, namely an average of 10.87%, discussing and working together

10.43%, aspects paying attention to the presentation of friends 10.13% , listening to the teacher's explanation of 9.80%, expressing ideas at 9.77%, concluding the results of his work / learning material 9.60%, wanting to report the results of the group's work without being appointed 7.53% then willing to answer friends / teacher's questions 7.37%, and the lowest is writing which is not relevant to KBM at 5.80%. In addition, observations of student activities carried out in this study found that, overall the results of observations of student activities in learning with portfolio assessment in each RPP experienced an increase in activities relating to performance / performance.

To test the differences in learning outcomes, the hypothesis proposed is, "There are differences in student performance/achievement in civic education before and after learning with portfolio assessment. The hypothesis is carried out by the t test, using the SPSS 13.0 program, the results of the analysis can be described as follows:

RPP 01 with $n = 20$ obtained the mean before = 2.30, and the mean after = 7.75. By using $df = n-1$ and consulted on the value table "t", both at the 5% significance level and 1% significance level, it turns out that with $df = 19$, the critical price t is obtained at the 5% t_{table} of 2.09 and the t criticism of t_{table} 1% significance level is obtained 2.80. By comparing the magnitude of t that we get in RPP 01 that is $t_h = 30.06$, and the magnitude of t in the table of value t (t_t . 5% = 2.09 and t_t . 1% = 2.70) then it can be seen that $t_{count} > t_{table}$ 5%, 1% $t_h = 30.06 > 2.09$ 5% and $t_h = 30.06 > 2.80$ 1%. Because t_{count} is greater than t_t ($t_h > t_t$), the null hypothesis (H_0) proposed is rejected and the Alternative Hypothesis (H_a) is accepted.

RPP 02 with $n = 20$ obtained the mean before = 4.1, and the mean after = 8.45. By using $df = n-1$ and consulted on the value table "t", both at the 5% significance level and 1% significance level, it turns out that with $df = 19$, the critical price t is obtained at the 5% t_{table} of 2.09 and the t criticism of t_{table} 1% significance level is obtained 2.80. Furthermore, compared

to the magnitude of t we obtained in RPP 02, namely $t_h = 21.07$, and the magnitude of t in the table of value t (t_t . 5% = 2.09 and t_t . 1% = 2.80), it can be seen that $t_{count} > t_{table}$ 5%, 1% $t_h = 21.07 > 2.09$ 5% and $t_h = 21.07 > 2.80$ 1%. Because t_{count} is greater than t_t ($t_h > t_t$), the null hypothesis (H_0) proposed is rejected and the Alternative Hypothesis (H_a) is accepted.

RPP 03 with $n = 20$ obtained the mean before = 4.55, and the mean after = 0.05. By using $df = n-1$ and consulted on the value table "t", both at the 5% significance level and 1% significance level, it turns out that with $df = 19$, the critical price t is obtained at the 5% t_{table} of 2.09 and the t criticism of t_{table} 1% significance level is obtained 2.80. Furthermore, compared to the magnitude of t obtained in RPP 03, namely $t_h = 22.65$, and the magnitude of t in the table of value t (t_t . 5% = 2.09 and t_t . 1% = 2.80), it can be seen that $t_{count} > t_{table}$ 5%, 1% ie $t_h = 22.65 > 2.09$ 5% and $t_h = 22.65 > 2.80$ 1%. Because t_{count} is greater than t_t ($t_h > t_t$), the null hypothesis (H_0) proposed is rejected and the Alternative Hypothesis (H_a) is accepted.

Based on the significance test analysis with the t test on RPP 01, RPP 02 and RPP 03 shows that overall $t_{count} > t_{table}$ 5%, 1% and has a very strong correlation between before and after learning with portfolio assessment. This means that the differences in student performance/achievement in civic education before and after learning with portfolio assessment are significant differences or convincing differences (significant).

Student Activities

Based on the description of the results of observations of student activities during the learning activities with portfolio assessment, it can be concluded that the activities carried out by students after learning with portfolio assessment have increased. From the three observations of student activities carried out at each end of learning in this study, it was found that, overall the results of observations of student activities in Civics learning with portfolio assessment at the end of each lesson

plan had increased student activity with regard to performance. Observation of student activities at the end of RPP 01 shows the percentage of student activity at 74.10%, then observations at the end of RPP 02 at 81.0%, and at the end of learning with portfolio assessment RPP 03 to 88.80%.

From the data from the analysis of the percentage of student activities during learning using portfolio assessment, it was found that the average percentage of student activity was the aspect of asking questions about the material / concepts that were not understood, that is, an average of 10.87%, discussing and working together 10.43%, aspects of paying attention presentation of his friend 10.13%, listening to the teacher's explanation of 9.80%, wanting to express ideas at 9.77%, concluding the results of his work / learning material 9.60%, willing to report the results of group work without being appointed 7.53% then willing to answer friend / teacher questions 7.37%, and who the lowest is writing that is not relevant to KBM at 5.80%. In addition, it was also found that the most prominent aspects after learning with portfolio assessment were aspects of expressing ideas at 15.2%, and willing to ask questions about material / concepts that were not understood at 14.3%.

Learning Outcomes Test

Based on the analysis of data description obtained the average value of student learning outcomes before and after learning civic education with portfolio assessment. The average student learning outcomes in RPP 01 before learning takes place is 2.30, and after learning is 7.75, so the average value of student learning outcomes after learning increases by 5.45 points or becomes 77.5%. Whereas in RPP 02 the average student learning outcomes before learning took place were 4.1 and after learning 8.45, or increased by 4.35 points or increased to 84.5%. The average student learning outcomes in RPP 03 before learning is obtained by an average of 4.55 and after learning 9.05, there is a selection of 4.5 points.

Thus student learning outcomes after learning with portfolio assessment increased to 90.5%.

The hypothesis is t-test, using the SPSS 13.0 program, found that: in RPP 01 with $n = 20$ obtained the mean before = 2.30, and the mean after = 7.75. By using $df = n-1$ and consulted on the value table "t", both at the 5% significance level and 1% significance level, it turns out that with $df = 19$, the critical price t is obtained at the 5% t_{table} of 2.09 and the t criticism of t_{table} 1% significance level is obtained 2.80. By comparing the magnitude of t that we get in RPP 01 that is $t_h = 30.06$, and the magnitude of t in the table of value t (t_t . 5% = 2.09 and t_t . 1% = 2.70) then it can be seen that $t_{count} > t_{table}$ 5%, 1% $t_h = 30.06 > 2.09$ 5% and $t_h = 30.06 > 2.80$ 1%.

The results of the analysis on RPP 02 with $n = 20$ obtained the mean before = 4.1, and the mean after = 8.45. By using $df = n-1$ and consulted on the value table "t", both at the 5% significance level and 1% significance level, it turns out that with $df = 19$, the critical price t is obtained at the 5% t_{table} of 2.09 and the t criticism of t_{table} 1% significance level is obtained 2.80. Furthermore, compared to the magnitude of t we obtained in RPP 02, namely $t_h = 21.07$, and the magnitude of t in the table of value t (t_t . 5% = 2.09 and t_t . 1% = 2.80), it can be seen that $t_{count} > t_{table}$ 5%, 1% $t_h = 21.07 > 2.09$ 5% and $t_h = 21.07 > 2.80$ 1%.

RPP 03 with $n = 20$ obtained the mean before = 4.55, and the mean after = 9.05. By using $df = n-1$ and consulted on the value table "t", both at the 5% significance level and 1% significance level, it turns out that with $df = 19$, the critical price t is obtained at the 5% t_{table} of 2.09 and the t criticism of t_{table} 1% significance level is obtained 2.80. Furthermore, compared to the magnitude of t obtained in RPP 03, namely $t_h = 22.65$, and the magnitude of t in the table of value t (t_t . 5% = 2.09 and t_t . 1% = 2.80), it can be seen that $t_{count} > t_{table}$ 5%, 1% ie $t_h = 22.65 > 2.09$ 5% and $t_h = 22.65 > 2.80$ 1%.

From the three analysis of differences in significance analysis, it was found that overall t_{count} was t_{table} ($t_h > t_t$), then the Nil (H_0)

hypothesis proposed was rejected and the Alternative Hypothesis (H_a) was accepted. This means that there are differences in student performance/achievements in civic education before and after learning with portfolio assessment. Differences in student performance before and after taking civic education with portfolio assessment, are significant differences or convincing differences (significant). Thus based on the results of the study, it can be conclusively said that the portfolio assessment on the learning of civic education has shown an increase in performance (learning outcomes) of fourth grade students at Elementary School GMIM Sonder.

CONCLUSION

The results of observations of student activities show an increase in activity / performance after participating in learning with portfolio assessment. Observation of student activities in RPP 01 obtained an activity percentage of 74%, in RPP 02 the percentage of activity was 81% and at the end of learning the portfolio assessment in RPP 03 increased to 88.80%.

The most dominant student activities are willing to express ideas at 15.2%, and want to ask questions about material / concepts that are not yet understood at 14.3%.

Student learning outcomes after learning with portfolio assessment have increased, in RPP 01 student learning outcomes amounted to 77.5%, in RPP 02 it increased to 8.45% and at the end of lesson plans RPP 03 student learning outcomes became 90.5%.

The results of inferential analysis indicate a difference in student learning outcomes before and after learning using portfolio assessment. The results of different test analysis of learning outcomes test also show significant differences, so that it can conclusively be said that portfolio assessment in learning civic education can improve student performance/learning outcomes.

Based on the results of the study, it can be conclusively said that the portfolio

assessment on the learning of civic education has shown an increase in performance (learning outcomes) of students in Elementary School GMIM Sonder.

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Implementation of Android-Based Educational Games to Improve Student Learning Outcomes

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Abstract

This research has background with the learning outcome especially in junior high school. The aims of this research is to determine the improvement of learning outcomes of students who use an Android-based educational game learning media with students using the conventional method. This research method used Quasi Experimental with Pretest design - Posttest Control Group Design. The population in this study were all class VII of SMPN Bantarkalong 2, while the sample in this study were students of class VII B and VII C of SMPN Bantarkalong

2, as many as 31 students per class. Techniques of data collection were carried out literature studies and other data collection techniques were pre-test, treatment, and post-test given to the experimental class and the control class. The instruments used in this study were tests, observation sheets, student response questionnaire sheets and student learning outcomes documents. As the results of the research is the use of Android-based educational games can significantly improve student learning outcomes compared to students who use conventional methods. In conclusion there is a better increase in learning outcomes of students who use android-based educational games than students who use conventional methods. As recommendation from this research that educational games in learning is can be used for investigation of other variables like level of understanding, critical thinking, etc.

Keywords: *educational games, android, student learning outcomes*

INTRODUCTION

Technological progress is something that cannot be avoided in this life, because

technological progress will go according to the advancement of science. Many aspects that get the influence of technological advances including aspects of education, which is very important to consider in human life.

Science learning includes all material related to natural objects and their problems. The scope of science is living things, their energy and changes, the earth and the universe and the material processes and properties. Application of science education in secondary schools so students understand and master the concept of nature.

Submission of material with conventional methods tends to make students difficult to absorb the material conveyed because in the learning process students are not encouraged to develop thinking skills, and students are directed to the ability to memorize information and remember it without understanding the information. When things like this happen, students will find it difficult to accept further material. From the results of daily tests, UTS, UAS and assignments given by the teacher to class VII Bantarkalong 2 Public Middle School, it was found that the average value of each test was 45.5 while the KKM set by the school for science subjects was 75, so that to achieve the KKM score students must take remedial. Based on observations made in science learning in the school, it was found that one of the causes of low student learning outcomes was because students had difficulty absorbing the material conveyed by the teacher, how to convey material that was still conventional so that the teaching and learning situation was not attractive to students.

To create a pleasant, active, conducive atmosphere, learning can run well and in accordance with the learning objectives to be achieved, so the teacher or educator needs to use a variety of models or media to support the learning process. Quinn (2005: 11) states that learning can, and should, be hard fun, the statement shows that learning can and can be very enjoyable. Games are one of the things that

many students like. Rusman (2012: 236) added that an educational game generally has elements of purpose, rules, competence, challenges, imagination, and security.

Android-based educational game was chosen because Android is in great demand by many people and most people cannot be released from their Android cellphones, and to change the perception of games that tend to be considered as entertainment media rather than learning.

Based on the background of the problem raised, several problems can be found, including:

1. Is there an increase in student learning outcomes by using an Android-based educational learning media game?
2. Is the increase in student learning outcomes using Android-based educational game learning media better than conventional classes (learning videos)?

In general, this study aims to implement an Android-based educational game to improve student learning outcomes, also specifically aims to find out:

1. Increased student learning outcomes by using an Android-based educational learning media game.
2. Increased learning outcomes of students who use Android-based educational game learning media better than conventional classes (learning videos).

RESEARCH METHODOLOGY

- a. The research method used in this study is Quasi Experimental, with a quantitative approach. According to Sugiyono (2012: 77) quasi-experiments are used because the control group cannot function fully to control external variables that affect the conduct of experiments. This quasi-experimental study aims to reveal a causal

relationship by involving a control group in addition to the experimental group. This study was designed using Pretest-Posttest Control Group Design, in this group there were experimental groups and control groups, where the group was taken randomly.

- b. The population in this study were all seventh grade students of Bantarkalong Junior High School 2 in the academic year 2017/2018. Samples in the study were taken two classes namely class VII (B) and class VII (C) which were randomly selected from the entire population. This research was conducted at Bantarkalong 2 Public Middle School which was addressed in Wangunsari, Bantarkalong, Tasikmalaya, West Java.
- c. The right instrument must meet two conditions, namely valid and reliable. Here are the instruments used:
 - d. Test, In this study consisted of the initial test (pre-test), which is a test carried out before the treatment and the final test (post-test), which is a test conducted after treatment.
 - e. This observation sheet contains the activities of students and teachers during the learning process with direct observation by the observer.
 - f. Questionnaire student response is a technique of data collection conducted by giving a set of questions or written statements to the respondent to answer. And it is an efficient data collection technique if the researcher knows for sure the variables to be measured and knows what is expected from the respondents (Sugiyono, 2012: 137). The questionnaire used in this study aims to determine students' responses to the application of Android-based educational games. In this questionnaire there are statements that are chosen by respondents using the Likert scale after carrying out learning using an Android-based educational game.

- g. Student learning document documents, used to view student learning outcomes in science subjects.

Data collection techniques that will be used in this study are:

- a. Literature study is a process of gathering references that are relevant to the formulation of problems, the study of literature can be sourced from books, digital books, media, experts, or from the results of other people's research aimed at drawing up the theoretical basis used in conducting research.
- b. Other data collection techniques are carried out in 3 stages, namely:
 - 1) Pre-test is conducted before learning.
 - 2) Treatment is carried out on the experimental class and the control class, in the experimental class given treatment using educational game media. While in the control class, treatment was given using conventional methods.
 - 3) Post-tests are conducted after the learning has been completed.

After obtaining the data, the data analysis is carried out intended to find answers to the research statement or about the problems that have been previously formulated.

RESULT AND DISCUSS

In this chapter, the results of the research on the application of android-based educational games to improve student learning outcomes in class VII science subjects in Bantarkalong Public Middle School 2 with the method used are quasi-experiments involving the experimental class and the control class. In the experimental class given the treatment of android-based educational game learning while the control class was given conventional learning treatments (learning videos). Then the two classes will be tested with an instrument in

the form of a multiple choice test that has been tested for validity, reliability, differentiation and degree of difficulty. Test data from the two classes will be tested by a normality test, if the distribution of data from the experimental class and the control class is normally distributed it will be continued on the homogeneity test. If the results of the homogeneity test show that the two data are homogeneous then it will be continued with the t test and then conclude whether the hypothesis is accepted or rejected.

1. Pretest and Posttest Scores of Experimental Classes and Control Classes

The research produced score data on the results of the pretest, and the posttest increase in student learning outcomes, both in the control class and the experimental class. Analysis was carried out on student learning outcomes both before and after the learning process with the use of an Android- based educational game in the experimental and learning classes using conventional methods (learning videos) in the control class, so that information such as that shown in table 4.1 below:

**Table 4.1
Research Data**

Description	Control Class		Experiment Class	
	Pretest	Posttest	Pretest	Posttest
Number of Student	31	31	31	31
Ideal Score	100	100	100	100
Biggest Value	53	77	57	93
Smallest Value	30	53	33	70
Average	44.39	68.61	49.55	85.61
Standard of Deviation	7.63	7.41	6.35	5.88

a.

a. Pre-Test Results, Post-Tests and Improved

Control Class Learning Outcomes

The pre-test was carried out by the control class and the experimental class. The pre-test consisted of 30 multiple choice questions that students had to do for 30 minutes. Students work individually and after

completion are collected for examination. Analysis of the initial test data (pre-test) obtained from the control class and experimental class aims to determine the increase in initial student learning outcomes before being given treatment or learning. Next to find out the improvement in learning outcomes is done by calculating the normalized gain processing, the following

**Table 4.2
Control Class Data**

No	Name	Pre-test	Post-test	Gain Score	<g>
1	K-1	50	53	3.00	0.06
2	K-2	47	73	26.00	0.49
3	K-3	50	67	17.00	0.34
4	K-4	50	57	7.00	0.14
5	K-5	50	57	7.00	0.14
6	K-6	30	73	43.00	0.61
7	K-7	50	63	13.00	0.26
8	K-8	30	70	40.00	0.57
9	K-9	50	53	3.00	0.06
10	K-10	30	70	40.00	0.57
11	K-11	40	63	23.00	0.38
12	K-12	33	67	34.00	0.51
13	K-13	47	77	30.00	0.57

14	K-14	50	77	27.00	0.54
15	K-15	53	57	4.00	0.09
16	K-16	43	77	34.00	0.60
17	K-17	33	70	37.00	0.55
18	K-18	53	73	20.00	0.43
19	K-19	50	70	20.00	0.40
20	K-20	43	77	34.00	0.60
21	K-21	50	73	23.00	0.46
22	K-22	43	73	30.00	0.53
23	K-23	40	70	30.00	0.50
24	K-24	33	63	30.00	0.45
25	K-25	40	70	30.00	0.50
26	K-26	53	67	14.00	0.30
27	K-27	43	63	20.00	0.35
28	K-28	43	77	34.00	0.60
29	K-29	53	73	20.00	0.43
30	K-30	43	77	34.00	0.60
31	K-31	53	77	24.00	0.51
Amount		1,376	2,127	751.00	13.11
Average		44.39	68.61	24.23	0.42

(learning videos) is 44.39 and after using conventional learning models (learning videos) is 68.61 of the data it can be concluded that the average value of learning outcomes of control class students has increased by 24.23.

a. Pre-Test Results, Post-Tests and Improved Experimental Class Learning Outcomes

From the results of the study can be obtained score data from the pre-test, post-test and improvement of student learning outcomes in the experimental class. after an analysis of student learning outcomes both before and after the learning process is done by using an Android-based educational game, then to find out the improvement in learning outcomes can be done by calculating the normalized gain value. From the results of the normalized gain processing, the following information is obtained:

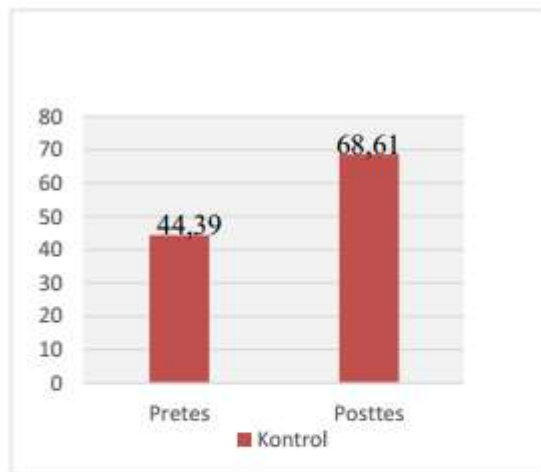


Figure 4.1
Comparison Chart of Pretest and Posttest Value of the Control Class

Viewed from Figure 4.1 shows that the average value of learning outcomes of control class students in science lessons with solar material before using conventional learning models

Table 4.3
Experiment Class Data

No	Name	Pre-test	Post-test	Gain Score	<g>
1	K-1	47	83	36.00	0.68
2	K-2	57	83	26.00	0.60
3	K-3	47	93	46.00	0.87
4	K-4	53	80	27.00	0.57
5	K-5	53	83	30.00	0.64
6	K-6	50	93	43.00	0.86
7	K-7	53	87	34.00	0.72
8	K-8	53	73	20.00	0.43
9	K-9	57	87	30.00	0.70
10	K-10	33	83	50.00	0.75
11	K-11	47	93	46.00	0.87
12	K-12	47	80	33.00	0.62
13	K-13	53	83	30.00	0.64
14	K-14	43	83	40.00	0.70
15	K-15	53	93	40.00	0.85
16	K-16	50	87	37.00	0.74
17	K-17	33	87	54.00	0.81
18	K-18	53	93	40.00	0.85
19	K-19	53	93	40.00	0.85
20	K-20	57	93	36.00	0.84
21	K-21	53	70	17.00	0.36
22	K-22	43	87	44.00	0.77
23	K-23	57	80	23.00	0.53
24	K-24	50	87	37.00	0.74
25	K-25	57	93	36.00	0.84

26	K-26	50	87	37.00	0.74
27	K-27	50	83	33.00	0.66
28	K-28	47	83	36.00	0.68
29	K-29	50	87	37.00	0.74
30	K-30	50	87	37.00	0.74
31	K-31	37	80	43.00	0.68
Amount		1,536	2,654	1,118.00	22.07
Average		49.55	85.61	36.06	0.71



Figure 4.2
Comparison Diagram of Experimental Pre-test and Experimental Post-Test Values

Viewed from Figure 4.2 shows that the average value of learning outcomes of experimental class students in science lessons with solar material before learning using an Android-based educational game is 49.55 and after learning using an Android-based educational game is 85.61 from the data it can be concluded that the average value of student learning outcomes in the experimental class has increased by 36.06.

a. Comparison of Increased Learning Outcomes of Students in Experimental Classes and Control Classes Summary of statistical data enhancing student learning outcomes in cognitive aspects, namely knowledge (C1), and understanding (C2) regarding the subject matter of the following:

Table 4.4
Comparison of Increased Learning Outcomes of Control Class Students and Experiment Class

Class	N	Average				Standard of Deviasi
		Pre-test	Post-test	Gain Score	Gain normalized	
Control	31	44,39	68,61	24,23	0,42	0,17
Experiment	31	49,55	85,61	36,06	0,71	0,12

From table 4.4 it can be seen that with the number of students in the experimental class 31 people and the control class 31 people. Comparison of the average score of post-test improvement in learning outcomes in cognitive aspects, namely knowledge (C1), and understanding (C2) regarding the subject matter between the control class and the experimental class was 68.61: 85.61, so the average ratio was 17,00. The gain score comparison between the control class and the experimental class is 24.23: 36.06. While the comparison of normalized gain between the control classes with the experimental class is 0.42: 0.71 and and the standard deviation of increasing student learning outcomes in cognitive aspects namely

knowledge (C1) and understanding (C2) regarding the material of the control class is 0.17 and class experiment is 0.12.

Improving student learning outcomes was measured by 30 multiple choice tests. Data comparison of the average pre-test post-test and normalized gain values between experiment class and control class are shown in graph 4.3

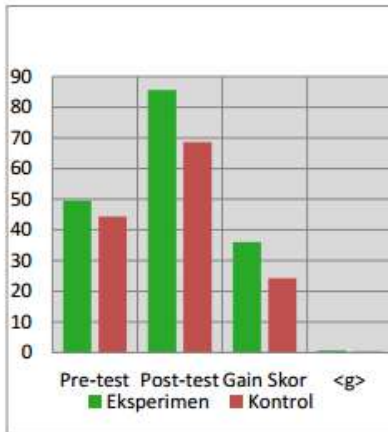


Figure 4.3
Comparison of Pre-Test, Post-Test and Gain Normalized Inter-Class Control and Experimental Classes

Based on figure 4.3, it can be obtained that the normalized gain value for the control class is 0.42 with the medium category. and for the average gain value normalized by the experimental class is 0.71 with a high category of this value comparison shows that the use of an android-based educational game can improve student learning outcomes in science subjects with material based on the topic compared to conventional learning (learning videos).

1. Data Processing

After the data needed has been collected, the data analysis is carried out to find out the results of the research by looking at whether the proposed hypothesis is accepted or rejected. The results of the research conducted are as follows:

a. Normality test

Normality Initial Test (Pretest)

Data normality test is used to find out what kind of statistics are used for subsequent data processing. In this test, researchers used the Lilliefors test with a significant level (α) of

5% whose results can be seen below: Testing Hypothesis:

Ho: Distribution of data is normally distributed

Ha: Data distribution is not normally distributed

Decision Making Criteria:

If $L_{maks} < L_{tabel}$, the data is normally distributed

If $L_{maks} > L_{tabel}$ then the data is not normally distributed

After calculation by Lilliefors test, the following results are obtained:

Table 4.5
Normality Test Results Initial Test (Pretest)

Group	L_{maks}	L_{tabel}	Description
Experiment	0,132	0,159	Data is normally distributed
Control	0,130	0,159	Data is normally distributed

From the results of the calculation of the data normality test the results of the pretest class using learning using an android-based educational game were obtained $L_{maks} = 0,132$ lower than $L_{tabel} = 0,159$, then the distribution of the data is normally distributed, while the data from the pretest class using conventional learning models are obtained $L_{maks} = 0,130$ smaller than $L_{tabel} = 0,159$, then the distribution of the data is normally distributed.

1) Normality Test Final Test (Posttest)

Data normality test is used to find out what kind of statistics are used for subsequent data processing. In this test, researchers

used the Lilliefors test with a significant level (α) of 5% whose results can be seen below:

Hipotesis Pengujian:

- a) Ho: Distribution of data is normally distributed
- b) Ha: Data distribution is not normally distributed.

Decision Making Criteria:

If $L_{maks} < L_{tabel}$, the data is normally distributed

If $L_{maks} > L_{tabel}$ then the data is not normally distributed

After calculation by Lilliefors test, the following results are obtained:

Table 4.6
Normality Test Results Final Test (Posttest)

Group	L_{maks}	L_{tabel}	Keterangan
Experiment	0,148	0,159	Data is normally distributed
Control	0,129	0,159	Data berdistribusi normal

From the results of the calculation of the normality test results of the posttest class that uses learning using an android-based educational game obtained $L_{maks} = 0,148$ smaller than $L_{tabel} = 0,159$, then the distribution of the data is normally distributed, while the results of the posttest class data using conventional learning models are obtained $L_{maks} = 0,129$ less than $L_{tabel} = 0,159$, then the distribution of the data is normally distributed. Because both data are normally distributed, the next calculation uses the parametric statistical test, namely the Homogeneity Test of Two Variances.

b. Homogeneity Test of Two Variances

The test results of the homogeneity of two variants can be seen in table 4.7 and table 4.8 below:

Table 4.7
Pretest Homogeneity Test Results

Class	Amount of data	Average	Standard deviation	F_{hitung}	F_{tabel}
Experiment	31	49,55	6,35	1,44	2,39
Control	31	44,39	7,63		
Description				Homogen	

1) Formulate a Hypothesis

Ho: Both homogeneous variances ($v1 = v2$)

Ha: The two variances are not homogeneous ($v1 \neq v2$)

2) Decision Making Criteria

If $F_{count} < F_{table}$ then Ho be accepted

If $F_{count} \geq F_{table}$ then Ha be accepted

From the results of the calculation of the two variance homogeneity test obtained $F_{count} = 1,44 < F_{table} = 2,39$ so the variance of the two groups is homogeneous

Tabel 4.8
Posttest Homogeneity Test Results

Class	Amount of data	Average	Standard Deviation	F_{count}	F_{tabel}
Experiment	31	85,461	5,88	1,59	2,39
Control	31	68,61	7,41		
Keterangan				Homogen	

1) Formulate a Hypothesis

Ho: Both homogeneous variances ($v1 = v2$)

Ha: The two variances are not homogeneous ($v1 \neq v2$)

2) Decision Making Criteria

If $F_{count} < F_{table}$ then Ho be accepted

If $F_{count} \geq F_{table}$ then Ha be accepted

From the results of the calculation of the two variance homogeneity test obtained $F_{count} = 1,59 < F_{table} = 2,39$ so that the variance of the two groups is homogeneous, then it is followed by the test (independent sample test)

c. Hypothesis testing

Analysis of data from the comparison of initial abilities (Pre-test) of the two classes did not differ between the control class and the experimental class because there was no treatment between the control class and the experimental class. while the data analysis results from a comparison of the final ability (Post-test) of the two classes in this study using the t test (independent sample t test) because the two data are homogeneous. In the t test with a significance level of 5%, the results can be seen below:

- 1) Formulate the null hypothesis and the alternative hypothesis:

Ho	: There is no better improvement in learning outcomes of students who use android-based educational games than students who use conventional methods.
Ha	: There is an increase in learning outcomes of students who use android-based educational games compared to students who use conventional methods.

- 1) Criteria for testing hypotheses:

Ho accepted if $-t_{table} \leq t_{count} \leq t_{table}$

Because of value $t_{count} = 6,895$ dan $t_{table} = 2,0003$ It can be concluded that the hypothesis Ho is rejected and the hypothesis Ha is accepted, namely there is a better increase in learning outcomes of students who use Android-based educational games than students who use conventional methods. For the sample t test data can be seen in table 4.9 below:

Tabel 4.9
T Test Results Posttest Control and Experiment

Data Yang Diuji	Experiment	Control
n	31	31
\bar{x}	85.61	68.61
s	5.88	7.41
s^2	34.58	54.58
r	0.02	
v	60	
tcount	6.895	
t 0.95(60)	2.0003	

Description :

- n = Number of Experimental Classes and Control Class Subjects
- \bar{x} = Average Classroom Experiment Value and control class
- s = Standard Deviation
- s^2 = Combined Variant

2. Questionnaire For Student Response to Learning That Uses An Android-Based Educational Learning Media Game

After doing the learning using learning media based on Android educational games, it turns out that it can increase students' learning interest and student interest when learning using learning media based on Android-based educational games. Interest is one of the internal factors that arise from students in something, and becomes very important in an interest if interest has arisen in students. According to Slameto (2013: 180) interest is a feeling of being more like and feeling interested in something or activity, without being told. Interest is the tendency of someone to pay attention to and remember some activities or activities carried out by someone, this arises because of the stimulus or response to carry out these activities.

This questionnaire was given to the experimental class who received treatment on learning media based on Android education games and got the results that most students of Bantarkalong Middle School 2 class VII-C,

amounting to 31 people, could improve student learning outcomes, especially in science subjects with a sub-subject the results of the average questionnaire, namely 82% included in the questionnaire category are very feasible / interested.

Table 4.10
Recapitulation of Questionnaires

Class	Average	Eligibility Criteria
Experiment	82%	Very Worthy / Interested

DISCUSSION

1. Increasing Student Learning Outcomes by Using Learning Media for Android-Based Educational Games

Learning media are media that carry messages or information that aim to facilitate the learning process and can channel information from the teacher to students, so that it can stimulate students' thoughts, feelings, concerns and interests. While the android-based learning media is learning media that has been packed into a cellphone to facilitate student learning, the media used in this study are educational games. Educational game is a game that is used to provide teaching or increase knowledge to users through a media that is unique, interesting, challenging, and gives the effect of pleasure for its users which aims to increase the expected learning motivation, namely learning goals that can be seen from better learning outcomes (Rusman, 2012: 236).

Apart from the above understanding of learning media has a very important factor in the success of learning, as stated by Hamalik (1986) in Azhar (2017) that the use of learning media in the learning process can generate new desires and interests, generate motivation and stimulation learning activities, and even bring psychological influences to students.

In this study there was an increase in student learning outcomes using an Android-based educational game learning media. This

can be seen from the results of the experimental class pretest and posttest because the experimental class is a class that uses Android-based educational game learning media. At the time of the initial test (pretest) an average of 49.55 was obtained while at the end of the test (posttest) an average of 85.61 was obtained so that it could be seen under the results of the experimental class pretest and posttest after receiving treatment with android-based educational game learning media there was an increase in student learning outcomes

36.06. As in the picture below, it can be seen the comparison of the pretest and posttest values of the experimental class.

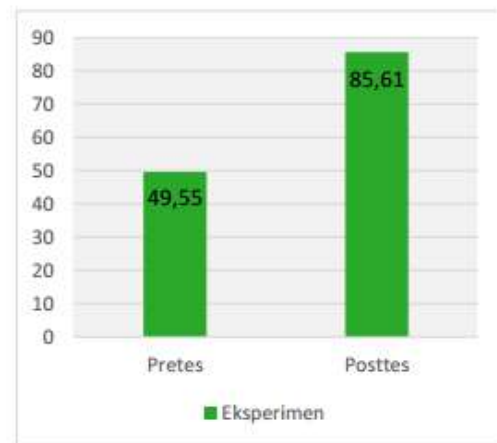


Figure 4.4
Comparison of Pre-Test Values and Experimental Class Post-Tests

2. Improving Student Learning Outcomes Using Android-Based Educational Games Are Better Than Conventional Classes

Learning is an activity carried out by someone so that behavior changes get better, which involves all things both attitudes, skills, and skills. According to Abdillah (in Aunurrahman, 2012: 35) suggests that learning is a conscious effort carried out by individuals in behavioral change through practice and experience

involving aspects of cognitive, affective, and psychomotor aspects to obtain certain goals.

Apart from the definition of learning itself there are also learning theories namely behaviorism learning theory, cognitive learning theory, humanism learning theory, cybernetic learning theory, and constructivism learning theory. The background learning theory in this study related to the use of instructional media is behavioristic learning theory, where stimuli from outside / the environment affect the process of acquiring knowledge.

Learning outcomes are the most important part of learning. Sudjana (2010: 22) states that "Learning outcomes are abilities possessed by students after he receives his learning experience". Whereas According to Dimiyati and Mudjiono (2006: 3-4) learning outcomes are the result of an interaction between learning and teaching. From the teacher's side, teaching action ends with the process of evaluating learning outcomes, while in terms of students the learning outcomes are the end of teaching from the peak of the learning process.

Learning outcomes can be seen through evaluation activities that aim to obtain evidence data that will show the level of students' ability to achieve learning goals.

In this study there was a better improvement between the learning outcomes of students who used an Android-based educational game learning media from conventional classes. This can be seen from the results of the pretest and posttest between classes using android-based educational game media (experimental class) with classes that use learning conventional (control class).

From the pretest results that have been done, it can be seen that the average value in the control class is 44.39, while in the experimental class is 49.55. both data have a mean that is less than the specified KKM, for KKM determined in science subjects in class VII is 75. Whereas from the results of the

Posttest it can be seen that the average in the control class is 68.61 and the experimental class is 85.61, for gain normalized experimental class is 0.71 with a high category, while the normalized gain of the control class is 0.42 with a low category. And increasing student learning outcomes for the experimental class as much as 36.06, while for the control class as much as 24.23. it can be concluded that an increase in student learning outcomes using an Android-based educational game learning media is better than conventional classes. In addition, from the test results of hypothesis $t_{count} = 6.895$ and $t_{table} = 2,0003$, because $t_{count} > t_{table}$ it can be stated that H_0 is rejected so that it can be stated that there is a better increase in learning outcomes of students who use android-based educational games with students using the method conventional. To be more clear can be seen in the picture below which shows that the class that uses Android-based educational games is more increased compared to the class that uses conventional methods.

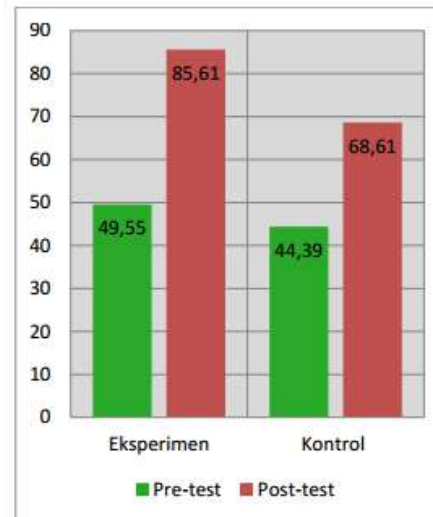


Figure 4.5
Value Increase Between Experimental Classes and Control Classes

Judging from students' responses to learning media by using an Android-based educational game, student questionnaire

analysis showed 82% with very decent criteria. In accordance with the students' response, Arsyad (2011: 21) stated that learning could be more interesting. The media can be associated as a catcher and keep students awake and attentive.

Students at Bantarkalong 2 Public Middle School were very enthusiastic when learning using the media, and students were interested in following the learners so that there were more significant student learning outcomes.

CONCLUSION

Based on the data and analysis of the results of the research that has been carried out about learning using the application of an Android-based educational game to improve student learning outcomes in science subjects with subject matter, it can be concluded that:

1. The average pre-test results of the experimental class are 49.55 and the post-test average score is 85.61. While the average pre-test results of the control class were 44.39 and the average post-test score was 68.61. There appears to be an increase in the experimental class of 36.06 and the control class of 24.23.
2. Increased learning outcomes of students who use android-based educational game media better than conventional classes (learning videos), seen from the average normalized gain value for the experimental class is 0.71 with a high category while the control class is 0.42 with a moderate category. And from the results of the hypothesis that $t_{count} = 6.895$ and $t_{table} = 2,0003$, because $t_{count} > t_{table}$, there is significantly a better increase in learning outcomes for students who use android-based educational games than students who use conventional methods (learning videos).

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Improving Creative Attitude of Students at Elementary Teacher Education Department of UNISSULA Semarang by Developing Teaching Materials for Mathematics Learning Practicum

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Abstract

Subject of Mathematics Learning Practicum is a subject that emphasizes students to be more creative in creating learning media. Furthermore, suitable teaching materials is needed based on basic competence that should be learnt by students including knowledge, skill, and affective attitude. By using mathematics learning media, students could review the material through students' interest, so their creative attitude would appear. Purpose of this study was that students could practice how to use mathematics learning media correctly while having a learning, so their creative attitude would appear. This study used product trial, that was a learning media by validating product, preliminary field testing that involved limited number of students from groups, and main field testing by practicing the existing media in front of all 5th semester students. After that, a set of questionnaires were delivered to students to determine their responses on the provided teaching materials. It could affect on their creative attitude. Result of the study was that students' creative attitude increased as 0.337 and the average of their response on the usage of teaching materials was as 3.5 in good category. It indicated that the teaching material that had been used and developed was very practical to improve students' creative attitude.

Keywords: *creative attitude, media*

INTRODUCTION

A set of materials or learning substances that are arranged systematically and feature the wholeness of competences that would be mastered by students in learning process are packed in a unity called teaching materials. Things to concern in the teaching materials are about knowledge, value, attitude, behaviour, and skill containing information and illustration in forms of facts, concept, principles, and process relating to a certain theme of discussion

and directedly to achieve a goal. Mathematics Learning Practicum is a subject in the Department of Elementary Teacher Education that focuses on producing learning media, by which students are encouraged to create media for mathematics learning in elementary schools.

Students of Elementary Teacher Education Department Unissula usually created learning media without having certain teaching material and clear standars. It meant that they observe the result of the existing learning media and result of others in social media, such as on

YouTube. It was also because of the absence of teaching materials from the lecturers. They just delivered materials by using PowerPoint and explained verbally, so that the learning still less optimal as there was no teaching material used in the learning.

The existence of teaching material expectedly could improve students' creative attitude. They expectedly could gain more knowledge from it. For example, how to choose tools and materials and how to create a good media. Furthermore, teaching material was needed as a reference for students in creating media. Creating learning media for Mathematics Learning Practicum subject could improve students' creative attitude.

Farida (2016) concluded that overall development of creative attitude was good. It was proved by the score gained by students on observation sheets was good on sub-indikator "questioning everything" as 63.4%. Based on questionnaires, highest number of students in very good category was on sub-indikator "respect on freedom".

Besides, Anon (2014) indicated that "creative attitude is built on tendency to look forward, ability to construct, and passion on new things." If learning source could be organized as a good unity, it would create more meaningful learning source. It possibly could encourage students to use it as learning source. If not, surroundings, things, persons and books are just places, things persons or books at all.

Based on the background, this study was conducted by developing Teaching Materials for Mathematics Learning Practicum for students of Elementary Teacher Education Department of Unissula.

Broadly speaking, teaching materials or learning materials consist of knowledge, skills, and attitudes that students must learn in order to achieve the determined competency standards. Cognitive, affective, and psychomotor aspects are those that must be mastered by students. These three aspects are very related. Affective aspects are often the main aspect of learning, for example, is the creative attitude of students.

The existence of teaching material expectedly could become an alternative for the

lecturers in delivering the materials, so the learning process could run optimally and variably, and it could improve students' creative attitude. Before selecting the materials, it is important to know the criteria. Main criteria in selecting a learning is standard of competence and basics of competence. It means that the materials that had been chosen should contain materials that truly support the standard of competence and basics of competence (Ghafur, 1986).

Mann (2014) indicated that considerable factors including achievement in mathematics, were attitudes on mathematics, self-perception from creative ability, and learners' perception on mathematics skill and creative attitude. Carin and Sund (Susanto, A, 2016:106) argued that creative people had certain characteristics. They usually had curiosity, ingenious, a willing to explore, selected difficult tasks, often solved problems, dedication on the job, flexible thinker, often asked, providing better answers than others, ability to synthesize, ability to observe new implication, energetic to observe, and wide knowledge. Rusefendi (Susanto, A, 2013:106) indicated that creative person is a person who is always curious, flexible, aware, sensitive on reaction and mistakes, argues in detail and independently, think into unpredictable direction, prospective view, skillful in solving problems, careful in receiving arguments, and probably difficult to be given orders.

Thus, it could be concluded that creative person is a person who has high curiosity, flexible, could solve challenging problems, and always thinks in an unpredictable way. Daryanto and Darmiatun, S (2013:146) stated that characteristics of creative person is that the person creates a work from materials available in class, suggests a new activity in class, expresses feeling in figures, art, written and oral communication, and takes actions to make he class comfortable. According to Sund (Slameto, 2010: 147) states that individuals with creative potential can be known through observing traits: 1) Curiosity desire is quite large. 2) Be open to learning experiences. 3) Long sense. 4) The desire to find and research. 5) Tend to

prefer heavy and difficult tasks. 6) Tend to look for answers that are broad and satisfying. 7) Have passionate dedication and are active in carrying out tasks. 8) Think flexibly. 9) Responding to the questions asked and tend to give more answers. 10) Ability to make analysis and synthesis. 11) Have the spirit of asking questions and researching. 12) Having a fairly good abstraction power. 13) Has a fairly extensive reading background.

According to Handoko (2017), in the world of education, creativity is considered as an element to be synergized with achieving teaching and learning goals. The nature and attitude of students could be formed by generating the power of imagination and creative power as the basis for discovering new, innovative and critical things.

One of aspect that plays an important role in the learning process is creativity, because creativity could support the development of Indonesian nation and state. In addition, students could have creative adaptation and imaginative expertise so that they could solve problems with new things in future changes.

These changes will continue to move towards progress not to drift away and sink into competition between nations and countries, especially in this era of globalization. Creativity in education if students are able to understand a way beyond their habits and remain calm to solve a problem.

In this study, assessment on creative attitude focused on a) the ability to plan and realize ideas, b) how to encourage a strong desire to do review, c) efforts to seek and find alternative strategy to solve problems in tasks or jobs.

METHOD

This study conducted used *Research and Development* (R&D) model. Method of Research and Development is a research method used to produce certain products, and test the effectiveness of certain products. Purpose of the study was to produce new products through process of research and development, and each product needed different

research (Sugiyono, 2008; Mulyatiningsih, 2012). This study would be developed as teaching material for the subject Mathematics for Elementary School Learning Practicum, in order to improve creative attitude of students in Elementary Teacher Education Department UNISSULA.

Procedure of development in this study including stages as follows:

a) Preliminary Study

On this stage, field study and literature study were conducted. Field study was conducted to determine problems in the subject *Basic Concept of Mathematics for Elementary School*. Field data relating to teaching material and preliminary response of students on the subject were collected here. Study on literature was conducted to determine proper solution from the problems in field study.

b) Development Stage

In literature study, a solution was obtained, that was teaching material for Mathematics Learning Practicum for students of Elementary Teacher Education Department Unissula. After being developed as needed, the validity of the teaching material was tested by experts, by using validation sheets based on determined criteria. After that, the teaching material was evaluated and revised, and then was tested in small scale. After being evaluated, the last stage in this development was hypothesis model or product of teaching material as a temporary solution.

Stages of developing teaching material:

a) Validating Product (Teaching Material)

The material was validated by validators (experts). While validating, the validators giving suggestion and comments about aspects and criteria of material directly on the validation sheet.

b) Preliminary Field-Testing (small group)

Preliminary Field-Testing was conducted by involving 5 students of PGSD FKIP UNISSULA at 5th semester. This is conducted in order to collect proofs of validity and effectiveness in field. Then, students

were given questionnaires to determine important findings and progress of students' response.

c) Main Field-Testing

Result of preliminary field-testing was evaluated and the teaching material was revised as needed. After that, main field-testing was conducted on all 5th semester students of PGSD FKIP UNISSULA.

Design of this testing was used to test the teaching material that was developed as material for Mathematics Learning Oractice subject. It was to test the developed products using *Pretest -Posttest Control Design*.

This study was conducted on 5th semester students of PGSD Unissulain academic year 2017/2018. Instruments used in this study were as follows:

a) Guidance for Interview

It was used to conduct an interview on lecturers and students. The interview was conducted to determine preliminary data relating to potential and problems happened in school.

b) Questionnaire

Questionnaire of Teaching Material Validation was used to determine validity of teaching material for Mathematics for Elementary School Learning Practicum by expert validator. Besides, questionnaire of students and lecturer's response was used to determine response of student and lecturers after conducting a learning using teaching material for Mathematics for Elementary School Learning Practicum, and also questionnaire of religious attitude to measure creative attitude after having a class using teaching material of Basic Concept of Mathematics for Elementary School.

Data analysis used in this study was as follows:

Analysis on Improving Creative Attitude

To determine the improvement of creative attitude before and after using the

teaching material, could be calculated by using test of normalized gain.

Analysis on valid and practical data

a) Validity Test

Validators would have assessment on on the teaching material consisting of some categories, based on rubrics of each indicator that the author had made. Validation sheet contained data of each validator's assessment on the teaching material, analyzed based on average score. The average score of each validator was calculated by average scores equal to validator's scores on each aspect divided by number of aspects.

Description about average score from teaching material assessment using scale of 5 as follows:

$1,0 \leq \text{average} < 1,8$ meaning "Not Good"

$1,8 \leq \text{average} < 2,6$ meaning "Less Good"

$2,6 \leq \text{average} < 3,4$ meaning "Moderate"

$3,4 \leq \text{average} < 4,2$ meaning "Good"

$4,2 \leq \text{average} \leq 5,0$ meaning "Very Good"

Kriteria: learning devices/tools were said to be valid if the average score of each device was on "good" or "very good" category.

b) Analysis on Practicality

1. Analysis on Creative Attitude

In order to determine level of ability to create and use teaching material in several meetings, data of observation result should be analyzed. Data of ability to manage learning that had been observed by an observer was analyzed by using descriptive statistics by calculating average score of each aspect in managing a learning. Criteria of Ability Level (AL) in creating and using media was as follows:

$1,0 \leq \text{AL} < 1,8$: Bad

$1,8 \leq \text{AL} < 2,6$: Less Good

$2,6 \leq \text{AL} < 3,4$: Moderate

$3,4 \leq \text{AL} < 4,2$: Good

$4,2 \leq \text{AL} \leq 5,0$: Very Good

AL: Ability Level.

Ability to use and create media was said to be good if each assessed aspects were on at least "good" category.

2. Analisis Questionnaire of Students' Response

Data of Questionnaire of Students' Response result was then analyzed by calculating average score on students' answers. Criteria of students' response was based on students' mostly chosen answers on the questionnaire, and each choice was given score 1 – 5. Criteria of students' response is presented on the following Table 3.1.

Table 1. Criteria of students' response

Interval of average score	Kriteria
$1,0 \leq \text{average} < 1,8$	Bad
$1,8 \leq \text{average} < 2,6$	Less Good
$2,6 \leq \text{average} < 3,4$	Moderate
$3,4 \leq \text{average} < 4,2$	Good
$4,2 \leq \text{average} \leq 5,0$	Very Good

Learning tools were said to be practical if the ability of managing a learning was on "good" or "very good" category and students' response was on "good" or "very good" category.

RESULT AND DISCUSSION

This study developed a teaching material that referred to the subject Mathematics Learning Practicum for students of PGSD Unissula. Product of the teaching material development in this study was in form of practicum teaching material that could be used when managing a lecture in order to improve students' creative attitude.

Test by Experts

Result of validation from validators showed that the average score was 3.58 of maximum 5, and was said to be in "good" category that could be tested on development stage without revision.

Revision was conducted based on assessment and suggestion from the experts, and then was tested to students. The subjects were 29 students in 5th semester. The testing was to determine the eligibility of the practicum teaching material. Design of testing was by using product of teaching material from the

development (practicum book) through students' creative attitude.

Large Scale Testing (Main Field-Testing)

Large scale testing was conducted to 29 students of PGSD Unissula at 5th semester. Control class used speech learning model, while the experiment class used learning book for mathematics learning practicum.

Validity Test

After the author conducted tests, there were 15 of 30 invalid questions on number 3, 4, 5, 6, 8, 9, 12, 13, 14, 15, 21, 25, 26, 29, 30 and the other 15 questions were valid on number 1, 2, 7, 10, 11, 16, 17, 18, 19, 20, 22, 23, 24, 27, 28. Based on the validity test, the author used 12 questions on number 2, 6, 7, 10, 11, 16, 17, 18, 19, 20, 27, and 28 as statement instruments that had been valid.

Creative Attitude

The development of teaching materials could improve the creative attitude of students. Increasing the creative attitude of students as an affective aspect had increased as a result of the application of learning using practicum teaching materials that had been developed. Learning carried out was able to optimize the ability of students to use and make mathematical teaching media, this could be seen from the comparison of students' creative attitudes between the control class and the experimental class.

Table 2. Distribution of First Investigation Frequency on Students' Creative Attitude (pre test)

Experimental Class			Control Class		
	Score			Score	
Indicators	of indicators	Criteria	Indicators	of indicators	Criteria
One	3,77	B	One	2,82	C
Two	3,88	B	Two	2,94	C
Three	3,32	C	Three	2,29	KB

Based on the data above, the experimental class obtained an average of the first indicator of achieving the indicator 3.77 with good criteria, the results of the achievement of the second indicator 3.88 with the criteria of good and the achievement of the third indicator 3.32 with sufficient criteria. while in the control class the results of the first indicator were 2.82 with sufficient criteria, the second indicator reached 2.94 with sufficient criteria and the third indicator reached 2.29 with unfavorable criteria.

Table3. Distribution of Students' Creative Attitude Frequency (*post test*)

Experimental Class			Control Class		
Indicators	Score of indicators	Criteria	Indicators	Score of indicators	Criteria
One	4,29	SB	One	2,92	C
Two	4,11	B	Two	3,21	C
Three	3,86	B	Three	2,93	C

Based on the data above, the experimental class obtained an average of the first indicator of achieving indicators 4.29 with very good criteria, the results of the achievement of the second indicator 4.11 with good criteria and the achievement of the third indicator 3.86 with good criteria. while in the control class the results of the first indicator are 2.92 with sufficient criteria, the second indicator reaches 3.21 with sufficient criteria and the third indicator reaches 2.93 with sufficient criteria.

Result of Analysis on Students' Creative Attitude Improvement

To find out an increase in creative attitude, it can be calculated using the normalized gain test. The amount of increase before and after learning is calculated by the normalized gain formula.

Table 4. Test of Normalized Gain

	Experimental Class	Control Class
<i>Pre test</i>	1352	991
<i>Post test</i>	1503	1086
<i>gain</i>	0,3370	0,117
<i>ternormalisasi</i>		
Criteria	Moderate	Low

Result of Questionnaire of Students' Response on Teaching Material of Mathematics Learning Practicum

Student responses to the learning process as well as the mathematics practicum teaching materials were obtained through questionnaires with respondents of all students in the experimental class. Questionnaire for student response is the response or feedback of the student towards the learning done by the lecturer. Based on the results of student responses / responses, the following results are obtained:

The response of experimental class students to the application of teaching materials reached an average value of 3.5 with good categories, thus the teaching materials developed had met the practical criteria.

DISCUSSION

Learning objectives can be achieved optimally if the teaching materials used are interesting, and in accordance with the level of development of students. Teaching materials made must be more interesting than existing textbooks and not only prioritize cognitive but also affective and psychomotor aspects proportionally. One option that can be used is making mathematics teaching materials, because it helps students in making mathematical teaching media. Through mathematics practicum teaching materials, the creative attitude that students have will be seen. The teaching materials used include tools and materials to be used in accordance with the teaching aids to be made, the language used in this teaching material is easy to understand, so that students have no difficulty in making media.

Teaching materials in mathematics learning practice act as teaching materials about the delivery of material on how to make media, as well as tools and materials to be used in making media, so that learning becomes effective. The development of teaching materials is based on the lack of availability of guidelines on making mathematics learning media on campus.

Based on the results of validation by experts on teaching materials, there were several improvements before being used in class trials. Revisions to the method of use in teaching materials to be written in detail, as well as there are revisions to the media image indicators, to be clarified in the shooting. Validation of learning teaching materials is carried out to produce the right teaching material. After revisions and improvements based on suggestions / input from expert validators, it can be tested in small classes. Data obtained at the development stage of this teaching material can be used for further revisions and improvements, so that the teaching material becomes the final product. Furthermore, the final product of learning teaching materials was tested in the experimental class compared to the control class, this is in line with the flow of development of modified teaching materials from Samsudi (2009).

Large-scale testing in this study used Posttest-Only Control Design, which is a research design in which there are two groups (experimental group) which were treated with teaching materials and (control group) were groups that were not treated with teaching materials.

In this development research to find out the improvement in creative attitude when using teaching materials and before using teaching materials is to use normalized gain test. To find out the difference in relative attitude between the experimental group and the control group. In the initial study, the second creative attitude indicator, which gave rise to a strong desire to conduct a reassessment, scored higher than the other indicators. But it is different when applied using teaching materials, the first indicator is

being able to plan and realize the idea of getting the highest score. This is because the teaching materials provided by students are very important for students, so that what is in the teaching material guide makes students able to plan and realize ideas at the beginning in making media, so students can arrange the media appropriately, and find out whether the media is made from materials that are dangerous or not.

After the analysis, there was an increase in the experimental class proved to get the number of pre test values in the experimental class of 1352, and got a post test score of 1503. So the normalized gain test was 0.337 with a moderate improvement criteria. Whereas in the control class, the number of values obtained in the pre test is 991, the post test was 1086 so the normalized gain test was 0.117 with the criteria of a low increase.

CONCLUSION

Result of the study conducted by the author showed that: The teaching material developed was very effective to be used by PGSD students because it was very helpful in the process of making media and visual aids evidenced by showing that the responses of experimental class students to the application of instructional materials in the form of teaching materials reached an average value 3.5. And there was an increase with the criteria being in the experimental class.

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Kulturkreise Between China, Korea and Japan Culture and Society

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Abstract

There are Legend of The Sky Son of the China Emperor, The Ancient Emperor Tomb, The Confusianism Ideas, Food at China. There are Legend of The Sun Son of The Korea Emperor, The Ancient Tomb of Korea Emperor, The Ideas of Confusianism, Food at Korea. There are Legend of Angel Sun, The Ancient Emperor Tomb, The Ideas of Confusianism beside Shinto at Japan. So there were Kulturkreise, between China, Korea and Japan. These Kulturkreise had been growth until now.

Keyword: *Cultures, Kulturkreise.*

INTRODUCTION

There a history of Kingdom life at China, Korea and Japan, that was a lot of influence each other of these three region. The Manchu Ming and The Manchu Dynasty had been conquered Korea and made Korea become their sousereign country. On the other hand, Japan Imperial Kingdom always try to conquered Korea, and it's began from Shogun Government at Japan.

Indeed, there are rivalry between China and Japan to conquered Korea, while Korea is always try to be Independence, but there is same race between China, Korea and Japan, that is Mongoloid. Then we look at the culture, there are also same culture between these Three region at the far east. The same culture is the King Semetary, clothes, and food and religion and almost the same is the folklore.

QUESTION

How are there are a lot of same culture between China, Korea and Japan?

DISCUSSION

There was a Culture Theory named Kulturkreis by F.Graebner. It is said that where are among places had been found the same culture it could be Kulturkreis. There are same culture between China, Korea and Japan. Began with the ideas, that is Legend, Confusianism at China, Korea and Japan, Noodle, and the ancient Emperor Tomb at China, Korea and Japan. Korean food named Bulgogi is the expand of food named Maekjeok, and Maek is the place of the east of China. Maek was the references for Goguryo Kingdom of Korea. Maekjeok is like a China Shiskebab, and become Bulgogi soon after there was barbeque food cook maner.

China

The merely the same Legend about Sun God and Sun Goddes between China, Korea, and Japan people.

There were a lot of Ancient China King wear name The Son of The Sky. Ancient People of China, believed to Nature God and Goddess, lake a Sky God, Moon Godess, Rain God, Thunder God. And at the time of Hereditary

Kingdom, A lot of The China King Dynasty wear The Name of The Sky Son.



China is a country deeply Influenced by Confusianism (Peter Wang, December 7, 2015). Confusianism is philosophy ideas, that is found by Kung Fu Tzu. Confusianism was taught that The Emperor is merely like Father. We must respect to Emperor like we gave respect to Father. Furthermore, Imperial is like a family. Imperial will be good if the Emperor is a good Emperor, so with family, family will be good, if the father is a good father. Respect to Emperor merely like respect to Father is continued on semetary. There were, clothes, diamonds ring, and others golds were present inside the semetary. Among China tradition mind, death is just move to other world living.

Korean

There is a legend among Korean People about King Tan Gun. The legend was began with the coming of Prince Hwanung the Son of Sun God, to the world. And Price Hwanung married and has a son name Prince Tan Gun. Prince Tan Gun built Kingdom at Korea. The Korean Culture was seen at The Semetary of The King Baekje Kingdom. It was the same time with the Kofun period at Japan History.

One of the most influence in Korean live is the influence of Confusianism from China. Today the legacy of Confucianism remains fundamental parts of Korean Society, shaping the moral system, the way of life, social relation

between young and old, high culture, and is the basis of much legal system (From Wikipedia;The Free Encyclopedia). There are also Clothes, Diamond Ring, and Golds inside the King Semetary at Korea.

Japan

There is a legend among Japan people, the Grandson of Sun Angel, was coming to the



world and built Japan Imperial Kingdom. Like a China Emperor as the Son of The Sky, and The Emperor of Korea that is The Son of Sun God.

This Ancient Semetary of Japan Imperial Kingdom was at the time of Kofun. The Kofun period on Japan History is the same period with Baekje Kingdom at Korea. There was Baekje Kingdom officer came to Japan Imparial Kingdom, and propose Buda's Religion to Japan Imperial Kingdom.

Shinto taught there must be loyalty to Emperor (agama-agamadunia2017ih3akelompok7.blogspot.com/2017/11) . Everyone at Japan, must gave their loyatly to Emperor. It is similiary like with Confusianism taught, that man must gave respect to Emperor as for Father in Family.



The Ancient Emperor Tomb pictures above is the usefull media on teach and seminar presentation. Picture is usefull for gave illustration, gave attention, and made clear ideas, and made bridges between lesson and the reality (Daryanto;19, 2015).

CONCLUSION

- A. China, Korea and Japan, are the same race and culture. It began with Confusianism from China to Korea and Korea send Diplomatic Mission to Japan, that made Japan courious to learn more about Budha and China Culture.
- B. Confusianism is acceptable philosophy for Korea and Japan. Confusianims taught Ethic on Society. It is same with Shinto of Japan Ancient Beliefs. And so with Budha, Christian and Islam.
- C. There were Kulturkreise between China, Korea and Japan, that there were the spread Confusianism, food, ethics and Ancient Emperor Tomb of China, Korea and Japan.
- D. There must be a good friendly era of relationship between China, Korea and Japan. It will made peace and good growth welfare society at the region of Far East. If it so, there will be a good economic growth, social and culture and political understanding between China, Korea and Japan.
- E. Indonesia will have opportunity to propose education and technology memory of understanding and

economic product on export and import to China, Korea and Japan.

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Classical Mentoring Services to Overcome Consumptive Behavior of High School Students

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Abstract

Classical guidance to overcome students' consumptive behavior is guidance and counseling services that can provide an understanding of a person's behavior. This study aims to look at classical guidance services in dealing with the consumptive behavior of high school students. It was found that students who still have consumptive behavior in the school environment such as still using ineffective money, for example, spend more on less important needs compared to school needs. The problem examined in this study used the guidance and counseling research approach (PTBK). The target subjects of the study were 15th grade students of Kosgoro Tomohon High School. The instrument of data collection is the researcher himself with observation techniques, interviews, anecdotal records, and document analysis. Data were analyzed using qualitative analysis. This study took place in 2 cycles and the results can be concluded that classical guidance services can overcome the consumptive behavior of high school students.

Keywords : Classical Mentoring Services, Overcome Consumptive Behavior, High School Student

INTRODUCTION

The need for certain lifestyles by the community makes business mushrooming by business people such as shopping centers, supermarkets, boutiques, department stores (convenience stores) even to propagate online businesses using mobile, computer and other media. others, which can be accessed via the internet. This condition will lead to a consumer or consumptive culture in society, especially for those who are in the world of work or school children. The consumptive culture will shape someone's personal behavior.

Consumptive behavior is a luxurious lifestyle that does not consider the effects of

this behavior. Consumptive life behavior is even very detrimental to the individual at a personal level. The development of science and technology today, encourages increasing human needs. Every human being has different needs and to fulfill these needs, every human being consumes goods and services. The difference in life needs causes differences in consumption patterns in humans. There are people who have a reasonable consumption pattern but some are excessive or unnatural. In individuals who have excessive consumption patterns there has been a change in the concept of consumption. Consumption is no longer a necessity but it turns into a hobby. Every day even every time the community is presented with certain

products or goods either through social media (online) even through shopping centers (shopping centers). Even business people intentionally promote products with the aim of persuading consumers to buy a product.

According to Scholte, consumptive behavior is acquiring human behavior quickly (and also usually quickly discarding) a variety of 33 items that are provided to the user immediately, but their satisfaction is instantaneous (in Sri Wening, 2012: 10). Dahlan (Sumartono, 2002: 118) suggests that consumptive behavior is characterized by the existence of extravagant and excessive life, the use of everything that is considered the most expensive that provides maximum physical satisfaction and comfort as well as the pattern of human life that is controlled and driven by all the desire to fulfill the desire for pleasure solely.

Lately, we often see new lifestyles, especially high school students, many students have fun spending a variety of unnecessary needs compared to buying books or the need for school. This situation makes the thinking material for teachers and school leaders to give understanding to students because most students are influenced by consumptive culture by following the current trends in terms of clothing to the appearance. It is very worrying that this can have a negative impact on student learning achievement in schools, if the root causes and solutions to these problems are not immediately addressed, education can only be a symbol and schools are considered to have no role in supporting student achievement and success.

Classical guidance services are chosen as one of the most important services in overcoming the problems (consumptive) of students, as listed above. Through classical guidance services, students are expected to be able to overcome their consumptive behavior in daily life both in the school environment and in the community.

METHOD

The type of research used is Counseling action research (PTBK), which is one problem solving strategy that utilizes concrete actions and the process of developing capabilities in detecting and solving problems. By carrying out two cycle rounds. The research subjects were 15 guiding teachers and class XI students. Data collection techniques used include: Observation and Interview. Data were analyzed by descriptive-analytical techniques.

RESULT

After conducting research using classical guidance services in accordance with the design in the first cycle of activities, after classical guidance services were carried out in the first cycle, it was found that there were still students who behaved consumptively, where the students spent all their money shopping at the shop even treating their friends . According to the student this style has become a habit, so he gets a more honorable social status from his other friends. Moreover, his parents always gave him more pocket money, without supervision. This attitude later became the attention of the teacher, while continuing to provide advice and guidance to the student who was able to take the commitment not to behave in this way.

Whereas in cycle II, since receiving classical guidance services, based on the results of observations, students showed a better attitude. They no longer spend all of their pocket money in the canteen, but some of their money is saved to meet the needs of others. Students who are considered "bosses" by their friends have also shown a more economical attitude. He did not spend his money to shop, but set aside some money for other needs.

DISSCUSION

The results of the study found that lack of attention from parents is one of the factors causing consumptive behavior carried out by their children. Parents are always busy with their work and give less attention to their children, causing children to seek attention

from outside by making fun of examples such as wasting money on things that are not important compared to school needs.

The school environment also has an important influence on the development of children and therefore requires collaboration between the school and parents. Because psychologically, adolescents are still in the process of forming identity and very sensitive from outside influences. Teenagers are more directed towards lifestyle to choose items that are not needed or not basic needs, it is influenced by the characteristics of typical teenagers, such as easy to be attracted to fashion, like to use money, unrealistic, so easily entangled in buying behavior that consumptive. (Sumartono 2002)

The economic behavior phenomenon of high school students is now generally influenced by consumptive behavior, namely the behavior of a consumer where the desire to buy items that are less needed to meet personal satisfaction arises. Consumptive behavior of modern society today is more inclined to emotional motives, consumption is used to form self-identity which ultimately forms a lifestyle in certain status groups. This consumption activity reflects the consumptive behavior of modern society. Consumptive behavior is reflected in consumer behavior. Basically, consumer behavior which includes adolescent consumption behavior can be influenced by the following factors: (1) environmental influences, namely culture, social class, personal, family and situation influences, (2) individual differences and influences include: consumer resources, motivation and involvement, knowledge, attitudes of personality, lifestyle and demography, and (3) psychological processes, including information processing, learning, and changes in attitudes and behavior.

CONCLUSION

Based on the results of data analysis and the discussion above, it can be concluded that the application of Classical Guidance Service Services Can Overcome High School Students'

Consumptive Behavior. Students have been able to overcome their own behavior, for example, they have been able to choose important school needs compared to other needs. Besides that the role of the BK teacher in the school must also function according to his authority. Changes in the lifestyle of adolescents today can not be separated from cultural changes, as well as the mindset adopted by the community concerned. Now teenagers are more pleased with things that are instantaneous, pragmatic, and tend to be westernized. There is almost no gap to avoid the invasion of various information around which is related to consumption activities.

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The Effect of Facebook Social Media on Cyberbullying in Teen

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Abstract

Social media is beneficial for humans to interact and meet human communication needs. One of the popular social media sites is Facebook. Social media is positively beneficial for adolescents, which is to make teenagers establish relationships with other people. However, there is one unique phenomenon here, namely freedom of speech. Until it causes cyberbullying. The purpose of this study was to determine the effect of social media on cyberbullying on adolescents in Wawalintouan, West Tondano District. This research is a quantitative approach with descriptive method. The number of samples taken were 56 adolescents in Wawalintouan sub-district from a total of 282 adolescents. To test the hypothesis of this study using simple linear regression techniques with questionnaires as a medium for data collection. The results showed that social media variables influence the cyberbullying variable and the direction of the influence of social media on cyberbullying is positive, this is evidenced by the cyberbullying regression coefficient of 0.450 which shows a positive number. Then in the hypothesis test, seen from the F test, the calculated F value (23,035) is greater than F Table 4.02 and the significance is smaller than 0.05. The R Square value obtained is 0.299 or 29.9%, so the hypothesis H 1 is accepted and H 0 is rejected. This means that if there is a change in the value of social media it will be followed by a change in the value of cyberbullying. Social media also has a contribution of 29.9% cyberbullying.

Keyword : *Facebook, Social Media, Cyberbullying, Teen*

INTRODUCTION

Human life can not be separated from technology called internet. Internet in the era of globalization as it is today is needed. Today's internet is like being transformed into a primary need that is equivalent to food, clothing, and shelter. Without internet access, it feels like life someone has not really lived. The benefits of

the internet for humans are indeed quite a lot and very helpful in everyday life.

One feature that can be accessed via the internet is social media. Social media is a relationship such as a building block of the social world, each circuit in it has a relationship that is combined to create a network pattern, it arises from the connections that exist between people, groups, and other things (Hansen, Shneiderman, & Smith , 2011)

According to the Indonesian Internet Service Providers Association (APJII) in 2017, as many as 143.26 million Indonesians are connected to the internet or 54.86% of the total population of Indonesia, which is 262 million. A total of 87.13% of services accessed are social media. One of the social media that can be accessed is Facebook.

Facebook is a social networking website containing interesting features such as means to send messages, display images, find new friends, and many other features that can be easily accessed. During the development of technology and information, it is now possible for all groups to access Facebook social media, starting from the upper social class community to the lower classes of society, including students or in this case adolescents. Currently accessing social media Facebook has become a routine for the community, especially teenagers. Facebook is considered attractive and fun for teenagers.

Facebook users who actively create the content of information messages and in accordance with what each wants. And this is what makes it very interesting, through this media humans can meet various needs such as cognitive, affective, personal integrative needs, as well as entertainment or relaxation needs. And because of its speed, social media Facebook began to appear to replace the role of conventional mass media in spreading the news. The use of social media Facebook is an integral part of everyday life in Indonesia, including teenagers in Wawalintouan.

Among the myriad of positive attractions of Facebook social media and how this has become a phenomenon in society, there are also negative things that are part of the impact. There is one unique phenomenon that can be observed here, namely freedom of speech.

Those in the real world are afraid to think as if they have space to express themselves through social media. But on the other hand, because it is too free to express that people forget ethics in expressing opinions. So that harsh words often decorate the comments column in an online forum. Without further ado, even without taking into account the negative impact of the sarcastic opinion. Even often cyber violence or cyberbullying occurs and is carried out by teenagers.

Cyberbullying is a harsh treatment by a person or group of people, using the help of electronic equipment that is repeated and continuously on a target who has difficulty defending himself (Smith et al. 2008). Cyberbullying is an action where actors act out of bounds to others by sending or posting material that can damage credibility, insult or carry out social attacks in various forms, by utilizing social media.

Active teens in using Facebook social media need to be explored further because Facebook social media is one of the triggers for violence in cyberspace or cyberbullying. Violence on social media Facebook or cyberbullying is easier to do than conventional violence because the perpetrator does not need to be face to face with other people who are the target. They can say bad things and easily intimidate their victims because they are behind a computer screen or stare at a smartphone screen without having to see the consequences of the victim.

Adolescence is a transition period from childhood to adulthood characterized by the acceleration of physical, mental, emotional, and social development. With the development of the times and technology making social media Facebook an integral part of the daily lives of adolescents. However, often social media has a

dangerous impact on teenagers who accidentally get information from the media accessed. The amount of information that can be seen by teenagers from Facebook social media easily sometimes has a negative impact. For example, posts that contain swear words, insults, and so on. Teenagers who still have the character of labile and emotional souls often misinterpret what they get through social media. Circumstances like that make teenagers often provoked curiosity to try new things offered to them through social media which eventually lead to negative behavioral changes in adolescents. By looking at the current situation many teenagers imitate what they see from Facebook social media, and unwittingly teenagers have done bad things even to the point of violence in cyberspace or often called cyberbullying.

METHOD

This research uses descriptive method with a quantitative approach because the research data is in the form of numbers and data analysis using statistics. Descriptive research is research that seeks to describe a phenomenon, event, event that occurs at the present time (Sudjana, 2001).

The location of research is the place where the research will be conducted. In this study, researchers took place in the Wawalintouan sub-district, West Tondano District.

The population in this study were all adolescents in the Wawalintouan sub-district, which numbered 282 adolescents. Samples are partially or representative of the population studied (Arikunto, 2010). This study uses 20% of the sample population, which is 56 adolescents.

Data collection is done by a psychological scale that includes the scale of organizational commitment and achievement motivation compiled by the researchers themselves. Data analysis techniques to test the hypothesis of this

study using simple linear regression techniques. For the sake of statistical analysis in this study SPSS 16 program (Statistical Package For Service Solusion) was used for windows.

RESULT

Table 1. Simple Linear Regression Test Results

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	34.656	5.373		6.450	.000
media sosial	.450	.094	.547	4.799	.000

a. Dependent Variable: cyberbullying

Based on table 1 above, the results of the analysis can be seen that the constant of 34,656 means that the consistent value of the achievement motivation variable is equal to 34,656. Then the regression coefficient of organizational commitment of 0.450 states that every 1% increase in the value of organizational commitment, the value of achievement motivation increases by 0.450. The regression coefficient is positive, so it can be said that the direction of the influence of variable X on Y is positive.

Table 2. F Test Results

Model	ANOVA ^a				
	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	1620.734	1	1620.734	23.035	.000 ^b
Residual	3799.391	54	70.359		
Total	5420.125	55			

a. Predictors: (Constant), media sosial

b. Dependent Variable: cyberbullying

Based on table 2 above, it can be seen that the price of Fcount is 23,035, while the Ftable value can be obtained by using table F with the residual degrees of freedom (df) as the denominator, 54 and (df) regression as 1, with a significance level of 0.05. Ftable price of 4.02. It is known that the price of Fcount = 23,035 > Ftable = 4.02 so that the hypothesis H1 is accepted. This means that if there is a change in the value of social media it will be followed by a change in the value of cyberbullying.

The magnitude of the influence of social media on cyberbullying is shown in table 3 below. Where r value is 0.547 with a coefficient of determination $r^2 = 0.299$. This means that social media has a relationship with cyberbullying of 54.7% and cyberbullying is influenced by 29.9% by social media factors, while the remaining 70.1% is influenced by other factors.

Model Summary

Adjusted R Square	Std. Error of the Estimate
.286	8.388

a. Predictors: (Constant), media sosial

b. Dependent Variable: cyberbullying

DISCUSSION

Based on data analysis that has been done, data from social media variables and cyberbullying variables are normal and linear data so that they can be tested for simple linear regression. In a simple linear regression test, it was found that social media variables influence the cyberbullying variable and the direction of the influence of social media on cyberbullying is positive, this is evidenced by the regression coefficient value of organizational commitment of 0.450 which shows a positive number. Then in the hypothesis test, it was found that the price of Fcount = 34.656 > Ftable = 4.02 so that the hypothesis H1 was accepted and H0 was rejected. This means that if there is a change in

the value of social media it will be followed by changes in the value of teenage cyberbullying. Social media also has a 29.9% contribution to cyberbullying in adolescents.

CONCLUSION

Based on the results of research, data analysis and discussion, it can be concluded that social media has a positive and significant influence on cyberbullying in adolescents in Wawalintouan Sub-District, West Tondano District. This shows that Facebook social media is one of the factors triggering violence in cyberspace or cyberbullying. Therefore, it is still very necessary for parents to monitor their children who have used social media but cannot filter out the sentences that will be written on social media. As well as to reduce cyberbullying behavior towards individuals, we should use good sentences. Give input or criticize individuals, not bullying.

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Development of Scientific Literacy-Based Instructional Material on The Beach Theme

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Abstract

The aim of the study was to produce a scientific literacy-based textbook draft on the beach theme which referred to the 4D (Define, Design, Develop, Disseminate) development model. This study was limited only to Develop stage to produce a feasible textbook draft before it is implemented to students. In Develop stage, the textbook draft was validated by 5 experts consisting of 3 Science Lecturers (1 Chemistry, 1 Physics & 1 Biology) and 2 Science Teachers. The validation instrument was adapted from the Textbook Quality Assessment Instrument that was categorized into 6 indicators. Those indicators were suitability of curriculum, accuracy & update material, mode of representation & linguistic, encouraging thinking skills & curiosity, suitability of student characteristics, and integration which entirely consisted of 34 descriptors. The findings showed that the developed-textbook draft fulfilled the suitability of curriculum indicator with the percentage of 80% in very suitable category. Furthermore, accuracy & update material indicator was 82.5% with very suitable category, mode of representation & linguistic indicator was 89.2% with very suitable category, encouraging thinking skills & curiosity was 82.9% with very suitable category, suitability of student characteristics indicator was 85.7% with very suitable category, and also integration criteria was 91.3% with very suitable category. Thus, it can be concluded that scientific literacy-based instructional textbook on the beach theme was very feasible to be implemented on students learning with the percentage of 85.3% in very suitable or very feasible category.

Keywords: *Instructional Material, 4D Model, Scientific Literacy*

INTRODUCTION

Scientific Literacy is the ability to engage in issues and ideas related to science as reflective communities (OECD, 2017). Scientific literacy skills are very important for students, especially in Indonesia as a provision of knowledge and skills in maintaining, preserving and solving problems, and how to appropriately and wisely utilize Indonesia's natural wealth. Indonesia is the biggest archipelago in the world. Three-quarters of Indonesia's territory is ocean (5.9 million km²) which geographically has 17,504 islands (including small islands) and is one of the countries with the longest coastline in the world of 95,161 km (Lasabuda, 2013). Thus, students as the future generation of Indonesia are required to have the knowledge and skills in maintaining, preserving, and solving problems, as well as how to utilize Indonesia's natural wealth appropriately and wisely.

However, students' scientific literacy abilities in Indonesia were still low. The 2015 PISA (Program for International Student Assessment) results showed that Indonesia was ranked in 62 of 70 countries with the score of 403, while the average of OECD score was 493 (OECD, 2016). Similar results were also found by Aryani, Suwono, & Parno (2016) which revealed that the scientific literacy skills of junior high school students in Indonesia were relatively low. One way to improve students' scientific literacy skill is through the use of learning resources that is not only improving scientific literacy skills, but also raising the potential and socio-scientific issues in the environment around students. Instructional materials with a socio-scientific context can improve students' scientific literacy skills (Rostikawati & Permanasari, 2016). Improving scientific literacy through science education can be done by developing the ability to utilize knowledge and skills based on scientific evidence in responsibly making

decisions to solve socio-scientific problems (Holbrook & Rannikmae, 2009).

The use of environment-based learning resources is not only provide a learning experience, but also aims to introduce the natural and potential of the nature (Permatasari, Hariyono, & Purnomo, 2013). Therefore, the theme of science teaching materials about the beach in Indonesia as an integrated learning is an interesting choice because it encourages students to explore the science concept through beach natural phenomena and improves students' scientific literacy skills. The findings of Suryaneza & Permanasari (2016) revealed that integrated science learning could improve students' scientific literacy skills. In addition, the selection of beach environment as the integration theme can produce a high quality instructional material (Widyarini & Kartika, 2012).

Based on the previous explanation, it is strongly shows that the need for instructional materials that can improve scientific literacy by raising the potential of nature is quite high. So, this study aims to develop scientific literacy-based instructional material on the beach theme.

METHOD

The research method of this study was developmental research method. The aim of the study was to produce a scientific literacy-based textbook draft on the beach theme which referred to the 4D (Define, Design, Develop, Disseminate) development model (Adapted from Thiagarajan, Semmel, & Semmel, 1974). The 4D development model consists of four stages, the first stage is Define. Define is the needs analysis stage of instructional material that consists of front-end analysis, learner analysis, task analysis, concept analysis, and specifying instructional objectives. The second stage is Design which consists of 4 steps, there are constructing criterion-referenced test, media selection, format selection, and initial design. The next stage is Develop which

consists of expert appraisal and developmental testing. The final stage of the 4D development model is Disseminate which consists of validation testing, packaging, diffusion and adoption.

This study was limited only to Develop stage to produce a feasible textbook draft before it is implemented to students. In Develop stage, the textbook draft was validated by 5 experts consisting of 3 Science Lecturers (1 Chemistry, 1 Physics & 1 Biology) and 2 Science Teachers. The validation instrument was the Textbook Quality Assessment Instrument (Adapted from Sinaga, 2014) that was categorized into 6 indicators. Those indicators were suitability of curriculum, accuracy & update material, mode of representation & linguistic, encouraging thinking skills & curiosity, suitability of student characteristics, and integration which entirely consisted of 34 descriptors. The score of each descriptor by the validator were analyzed using the following formula:

$$X = \frac{\text{Score}}{\text{Maximum Score}} \times 100\%$$

The interpretation of results is given in Table 2.1.

Table 2.1: Interpretation of Percentage of Textbook Quality Assessment

Range	Interpretation
$80 \leq X$	Very Suitable
$60 \leq X < 80$	Suitable
$40 \leq X < 60$	Quite Suitable
$20 \leq X < 40$	Less Suitable
$X < 20$	Not Suitable

(Adapted from Arikunto, 2006)

RESULTS AND DISCUSSION

Define

Define stage is an analysis phase that aims to set the needs analysis and objectives to produce instructional materials. There were five activities carried out in this stage:

- a. Front-end Analysis

Front-end analysis aims to identify the problems to be studied. In this study, the Indonesian science education curriculum was analyzed which contained eight national education standards. The results of the analysis showed that there is still a gap between the standards of the science education curriculum of Indonesia and the reality, especially in process and content standards. The process standard of Indonesian science curriculum emphasizes an interactive learning, inspirational, fun, challenging, and motivates students to develop creativity, initiative, and independence in accordance with the interests, talents, physical and psychological development of students (Kemendikbud, 2016b). Moreover, the content standard of Indonesian science education curriculum, especially at Junior High School level, is implemented in an integrated learning both interdisciplinary and intradisciplinary which is adjusted to the expected competencies. Thus, the learning process of chemistry, physics, biology and earth science at Junior High School level should be carried out in an integrated learning so that the boundaries of scientific disciplines are no longer clearly visible because the science concepts are intertwined and/or related to around issues (Kemendikbud, 2016).

The results of analysis revealed that the demand of science curriculum standards still cannot be ideally implemented which includes content, values, attitudes, and science skills. There are many influencing factors, one of them is due to the teacher's difficulty in planning learning process. The difficulties include in preparing an integrated lesson plan so that science learning tends to be partially implemented and the learning context has not accommodated the development of students' scientific literacy skills. In addition, some teachers have not yet fully mastered all the content of science

materials in depth because their educational background comes from the departments of chemistry, physics, and biology. Moreover, it is also influenced by the skills of science teachers in delivering and providing integrated science learning experiences (Dewi, Sadia, & Ristiati, 2013; Insani, 2016; Nuroso & Siswanto, 2010). In terms of the instructional materials used, the findings of Wahyu, Fathurohman, & Markos (2016) revealed that the science books of Junior High School have reflected scientific literacy aspects but still there is no balanced proportion which the proportion of scientific knowledge aspect is still greater than other aspects.

b. Learner Analysis

Learner analysis aims to analyze the characteristics of students so that the developed instructional material could be relevant for students. PISA (Program for International Student Assessment) is one of the international standard assessments to measure scientific literacy skills of 15-year-old students in almost all countries in the world (OECD, 2017). The 2015 PISA results showed that Indonesia ranked in 62 of 70 countries and got score 403 in scientific literacy domain while the OECD average was 493. The results

indicated that students' scientific literacy skills in Indonesia were still low. The results were also supported by data from research by Aryani et al., (2016).

The use of science literacy-based instructional material is expected to develop students' scientific literacy skills. In addition to help students achieve the targets, the developed instructional material must be adapted to the age of students' cognitive development (Nuroso & Siswanto, 2010).

c. Task Analysis

Task analysis was the stage of skills identification that will be embedded in students through the developed instructional materials. This study prioritized students' skills in understanding of each text on the textbook. Each discourse was equipped with questions related to everyday phenomena at the beginning that will encourage students to think critically and trigger their curiosity.

d. Concept Analysis

Concept analysis aimed to analyze Basic Competencies for Junior High School science subject and to identify the relevant concepts about the beach theme for the developed textbook. The basic competencies are given in Table 3.1:

Table 3.1: Basic Competencies & Concepts of the Beach Theme

Subjects	Basic Competencies	Concepts
Chemistry	3.3 Explain the concept of mixture and single substances (element and compound), physical and chemical properties, physical and chemical changes in everyday life	<ul style="list-style-type: none"> • Properties and Changes of Matter • Element • Compound • Mixture • Separation Mixture
Physics	3.4 Analyze the concept of temperature, expansion, heat, heat transfer, and its application in everyday life including the mechanism to maintain body temperature stability in humans and animals	<ul style="list-style-type: none"> • Temperature • Heat • Heat Transfer
	3.5 Analyze the concept of energy, energy sources, and energy changes in in everyday life including photosynthesis	<ul style="list-style-type: none"> • Energy • Energy Sources • Energy Changes
Biology	3.7 Analyze the interactions between living things and their environment and population dynamics due to these interactions	<ul style="list-style-type: none"> • Photosynthesis • Ecological Unit • Beach Ecosystem

		<ul style="list-style-type: none"> • Symbiosis • Food Chains • Food Webs • Ecological Pyramid
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Integrating the concepts in table 3.1 can use the Webbed model. Webbed is an integration model that uses a thematic approach to integrate subject matters (Fogarty, 1991). In addition to accommodating or binding concepts in table 3.1, the selection of beach environment as the theme aims to students can get to know and explore the natural potential around them through science learning. The Webbed integration model on the Beach theme can be seen in Fig. 3.1.

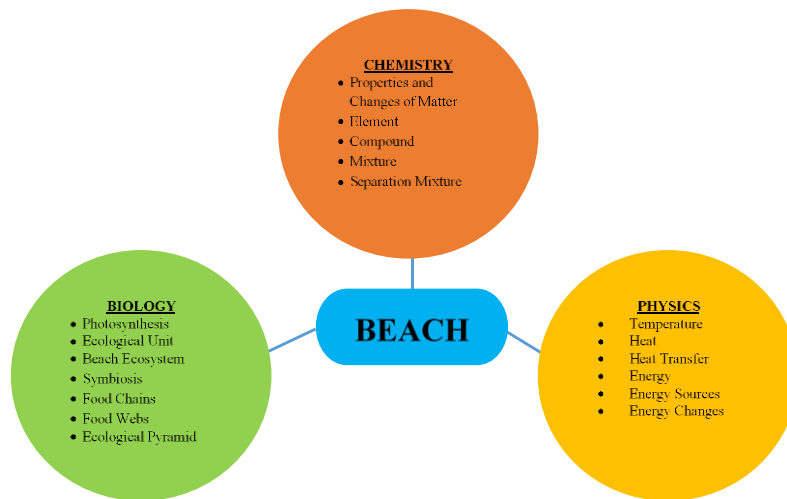


Fig. 3.1 Webbed Model on The Beach Theme

e. Specifying Instructional Objectives

This step was the formulation of learning objectives based on basic competencies, the beach theme, and adapted to scientific literacy aspects consisting of knowledge, competencies, context and attitude towards science. Basic Competencies in table 3.1 produce 14 learning objectives. There were:

- 1) After reading the text about the properties and changes of matter, students can explain the differences between the physical and chemical properties and changes of matter in daily lives correctly
- 2) After reading the text about the component of sand and sea water, students can identify the elements and compounds contained in seawater and sand properly
- 3) After reading the text about sand and sea water as kinds of mixture, students

can explain the concept of mixture correctly

- 4) After reading the text about mixture, students can distinguish the two types of mixtures appropriately
- 5) After reading the text about separation mixture, students can apply the effective separation methods to separate the mixture of sea water and salt effectively
- 6) After reading the text about the effect of heat on temperature changes, students can analyze the effect of heat on temperature changes on the beach environment appropriately
- 7) After reading the text about heat transfer, students can prove heat transfer that occurs on the beach environment correctly
- 8) After reading the text about the concept of energy, students can

- explain various changes of the forms of energy in daily life properly
- 9) After reading the text about energy sources, students can strive for energy efficiency and utilize alternative energy sources effectively
 - 10) After reading the text about transformation of coastal plants, students can analyze the photosynthesis process of plants and algae around the coastal area appropriately
 - 11) After reading the text about ecological units, students can distinguish the level of organization of living things on the beach habitat appropriately
 - 12) After reading the text about the beach ecosystem component, students can identify the biotic and abiotic components of the beach ecosystem appropriately
 - 13) After reading the text about the components of the beach ecosystem, students can identify interactions

- between the components of the beach ecosystem appropriately
- 14) After reading the text about the beach ecosystem, students can classify the relationship of interdependence among the components of the beach ecosystem appropriately

Learning objectives 1-5 are the formulation results of the Basic Competencies (BC) 3.3. Moreover, learning objectives 6-7 and 8-10 are formulated from BC 3.4 and 3.5 respectively. So as BC 3.7 also produces learning objectives 11-14. In addition to being formulated from basic competencies, learning objectives are also adjusted to scientific literacy aspects which consist of knowledge, competencies, context and attitude towards science (OECD, 2017). The adjustment between learning objectives and scientific literacy aspects is given in Table 3.2.

Table 3.2: The Formulation of Learning Objectives and Scientific Literacy Aspects

Scientific Literacy Aspects		Learning Objectives
Knowledge	Content	1, 2, 3, 4, 7, 8, 10, 11, 12, 13, 14
	Procedural	5
	Epistemic	6, 9
Competencies	Explain Phenomena Scientifically	1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 12, 13, 14
	Interpret Data and Evidence Scientifically	6
Context	Personal	1, 2, 3, 4, 5, 10, 11, 12, 13, 14
	Local/National	6, 7, 8
	Global	9
Attitude	Interest in Science and Technology	1, 2, 3, 4, 5, 6, 8
	Valuing Scientific Approaches to Enquiry	7
	Environmental Awareness	9, 10, 11, 12, 13, 14

The arrangement of scientific literacy aspects in table 3.2 refers to the skills demanded in the learning objectives. Thus, students are expected to have these skills at the end of learning.

Design

The Design Stage aims to produce a draft of scientific literacy-based book on the theme beach theme. The draft of textbook

was designed based on the analysis results at Define stage. The description of the presented topics was adapted from various Chemistry, Physics and Biology textbooks as well as other references in accordance with the beach theme. There were four activities carried out at this stage:

- a. Constructing Criterion-Referenced Tests

In this study, this step aimed to compile scientific literacy practice

questions given to students in textbooks. Preparation of scientific literacy practice questions based on the learning objectives that have been formulated previously.

b. Media Selection

This step aimed to determine the media used to deliver information to students. In this study, the media used was printed media in the form of textbooks containing science topic in accordance with the beach theme.

c. Format Selection

Format selection is the selection of the developed textbook format which outlines the entire contents of the textbook. The format of the beach theme textbook is organized into three main topics (chapters) which are generally described as:

1) CHAPTER 1 Beach Materials

In CHAPTER 1 Beach Materials, the book presents three sections, those are: Properties & Changes of Matter; Sand & Sea Water Components; and Sand & Sea Water as Kinds of Mixture. Generally, this section discusses about sand and sea water as the materials that can be found on coastal environments easily. In addition, the principles of separation mixtures are also presented in this chapter.

2) CHAPTER 2 Beach Potential as an Energy Source

CHAPTER 2 Beach Potential as an Energy Source contains a discussion about Temperature & Heat on the Beach Environment as well as the Utilization of Sea & Beach Potentials. Generally, chapter 2 discusses about the concepts of energy, the forms of energy and the sources of energy that can be exploited from the beach.

3) CHAPTER 3 Beach Ecosystem

CHAPTER 3 discusses about the ecological units and the concept of ecosystem. Furthermore, it is also explain about the components of the beach ecosystem consisting of biotic and abiotic components. In addition,

the beach theme textbook also presents the topic about the organisms of beach ecosystem based on patterns of interaction and energy flow that can occur between the organisms.

Each chapter in the textbook is also equipped with various features, including:

1) Basic Competencies & Learning Objectives, containing basic competencies and learning objectives that are expected to be achieved by students after using the beach theme textbook.

2) Concept Map, contains concept maps about the concepts that will be studied by students. Concept maps are presented in each chapter.

3) BAKAU (Berita Faktual & Unik), presents factual and unique information in daily life that relates to the topic.

4) PASIR (Percobaan Asyik & Menarik), contains experiments or experimental designs related to the topic.

5) KELAPA (Kesempatan Menyelesaikan Persoalan), contains questions about the topic to test students' problem solving and critical thinking skills.

6) KAPAL (Kolom Asah Pengetahuan & Keterampilan), contains scientific literacy practice questions that have been made previously at the Constructing Criterion-Referenced Tests step.

d. Initial Design

Initial Design is a step of drafting the textbook based on the analysis results and the determined criterias in the previous stages. The text, modes of representation and the features were arranged systematically. Thus the draft of scientific literacy-based textbook on the beach theme can be produced in the final step of the Design stage

3.3. Develop

Develop stage aims to modify the draft of developed textbook. The initial step in

this stage is Expert Appraisal. Expert Appraisal is a textbook validation technique by several experts to obtain suggestions in improving the draft of developed textbook before being implemented to students. The draft of textbook was validated by 5 experts consisting of 3 lecturers (1 Chemistry, 1 Physics, 1 Biology) and 2 Junior High School science teachers. The validation instrument sheet consists of 34 descriptors

that was categorized into 6 indicators. The indicators include suitability of curriculum, accuracy & update material, mode of representation & linguistic, encouraging thinking skills & curiosity, suitability of student characteristics, and integration. The results of expert validation on scientific literacy-based textbook on the beach theme are presented in the Fig. 3.2.

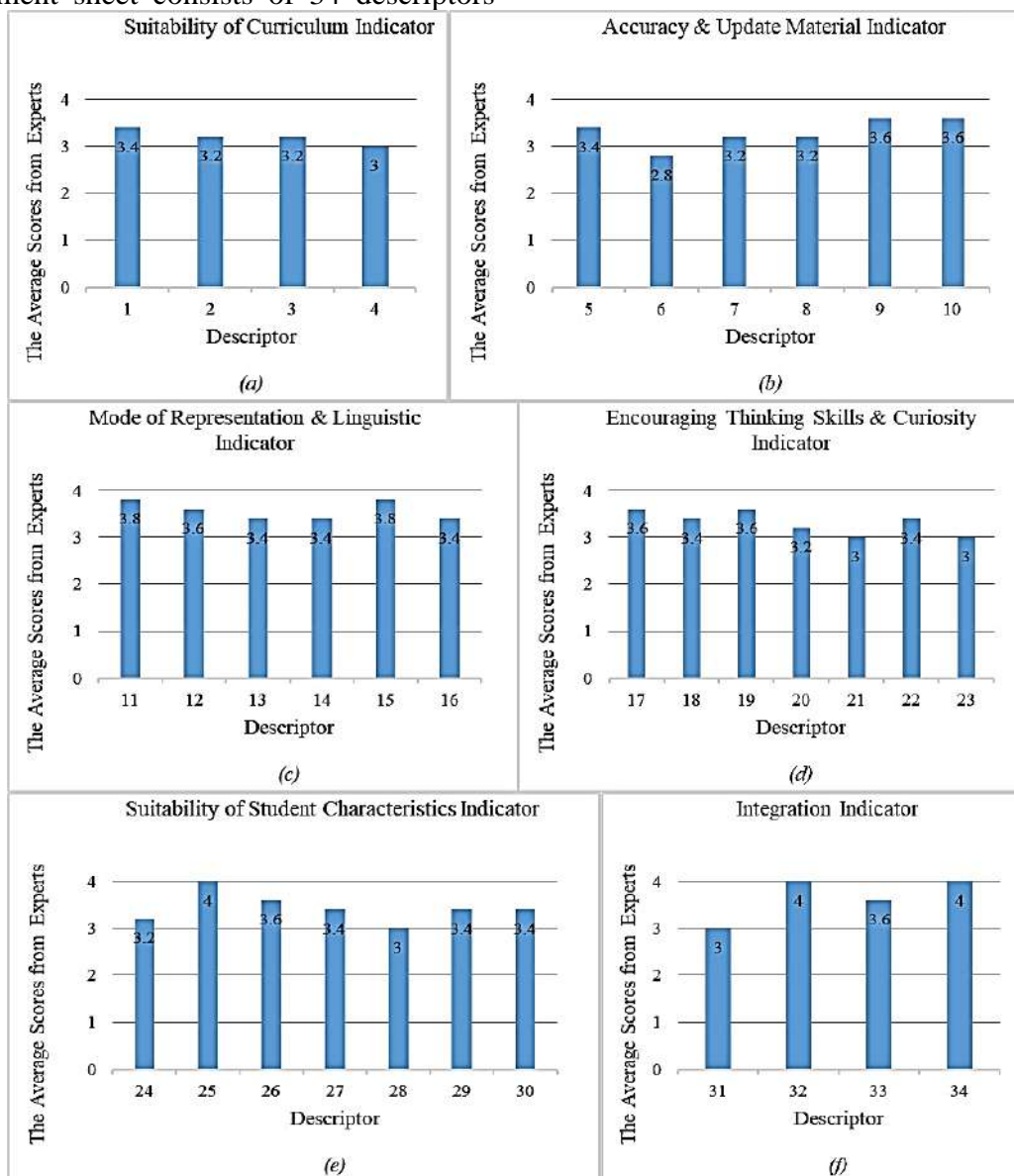


Fig. 3.2 (a) Suitability of Curriculum Indicator; (b) Accuracy & Update Material Indicator; (c) Mode of Representation & Linguistic Indicator; (d) Encouraging Thinking Skills & Curiosity Indicator; (e) Suitability of Student Characteristics Indicator; (f) Integration Indicator

The results of validation textbook on the Suitability of Curriculum Indicator are shown in Fig.3.2 chart (a). The average

score given by the five validators was 3.2. If the maximum score is 4, then the percentage obtained was 80% in very suitable category.

The results revealed that the formulated learning objectives were in accordance with the basic competencies based on science education curriculum of Indonesia. In addition, the formulated scientific literacy aspects were also very suitable with the learning objectives. Descriptor 4 in curriculum suitability indicator, an assessment of suitability between evaluation and learning objectives, obtained the least value among other descriptors. Some validators gave suggestions for adjusting the practice questions (feature KELAPA) with learning objectives on the instructional material. Thereafter it was corrected before being tried out to students based on suggestions given by experts.

Figure 3.2 chart (b) shows descriptors 9 and 10 getting the highest average score on the Accuracy & Update Material Indicator. Descriptor 9 is an assessment of the authenticity and sophistication of content, while descriptor 10 is about integration between concepts with the environmental components and social issues. Descriptor 6 is about misconception getting the lowest score on this indicator. Some validators suggested to review the presented concepts in the textbooks in order to revise misconceptions. These suggestions were received and improved the textbook immediately. Overall, the validation of textbook based on Accuracy & Update Material Indicator resulted the average score 3.3 and the percentage of 82.5% in very suitable category.

Validation in Mode of Representation & Linguistic Indicator produced an average score of 3.57 and the percentage of 89.2% in very suitable category. Figure 3.2 chart (c) shows a relatively high average score on this indicator. The results revealed that the presented concepts in textbooks are

represented very well using various modes of representation, both verbally and visually. In addition, international symbols and units are also displayed consistently and precisely. In terms of linguistic, the developed textbook has the proper scientific language, interesting exposure styles, and quite easily understood language by students.

Figure 3.2 chart (d) shows very good validation results on the Encouraging Thinking Skills & Curiosity Indicator. The descriptors of this indicator aim to explore whether textbook is able to develop students' critical thinking, problem solving and curiosity. The average score was 3.31 and the percentage of 82.9% in very suitable category. The results revealed that the presented material on the textbook is able to develop students' scientific literacy skills because it provides the questions to encourage students' curiosity. Moreover, the description on the textbook presented the phenomena in daily life.

Figure 3.2 charts (e) and (f) show validation results on Suitability of Student Characteristics and Integration Indicators. The average score of Suitability of Student Characteristics Indicator is 3.43 with a percentage of 85.7% in very suitable category. The results revealed that the developed textbook is in accordance with the student characteristics, in terms of the cognitive development of seventh grade junior high school students. Meanwhile, the average score of Integrated Indicator is 3.65 with a percentage of 91.3% in very suitable category. The results revealed that beach theme is very suitable to accommodate Chemistry, Physics and Biology related concepts. Overall, the validation results of scientific literacy-based textbook on the beach theme are shown in Figure 3.3.

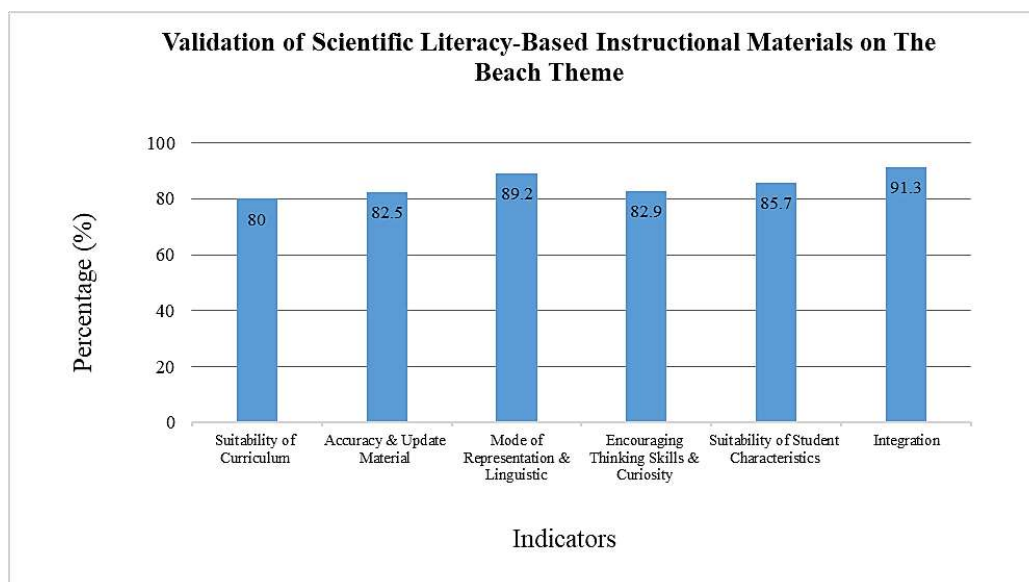


Fig. 3.3 Recapitulation of Validation Results

Figure 3.3 shows that scientific literacy-based instructional material on the beach theme is very suitable for use in science learning. Overall, instructional material fulfills all the quality of instructional material indicators with the average percentage of 85.3% in very suitable or feasible category. Thus, scientific literacy-based instructional material on the beach theme is very feasible to be tested on junior high school students by considering the suggestions given by experts.

CONCLUSION

Based on the results, the developed draft of scientific literacy-based instructional material on the beach theme fulfills all the quality of instructional material indicators. It meets 80% of Suitability of Curriculum Indicator, 82.5% of Accuracy & Update Material Indicator, 89.2% of Mode of Representation & Linguistic Indicator, 82.9% of Encouraging Thinking Skills & Curiosity Indicator, 85.7% of Suitability of Student Characteristics Indicator, and 91.3% of Integration Indicator. Thus, it can be concluded that scientific literacy-based instructional material on the beach theme is very feasible with the percentage of 85.3% to be used by students in learning science.

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Revitalizing Character Education Through Literary Literacy

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Abstract

Education is a conscious effort carried out to create changes in individual learners. These changes are in the form of developing knowledge that has an impact on behavior change in a better direction, namely printing quality human resources from aspects of attitudes related to the character of character. Building character requires a process because the character is not born from birth

The current reality of life is the crisis of national character and individuals in particular. The nation's character crisis is not caused by economic overload or lack. However, it was caused by an invasion of globalization and a lifestyle that eroded moral and religious, social and cultural values in the individuals of Indonesian society who were at odds with the values of the character of the Indonesian nation that should have been maintained. Character values whose relationship with God, oneself, others, environment, and nationality are eroded.

Literacy of literature through reading literature is still reluctant to be done by individuals. In fact, in literary works are full of educational values and character. If we have literary literacy skills, it can revitalize the value of individual characters. To revitalize character education can be done through literacy by reading literary works. The moral message of the literary work submitted by the author contains various character values from the storyline he wrote.

Keywords: *revitalization, character education, literacy, and literature*

INTRODUCTION

Literary work is the result of contemplation by the writer to express ideas or ideas that are poured through a work. The author expresses the idea or idea in a work in the form of literary works in the form of novels, short stories, poems, and dramas based on their own experiences and those of others as well as the imagination of the author. From the stories of characters, character, and behavior in this work there is a moral message that can be used as a reflection of behavior in the face of life.

Revitalizing character education through literary literacy learning at the formal education level can be done from elementary

school to university. The moral message presented in the storyline of literary works can revitalize character education can also educate character education for learners. Literacy culture through reading literary works must be sought so that learners understand and recognize character values from moral messages written by the author.

The current reality of life is the crisis of national character and individuals in particular. The nation's character crisis is not caused by economic overload or lack. However, it was caused by an invasion of globalization and a lifestyle that eroded moral and religious, social and cultural values in Indonesian society

individuals who were at odds with the values of the Indonesian national character that should have been maintained. Character values whose relationship with God, oneself, others, environment, and nationality are eroded. Thus, it is necessary to revitalize character education which is pursued through literary literacy.

LITERATURE REVIEW

A. Character Education

Character education aims to shape the character of individuals who are moral and have noble character. Individual characters can be formed through education. As stated in the theory of convergence that a person's character is influenced by innate or genetic and environmental namely through education. Thus, character education is sought to create good mental or character in the nation's children. Mulyasa (2013: 9) stated, the purpose of character education is to produce full, integrated and balanced character and noble character of students.

Also stated by Aqib (2011: 5), "Character education is efforts that are designed and carried out systematically to help students understand the values of human behavior that are related to God Almighty, self, fellow human beings, environment, and nationality that is manifested in thoughts, attitudes, feelings, words, and actions based on religious norms, law, manners, culture, and customs.

Character that is character, mental characteristics, morals or character. Can be interpreted, someone who has character is a person who has personality, behavior, and good character. Suyadi (2013: 5) argues that character is, "universal values of human behavior which encompass all activities of life, both those related to God, self, fellow human beings and the environment that manifest in behavior, attitudes, feelings, words, actions based on religious norms, law, manners, culture, and customs".

B. Literacy Literature

Understanding of literacy was put forward by Alwasilah (2012: 159), "Literacy for

many years is considered merely a psychological problem, which is related to mental abilities and literacy skills, whereas literacy is a cultural practice that is related to social and political issues". The form of literacy is growing, now there is literacy, media literacy, mathematical literacy and others. The essence of literacy is understanding, covering, using, analyzing, and transforming the text. Literacy activities involve four dimensions, namely language, cognitive, social, and development. In reading activities, literacy functions in a rational way in a social context.

Literary literacy is the ability to understand literature well. "Reading literature is essentially a reading skill with objects of literary works, namely poetry, fiksi, and drama scripts" (Sari, 2016: 1)

Understanding a literary work in the form of knowing the elements of literature both intrinsic and extrinsic from a literary work. By understanding the two elements of the literary work, we can understand the contents of a literary work to be implemented in life.

Revitalizing character education through literary literacy is the ability to understand intrinsic elements in the form of moral messages from a literary work of novels, poetry and drama. As revealed by Hamid (2012: 50), the moral message is, "A concept of goodness (moral concept) that is given or taught to students (young generation and society) to form noble, noble character and behave praiseworthy as found in Pancasila and the 1945 Constitution".

Literacy of literature through reading literature is still reluctant to be done by individuals. In fact, in literary works are full of educational values and character. If we have literary literacy skills, it can revitalize the value of individual characters. To revitalize character education can be done through literacy by reading literary works. The moral message of the literary work submitted by the author contains various character values from the storyline he wrote.

C. Character Values from Literary Works

Literary works are formed from strands of language that are aesthetically valuable, also loaded with character values. Semi (Nurbanah, 2003: 16) suggests about values. Value is a principle regarding something that is considered good and right as something that should be done and carried out by everyone. Character values of a literary work are conveyed by the author through the stories, attitudes, and behavior of the characters so that the reader takes lessons from moral messages that contain mandated character values. The author leads the reader to be more familiar with himself, his God, and foster character values from literary works of a literary work. Below are character values from a literary work.

1. Moral Value

The moral word comes from Latin, namely *mores*: customs, behavior, character, character, morals (Hamid, 2012: 50). The moral value of a literary work reflects the poet's life view of the truth values to be conveyed to the reader including justice, sacrifice, loyalty, honesty, obligation to worship parents, obeying God, and patience. If the moral value is not maintained properly it will cause destruction. This can be seen from the novel, "Asalamualaikum Beijing" by Asma Nadia which is full of moral values.

2. Social Value

Social value is a value that is considered good and right in the community in the form of attitudes and feelings that are widely accepted by the community. The social value of a literary work is a reflection of people's lives that are interpreted. Social values include friendship, loyalty, and love (Nurgiyantoro, 2012: 325). Other social values are empathy, help, and other social attitudes. The novel, entitled "Mimpi Sejuta Dolar" by Alberthine Endah is a novel that contains social values.

Social values are closely related to environment and culture. The shift of national cultural values that should be upheld makes the cause of social decline. Free association, indifference, non-respect and self-determination

is a phenomenon of social value deterioration due to cultural influences.

3. Religious Value

Religious values are closely related to religious values, namely worship, honesty, politeness, generosity, gratitude, trust, sincerity, patience, courage etc. The novel "Notes of the Heart of the Mother" by Asma Nadia, et al. It is one of the novels that contains the moral message of religious values. Religious values are very much related to the perseverance of human *aqidah* or *akhlak* that relates to creators and fellow humans. Religious values contain noble values so that humans do not get lost from negligence, neglect, and forgetfulness. These religious values will fortify us from uncontrollable desires that do not exclude life guidelines that will save the life of the world and the hereafter.

4. Personality Value

Personality is a behavior that is formed from a strong desire to be yourself by putting aside personal egos. People who have good personality will form an attitude of responsibility, self-discipline, not despair, never give up, optimistic, self-introspective, and not selfish. A good person shows a mindful and moral attitude and has a filter in living the reality of life that is loaded with things that will lead to negative behavior. The novel "Ayah" by Andrea Hirata is a novel that contains personality values.

DISCUSSION

Revitalization of character education can be done continuously because the character concerns one's character. Through literary literacy, especially from the moral message of a literary work can educate value education because literary works are loaded with character values, namely moral, social, religious, and personality values.

The current reality of life is the crisis of national character and individuals in particular. The nation's character crisis is not caused by economic overload or lack. However, it was caused by an invasion of globalization

and a lifestyle that eroded moral and religious, social and cultural values in Indonesian society individuals who were at odds with the values of the Indonesian national character that should have been maintained. Character values whose relationship with God, oneself, others, environment, and nationality are eroded.

Literacy of literature through reading literature is still reluctant to be done by individuals. In fact, in literary works are full of educational values and character. If we have literary literacy skills, it can revitalize the value of individual characters. To revitalize character education can be done through literacy by reading literary works. The moral message of the literary work delivered by the author contains various moral messages from the storyline he wrote.

CONCLUSION

Revitalizing character education in individuals can be pursued through literary literacy. By reading literature we can recognize various good character values that can be applied in life. Literary works are formed from strands of language that are aesthetically valuable, also loaded with character values. Value is a principle regarding something that is considered good and right as something that should be done and carried out by everyone.

Character values of a literary work are conveyed by the author through the stories, attitudes, and behavior of the characters so that the reader takes lessons from moral messages that contain mandated character values. The author leads the reader to be more familiar with himself, his God, and foster character values from literary works of a literary work. The character values of literary works, namely

1. Moral Value
2. Social Value
3. Religious Value
4. Personality Value

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The Kera Island Calls : Developing Literacy At Emergency School In The Kera Island, Kupang, East Nusa Tenggara

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Abstract

The Kera island calls is one of the outreach programs held by the action community for East Nusa Tenggara that cooperates with department of elementary education, Muhammadiyah University of Kupang. The targets of Kera island calls are children in the Kera island who are illiterate because there are not any supporting facilities. The Kera island had not had a formal school yet, so the villagers initiated to build an emergency school, so their children were able to get an education although both the facilities and teachers were not too supported. The learning process was conducted in the mosques and there was only one teacher who taught around 80 children in the monkey island. The methods of developing literacy included building Lentera reading house, giving stationeries, creating educational games, watching inspirational movies about education and action for nature. The objective of Kera island calls was participating in solving illiteracy by developing literacy, reducing dropout rate, adoring environment and motivating young generation to freach the better future in education.

Keywords: *Kera Island, Literacy, Emergency School*

INTRODUCTION

Human rights is the basic right which is inherent in human nature and universal as the gift of God Almighty and serve to maintain survival, independence, human development, and society, which should not be ignored, deprived or disturbed by anyone. Article 28 of The 1945 Constitution has explained in detail about human rights which include the right to life, the right to have a family, the right to

communicate and obtain information and the right to education, Soegito (2003: 160). The nature of education is a basic right for every citizen of Indonesia to be able to reflect on it.

The state obligation to provide basic education services is stated in the opening of the 1945 Constitution which states that the State is obliged to protect all nations and all of Indonesia's bloodshed, educate the nation's life, advance the public welfare and participate in carrying out world order based on freedom,

eternal peace, and social justice. The article 31 of the 1945 Constitution more assertive states the rights of citizens and the obligation of the State to provide education to its citizens. Article 31 states (1) Every citizen has the right to education, (2) Every citizen is obliged to attend basic education and the government is obliged to finance it, (3) The state prioritizes the education budget of at least 20% of the State budget and expenditure regional expenditure budget (APBD). The reality is that not all Indonesian citizens have received proper education as their basic rights embodied in the basis of the State.

The Kera Island is one of 550 islands in East Nusa Tenggara. The island which is occupied by approximately 128 households is part of Uiasa Village, Semau District, Kupang Regency, East Nusa Tenggara Province. This 48.17-hectare island is the area of the Kupang Bay Marine Park tourism park based on the Decree of the Minister of Forestry Number 18 / KPTS-II / 1993 dated January 28, 1993, so that there should be no settlement. But the fact is that the Kera Island has long been occupied by Bajo, Sulawesi, fishermen who have inhabited the island since the 1900s.

Therefore, most of the people who work as fishermen do not have a residence identity such as Identity Card, Family Card, Birth Certificate and other residence identities. In fact, the Kera Island does not have public facilities such as schools, health centers, integrated health posts, government and military offices. The only public building is the Barul Bahar Mosque which was established independently by the community and received the assistance of the Indonesian Ulema Council (MUI) of East Nusa Tenggara and was last renovated by the waqf of H. Joko Budi Santoso.

Education is one of the fundamental problems on the island where most of the people work as fishermen. The majority of the people did not finish elementary school and some even had no education at all. Because the Kera Island does not have an official school yet, so people take the initiative to build emergency schools so that their children can experience education even though the facilities and

teaching staff are very apprehensive. The teaching and learning process is temporarily carried out in the mosque building because the madrasah building that was once built was collapsed in the midst of a typhoon. In fact, they only have one volunteer and non-permanent teaching staff who are alumni of the Abu Harairah pesantren who are carrying out their service.

Based on the observations result, the interview with the Kera Island people, said that the conditions of education in the Kera Island is far from expectations. The basic problems of education in the Kera Island include 1). The absence of educational facilities that hinder the effectiveness of teaching and learning activities 2). The Kera Island children experience knowledge gaps with their peers because of the absence of permanent and professional teachers. They only have one volunteer and non-permanent teaching staff who is alumni of the Abu Harairah pesantren and carrying out their service. 3). The lack of textbooks and school equipment such as notebooks, pencils, pens and so on reduces the source of knowledge for students 4). The Learning spirit of The Kera Island children often loses motivation to learn because of the circumstances and parents who are less supportive of them to reach high school. The parents wanted their children to help them find fish in the sea. 5). Environmental awareness is very low.

Seeing the problems above, regarding the low supporting facilities and the enthusiasm of children to continue their education which often weakened. So there needs a program that can increase children's motivation to continue the education so that they can achieve a brighter future at least to complete 9-year compulsory education.

METHOD

Seeing the fairly complex educational problems in the Kera Island, the Action For East Nusa Tenggara as a forum for young Kupang City activists who care about education in remote areas collaborates by cooperating with lecturers from the Department of Elementary Education Muhammadiyah

Universiy of Kupang to design methods effective way to overcome education problems in the Kera Island as follows:

1). One of the programs for developing literacy activities is Establishing a Lantern Reading House. Books are a source of knowledge, so one method to stimulate literacy skills of the Kera Island children is to provide interesting textbooks and reading books so that they have many references to develop insight and knowledge.

2). Gifts for Indonesian children in the form of prizes such as notebooks, school equipment, school bags, teaching aids, and inspiring postcards. It is hoped that giving gifts to the Kera island children will encourage them to be more active and diligent in the school and can improve their learning achievement.

3). Educational games are learning methods that are packaged in interesting games so that children can learn while playing without feeling bored. Each child will be divided into groups and get a companion brother who will arrange the game nets.

4.) Watching Inspirational Films about education is a method to motivate children to continue in reaching their aim within existing limitations. Children will be presented with short films with inspiring stories provided by the volunteers.

5). Action for Nature is a method to teach children to love nature and the environment more. The volunteer brothers will invite children to carry out mutual cooperation activities to clean the environment around the school and encourage them not to litter. invite children to plant trees in locations around the school, and tell them about the importance of preserving the environment.

RESULT AND DISCUSSION

The Kera Island calls is one of the events carried out by the community of Action For East Nusa Tenggara. This activity was held for two days and nights on June 4-5 2018 in the Kera Island. This activity was held in collaboration with the Action Community for East Nusa Tenggara with the Garuda Eye Community and supported by the Book Community For East Nusa Tenggara,

TAGANA, Kupang Regency SM3T and Grapari Telkomsel Kupang and The Department of Elementary Education Muhammadiyah University of Kupang, The Kera Island Calls, consisting of 5 activities, namely Establishing Rumah Baca Lentera , Providing school equipment, holding educational games, watching inspirational films about education and action for nature.

The Lantern Reading House activity was the first activity carried out in a series of literacy development activities entitled "The Kera Island Calls". This activity is in the form of making a reading house that aims to improve the literacy skills of the kera island children. The making of this reading house is supported by the Buku Community For East Nusa Tenggara. The books brought were obtained from donations in the form of money and funds. The book that filled this reading house totaled 272 books with 185 titles. There are several types of books, including school textbooks, worksheet books, children's reading books, illustrated storybooks, encyclopedias, and children's magazines. It is expected that with this reading house, children will gain access to learning media so that they can support the learning process in school and children's reading interest in the Kera islands. The Lantern Reading House is located at the back of the Darul Bahar Mosque building which is the only public building in the Kera Island. The Lentera Reading House was established not only to be used as a small library for children but more than that where reading house can be a place to design a better future of the Kera island children.



Fig. 1. PIC Action for East Nusa Tenggara Together with Department of Elementary

Education lecturers gave a briefing on the importance of reading culture

Indonesian Gift for Children Program is a gift delivery program for Indonesian children in the 3T area (Frontier, Outermost, and Disadvantaged) and other areas that are needed to inspire and encourage children in the 3T area to pursue their aspirations and give appreciation for their enthusiasm they are studying. Gift giving in the form of books, school equipment, props, school bags, and inspiring postcards. Gifts for Indonesian Children is a collaborative program between Action for East Nusa Tenggara and Mata Garuda as LPDP scholarship Alumni Association who are committed to taking a role in filling out uneven access to education.

One of the most festive and exciting activities in the series of activities "The Kera Island Calls" is an educational game. The volunteers consisting of various professions invite children to play while learning. There are many games such as composing a picture puzzle of national figures, compiling puzzle maps of Indonesia, regional clothes puzzles and traditional houses of each province, coloring the image of the profession. Besides that children are invited to, make a tree of hope. They were asked to write down their names and ideas, then put them in a miniature tree that was affixed to the classroom wall. Educational games are learning methods that are packaged in interesting games so that children can learn while playing without feeling bored. The children looked so enthusiastic about completing educational games which were guided directly by volunteer brothers and sisters. Of course, this Educational Game is a game that aims to stimulate the minds of children to practice early in thinking and learning to understand, analyze, observe various types and forms of several types of educational games that exist.



Fig. 2. The Kera Island Calls Volunteers Together with the Department of Elementary Education Lecturers Providing Educational Games

At night, all residents and children were entertained with an in-depth film screening in the form of several short films and a long film. The film that was played is short videos that tell about the importance of studying, hard work, enthusiasm for achieving goals in limitations, a strength of curiosity, and various short videos that can enhance the audience's delight. In each final session, the video is always interspersed with discussions about the video being played. The volunteer brothers in charge of explaining the meaning of the video occasionally ask the audience to help explain the meaning of the innovative video. People who attended the interactive film screenings were so enthusiastic about answering the questions given by volunteer friends, moreover, there were door prizes given to audiences who dared to expose the meaning of the film and answer the questions raised about inspirational films. At the end of the event, it was continued by watching the Danias film, which is one of the inspirational films by the nation's children who told about education in Papua.



Fig. 3. Volunteers were acting for nature with the children of the Kera Island

The last activity was Action for Nature where volunteer brothers taught the children of the Kera Island to love nature and the environment more. The volunteer brothers invited the children to carry out mutual cooperation activities to clean the environment around the mosque and residents' houses and encourage them to get used to not littering. At the end of the activity, the children are invited to plant trees in locations around the school and tell them about the importance of preserving the environment. With the Kera Island Calls program is expected to help develop literacy skills in emergency schools in the Kera Islands. It is hoped that it can increase education participation, minimize the rate of drop out, eradicate illiteracy, and educate children to love nature more.

CONCLUSION

Based on the results of literacy development in emergency schools that have been implemented, the conclusions of the program are as follows: in general, the results of the development of literacy carried out by the Community Action For East Nusa Tenggara were effective. This program provides benefits for emergency school children in the Kera Island regarding the importance of reading and writing. The students were very enthusiastic and happy to get a variety of new experiences such as educational games, gift giving in the form of school equipment, watching films about education, having a reading house, and cleaning the environment.

The suggestions need to be cooperation with the government to overcome education problems, especially which are related to infrastructure and professional teaching staff who support teaching and learning activities to be more effective. Evaluate the implementation of literacy development programs that have been carried out so that they can find out issues that reduce the effectiveness of activities. So that it can create more optimal and sustainable program that has a greater impact on emergency school children in the Kera islands.

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Integration of Science Literacy and Al-Quran: Analysis on Students' Books in Grade IV Elementary School Theme 9 "Kayanya Negeriku"

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Abstract

Literacy is a life necessity of advanced society, in the midst of the rapid development of technology and information. TIMSS become reference for measuring students' literacy abilities by various countries in the world. Therefore, education in Indonesia accustoms students to building a culture of literacy through reading (iqra '), one of which is presented in the 2013 student curriculum book. Various studies have been conducted to improve the mandatory handbook used by most students. However, the research has not been integrated with Islamic values through the Qur'an needed in learning in Islamic schools. This study aims to determine (1) the content of the material in terms of scientific literacy in the book; (2) the application of the scientific approach in terms of scientific literacy in books; and (3) include the contents of Islamic values on the content of the material presented in the book. The research method uses descriptive analysis based on literature studies with a qualitative approach then drawn inductively. Data collection instruments use checklist sheets based on variable indicator suitability. The book analyzed was the latest 2016 revised student book for grade IV elementary school theme 9 "Kayanya Negeriku" as the research sample. These findings can be used as consideration in developing learning planning in Islamic elementary schools.

Keywords: *literacy, Qur'an, books*

INTRODUCTION

The 2013 curriculum for elementary schools or Islamic schools uses an integrated thematic approach from class I to class VI which includes attitudes, knowledge, and skills. The integration of the learning process that covers all three things is in accordance with Ki Hajar Dewantara's statement, which states that "Education is an effort to advance the character, mind and body of the child". From the 2013 curriculum and Ki Hajar Dewantara's statement certainly in accordance with Islamic values aimed at forming human

beings with morality to become the generation of *khaira ummah*.

Thematic learning shows the closeness of the lives of students and their environment, so that students easily learn the material, given that elementary school students stage operational thinking is concrete. This is part of a contextual approach. This approach can provide meaningful experiences for students to meet needs, attract students' interests and talents so that it helps solve problems and demands for future work. Therefore, to implement learning requires textbooks for students as a mandatory reference for reading

and information sources in order to support the development of insights in elementary school. The book is a student book that is owned by each student and each book is a theme that contains several sub-themes with each sub-theme containing 6 lessons (1 week), one learning contains several subjects that are implied or fused in some material and one sub-theme. The book needs to be analyzed to see learning activities with a scientific approach and the content of the material adapted to core competencies and basic competencies and the scope of their literacy. Literacy that is the focus is scientific literacy. This is due to the 2015 Trends in International Mathematics and Science Study (TIMSS) which was attended by 4th grade Indonesian elementary school students with 45 ranking from 48 countries.

The results of scientific literacy were warmly welcomed by the Ministry of Education and Culture for schools from elementary school to secondary schools and for various agencies to organize literacy movements, commonly called SLM (School Literacy Movement) for schools. This movement builds a comprehensive and sustainable ability to use information intelligently in the midst of technological developments and the application of the 2013 curriculum. However, the focus is science literacy which is part of the SLM.

From these results, there is certainly a need for an analysis to find out the content of the TIMSS science test topic content, the content aspect is contained in the elementary curriculum 2013 student books (conformity with scope, core competencies, basic competencies, and graduate competency standards). The analysis activity is in line with the research conducted by Hayati, Ai Rahayu (2014) and Nurhayati, Yeti (2014) who analyzed thematic books with the theme 3 Care for Living Beings in grade IV 2013 Curriculum in terms of aspects of presenting scientific literacy. The two results of the study show that the books analyzed show science as the most visible body of science rather than

science as a way of investigating, science as a way of thinking, and the interaction of technological science and society.

In addition, the learning activities written in the book need to be analyzed to determine the suitability of the contextual scientific approach in the 2013 elementary school curriculum student book on cognitive aspects. This scientific approach needs to be taught to students so that the purpose of learning science can be done well. Because in essence science is a process and product. Science is open only as a collection of knowledge that must be memorized, but is a search process, investigation with process skills such as scientists. This is consistent with the research conducted by Amos et al (2012), who found that education in Singapore is still shaped by the need to prepare students for high test scores, so that opportunities for developing creative potential and constructing ideas of higher knowledge are hindered by learning memorization.

In addition, as Muslims who are guided by the Koran, it is necessary to study Islamic values the Qur'an. And it is from Allah who gives the senses according to their respective functions in learning and seeking knowledge as in Al-Nahl 16:78, which explains that Allah expelled humans from the mother's stomach in a state of ignorance, and Allah gave hearing, vision, and heart to be grateful.

Waqar-un-Nisa (2011), that providing Islamic knowledge and textbooks must also be written in the perspective of Islamic values. Islamic values intended are the formation of personality through habituation so that students develop in a balanced manner.

From the study, researchers wanted to analyze the content of the material adapted to the curriculum and the application of the scientific approach translated from the teacher's guidebook in terms of TIMSS scientific literacy and Islamic values exemplary in elementary school grade IV books.

METHOD

Qualitative approach with descriptive analysis of the contents of the book. Descriptive analysis to find out the characteristics of the content of science materials in the thematic book integrated theme 9 "Like My Country" fourth grade elementary school curriculum 2013 printed 3rd in 2016 with 4 sub-themes, including: 1) wealth of energy sources in Indonesia, 2) utilization of natural resources in Indonesia, 3) preservation of Indonesia's natural resources, and 4) my work is my achievement.

Basic competencies: 3.5 Identify various energy sources, changes in energy forms, and alternative energy sources (wind, water, sun, geothermal, organic fuel, and nuclear) in everyday life and 4.5 Presents reports on observations and searches for information about various changes in the form of energy. Information in the form of data with purposive sampling techniques. The instruments are a check list sheet that is reviewed from the Koran, KI 1 (religious), KI 2 (scientific attitude), KI 3 (Permendikbud No. 21 of 2016 concerning content standards), and KI 4 (meaningful learning experience skills).

RESULT AND DISCUSSION

In fourth grade elementary school science learning, there are 2 meetings / learning (L) for each sub-theme. The reading contained in the book has implemented the school literacy movement at the learning stage by including stories that contain material in the reading. The purpose of the school literacy movement at this stage of learning is to maintain reading interest, improve literacy skills through strategies for reading enrichment books and textbooks.

1. Results of Analysis of Science Content with Content Domains on Science Literacy

The results of the research obtained are:

Learning (L)		Subthema			
		1	2	3	4
		Wealth of Energy Sources in Indonesia	Utilization of Natural Property in Indonesia	Preservation of Indonesian Natural Resources	My Project Based Learning
L1	Readings and activities	"Water and Electricity" contains material and energy	The use of energy sources contains interactions with the environment and changes in energy	"Utilization of Nature by Humans" and "Impacts of Environmental Changes Caused by Humans on Ecosystem Balance" and posters with energy saving topics in everyday life	Potato experiments that can produce electrical energy and planting media by utilizing bottles
	Content	<i>Physical science</i>	<i>life science and physical science</i>	<i>life science and physical science</i>	<i>physical science and life science</i>
L3	Readings and activities	Energy sources that can be updated and which cannot be updated	Energy types of energy changes as well as examples in everyday life and solar panels as solar power plants.	Learning 3 contains alternative energy. Alternative energy containing sun, wind, water, geothermal energy, seawater waves, bio-fuels, and cow dung is an energy source. Alternative energy is developed and is starting to attract human interest because it can be used as an alternative source of energy from mining energy resources (for example: petroleum and coal) which are non-renewable natural resources.	Create energy-saving posters with the aim of increasing students' knowledge about efforts to conserve natural resources
	Content	<i>earth science</i>	<i>physical science</i>	<i>Physical science and earth science</i>	<i>earth science</i>

2. Results of Scientific Approach Analysis with Cognitive Domain on Science Literacy

The researcher analyzed the learning activities in the teacher's book by matching the student book.

a. Subtema 1 Wealth of Energy Sources in Indonesia

□ Learning 1

- 1) Reading reading about the environment is a category of knowledge (remembering)
- 2) Making mind maps is a category of application (associating)
- 3) Observing images of the natural environment is a category of knowledge (describing)
- 4) Reading text and observing images of water and electricity energy is a category of knowledge (describing)
- 5) Discussing water and electricity energy is a category of reasoning (analyzing)

□ Learning 2

- 1) Conducting interviews about the energy sources around is a category of application (interpreting information)
- 2) Identifying energy sources around them is a

category of application (linking)

b. Subtema 2 Utilization of Natural Property in Indonesia

Learning 1

- a) Reading reading about natural resources is a category of knowledge (remembering)
- b) Making mind maps is an application category (associating)
- c) Observing the image of the benefits of water as a category of knowledge (describing)
- d) Discussing about the use of natural resources is a category of reasoning (analyzing)
- e) Interviews about natural resources are categories of application (interpreting information)

Learning 2

- a) Conducting interviews is a category of application (interpreting information)
- b) Reading about energy changes and their use around them is a category of knowledge (describing)

c. Subtema 3 Preservation of Indonesian Natural Resources

Learning 1

- a) Reading reading about natural resources that have the potential to become alternative energy sources is a category of knowledge (describing)
- b) Making mind maps is an application category (associating)
- c) Observing the image of the preservation of the biological wealth of animals and plants is a category of knowledge (describing)
- d) Conducting interviews about the preservation of the biological wealth of animals and plants is a category of application (interpreting information)

Learning 2

- a) Conducting interviews about the preservation of the natural environment is a category of application (interpreting information)
- b) Observe behavioral images that reflect environmental conservation efforts and that damage the natural environment are categories

of knowledge (describe)

d. Subtema 4 My Work Based Learning (Project Based Learning)

Subtema 4 contains project-based activities, but the mapping of learning activities and competencies developed by the teacher's book for a week is not in accordance with the contents of the description or explanation of the teacher's books and student books. The explanation is as follows.

Learning 1

In the learning activity the experiment consisted of making electricity from potatoes. This activity includes the cognitive domain which is reasoning (drawing conclusions).

Learning 2

In the material discussed about preserving the natural environment, by making planting media by utilizing used materials to preserve the natural environment through farming. This activity is included in the cognitive domain that applies (using models).

Learning 3

In the material discussed about the preservation of natural resources, by making a poster of efforts to preserve natural resources. This activity is included in the cognitive domain of reasoning (designing / designing).

3. Results of Analysis of the Content of Science with Islamic Values in the Qur'an

The research results obtained are almost all the material in learning can be linked to the Qur'an, except about the development of science and technology related to the products of the latest energy changes. The results of the book analysis are as follows.

A. Subtema 1 Wealth of Energy Sources in Indonesia

Learning 1, contains:

- a. Planting an environmentally caring attitude to use and maintain water sources starts with

common sense (Az-Zumar 39:21)

b. Readings of "Water and Electricity Energy Sources" and Hydroelectric Power Utilization (Fussilat 41:39)

Learning 2, contains:

a. Use of materials from nature to make a house but do not cause damage to the earth (Al-A'raf 7:74).

b. On reading, containing energy sources. However, in energy sources that cannot be renewed, the analysis of this research is limited to the development of simple technology in the form of copper and iron which has great strength (Al-Kahf 18:96 and Al-Hadid 57:25). In renewable energy sources, water through the water cycle is at Al-Mu'minin 23:18 and the sun produces light and heat energy at An-Naba ': 13 which has benefits for plants-photosynthesis, humans, animals and nature .

c. In material changes to electrical energy into light, for example lights. The lamp is associated with a fire that illuminates the surroundings (light) at Al-Baqarah 2:17.

B. Subtema 2 Utilization of Natural Property in Indonesia

Learning 1, contains:

a. Wind Energy

In the material there is a picture of children playing kites and people cooking satay. The letter related to wind energy is Yunus 10:22, Al-Anbiya '21:18, Al-Furqan 25:48, and Ar-Rum 30:46.

b. Solar energy

In the material there is a picture of men harvesting sea salt. Letters related to solar energy are Noah 71:16 and An-Naba '78:13.

c. Motion Energy

In the material there is a picture of a woman using a blender. Letters related to motion energy, namely Al-Baqarah 2: 164.

Learning 2 contains,

a. Sound energy

In the material there is a picture of a man hitting a gong. Letters related to sound energy, namely

Al-An'am 6:73 and Al-Kahf 18:99.

b. There are activities to make otok-otok boats, steamship toys

These activities can be linked to the story of Noah. about the ship he made to ride with his people so that he survived (Yunus 10:73).

C. Subtema 3 Preservation of Indonesian Natural Resources

Learning 1, contains:

a. In the material explained that water has many benefits for human life (Al-Baqarah 2: 164 and Al-Mu'minin 23: 19-21)

b. In the reading explained the existence of a water cycle (At-Tariq 86: 11,12), the wind brings rain, (Al-A'raf 7:57), drought (Jonah 10:24), and efforts to save rainwater by planting tree (Al-Hijr 15:22) because tree roots can b.stretch water (Ibrahim 14:24).

Learning 2, contains:

a. Air

In reading, the water is heavy on the river for electricity generation. Creation of rivers is found in Ar-Ra'd 13: 3 and An-Nahl 16:15.

b. Sea water waves

Sea waves when breaking down the coast produce a lot of energy (Al-Jasiyah 45:12)

c. Bio fuel

In the reading, there are several examples of bio-fuels that come from plants (seed plants containing oil: sunflower, castor oil, palm oil, and soybeans) for biodiesel and animals (cow dung) for biogas. If in the Qur'an it is used to produce energy in the form of lighting fuels, namely olive oil (An-Nur 24:25) and green wood (Yasin 36:80).

D. Subtema 4 My Work Achievement (Project Based Learning)

Contains the development of science and technology from alternative energy with innovative inventions.

Learning 1

The experiment makes electricity from potatoes As previously explained, what is on earth for humans, including potatoes, if humans want to

think can be used for the benefit of the people and humans must be grateful for what is obtained.

Learning 2

Utilizing while conserving natural resources
Use used plastic bottles for planting media using vegetable seeds

- a. For mustard, found in Luqman 31:16
- b. Planting, found in Abasa: 24-32
- c. Mixing soil, sand, and fertilizer, is at Al-A'raf 7:58
- d. Watering with water is found in Al-Baqarah 2: 265

DISCUSSION

1. Discussion of Science Content with Content Domains in Science Literacy

In the student book theme 9, class IV is an integrated thematic book that is used as the handle of even semester student learning. To sort out the science content, of course, it is necessary to read the basic competency mapping in the teacher's book that is adjusted to the subjects and each lesson. In the energy material all categories in the content domain exist, namely physical science, earth science, and life science. This content domain has been adapted to science literacy for grade 4 elementary school students based on TIMSS criteria. However, the proportions are different. From the results of the calculation as follows,

- a. Subtema 1 there are physical science (1) and earth science (1)
- b. Subtema 2 is life science (1) and physical science (2)
- c. Subtema 3 is life science (1), physical science (2), and earth science (2)
- d. Subtema 4 is life science (1), physical science (1), and earth science (1)

If life science calculations are carried out there are 3, earth science exists 4, and physical science exists 6. So that it can be seen that the content of the science material in the theme book 9 "Kayanya Negeriku" is more likely to

be physical science. Science learning focuses on learning 1 and 3 for each sub-theme.

2. Discussion of the Scientific Approach (Learning Activities) with the Cognitive Domain in Science Literacy

The results of the study were by analyzing the 2013 grade IV elementary school curriculum book theme 9 "Kayanya Negeriku" by identifying student books and teacher books (especially learning activities). The cognitive domain contains aspects of knowledge, application, and reasoning. This cognitive domain has been adapted to science literacy for grade 4 elementary school students based on TIMSS criteria. However, the proportions are different. From the results of the calculation as follows,

- a. Subtema 1 has knowledge (3), application (3), and reasoning (1)
- b. Subtema 2 there is knowledge (3), application (3), and reasoning (1)
- c. Subtema 3 there is knowledge (3), application (3), and reasoning (0)
- d. Subtema 4 has knowledge (0), application (1), and reasoning (2)

If there is 9 knowledge calculations, there are 10 applications, and reasoning is 4. So that it can be seen that the cognitive domain in the grade IV elementary school curriculum 2013 book theme 9 "Kayanya Negeriku" for knowledge and application is relatively the same.

3. Discussion of the Content of Science with Islamic Values in the Qur'an

The results of the study found that in the natural sciences material in class IV the theme 9 can be studied in the Qur'an. The Qur'an as a guideline for human life as a caliph to exploit and manage nature which is the creation of Allah. In natural management, humans play an important role so that they can develop science and technology through human mindset, attitude and behavior. Therefore, hopefully people can think wiser, have gratitude, and can improve their faith.

CONCLUSION

The conclusions of this study are:

1. From analyzing the content of science materials in books with content domains on scientific literacy containing material about various energy sources, changing forms of energy, and alternative energy sources in daily life with the most starting sequence, namely physical science, earth science, and life science .
2. From the analysis of scientific approaches (learning activities) in books with cognitive domains on scientific literacy with activities reading reading, making mind maps, conducting interviews, conducting experiments, and making posters with the same results of knowledge and application, then below is reasoning.
3. From analyzing the content of Science material in books with Islamic values (Qur'an) it can be concluded that humans as caliphs thus need a mindset, attitude, and behavior to make innovations in the development of science and technology, grateful for the blessings and gifts that God gives; and believe that what exists and happens at the will of God.

Suggestion:

1. Need more in-depth analysis of the cognitive domain that is associated with the scientific approach to learning activities.
2. Need an analysis that raises scientific literacy aspects that include science as a body of science, science as a way to investigate, science as a way of thinking, and the interaction of technological science and society
3. It needs more in-depth analysis of the interpretation of the Koran to be linked to the material of natural science
4. This research enriches the insights of learning in integrated Islamic schools

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Relationship of Work Motivation and Compensation with Performance of Private School Teachers in North Minahasa District

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Abstract

This study aims to analyze and describe work motivation, compensation and performance of state elementary school teachers using the survey method - a sample of 114 teachers from a population of 1142 public elementary school teachers spread across North Minahasa district. The instrument used is a questionnaire in the form of a Likert scale. Data collected from work motivation variable (X1) 30 items, compensation variable (X2) 25 items, and teacher performance variable (Y) 30 items, were analyzed in SPSS version 21. The collected data were tested for analysis prerequisites to find out normal and linear distributed data data between the two independent variables, then tested the hypothesis by using inferential statistics. The results of data analysis, obtained conclusions: (1) there is a positive relationship between work motivation and teacher performance; (2) there is a positive relationship between work motivation and teacher performance; (3) there is a positive relationship between work motivation and compensation together with the performance of state elementary school teachers in North Minahasa Regency. It is recommended that: (1) It is necessary to formulate a pattern for developing teacher performance in carrying out the main tasks and functions that refer to the teacher's work motivation; (2) Strategies to provide innovative compensation that are productive in the direction of improving teacher performance are needed to achieve learning objectives; (3) For teachers there needs to be an internalized awareness to spur and trigger teacher performance as an implementation of work motivation and compensation obtained.

Keywords : *Work Motivation, Compensation, Performance Of Private School Teachers*

INTRODUCTION

The teacher is one component that greatly determines the education process. It is said so because the teacher is the spearhead that deals directly with students as the subject and object of learning. It is said as the subject of learning because students are the target of the learning process, while it is said to be an object of learning because students are carrying out learning activities in the learning process.

Teachers in carrying out their duties and roles as education personnel are required to have excellence in terms of improving the content, processes and results of education that are marked by an increase in student academic achievement can illustrate the occurrence of an

increase in education services in schools. This condition clearly illustrates the increase in teacher performance. The teacher's performance in question is the result of work or the achievement of the work of the teacher related to the implementation of the main tasks and functions as education staff in the school.

Teachers in carrying out their duties as educators, instructors, and trainers for students are expected to contribute meaningfully to the achievement of predetermined educational goals, however, one's performance is much influenced by several factors. With regard to this (Gibson in Sumiati, 2009: 135), more comprehensively expressed the existence of three groups of variables as factors that can

affect the performance and potential of individuals in the organization, namely:

First, individual variables include (a) ability / skills, (b) family background, social level, experience. Second, organizational variables, which include (a) resources, (b) leadership, (c) compensation or compensation, (d) structure, work design. Third, psychological variables, including (a) mental / intellectual, (b) perception, (c) attitude, (d) personality, (e) learning, and (f) motivation.

This view implies that teacher performance problems are also determined by individual factors, institutional or organizational factors, and psychological factors in carrying out learning tasks.

This teacher's performance was observed in public elementary schools in North Minahasa Regency. Conceptually superior teacher performance can produce students' academic achievement which continues to increase both in terms of increasing achievement of minimum completeness criteria (KKM), increasing student academic achievement which is marked by reduced number of non-graduating students, reduced number of students who do not graduate, and increased achievement students in various curricular and non-curricular activities.

The reality in the field, the performance of state elementary school teachers in North Minahasa Regency was found to be a tendency for teacher performance to decline. Because teacher performance was still low, teacher work motivation was still low, compensation for teachers was still low. This was marked by the presence of 16 students who did not go up to the elementary school in Wori and Likupang Timur sub-districts, Dimembe and Kema Subdistricts, a total of 7 students who dropped out of school, in a number of schools in the same area (UPTD Annual Lap, Ministry of Education, 2014), and some students did not achieve the minimum completeness criteria in the process of learning activities in the classroom.

This problem is suspected because the teacher's work motivation is declining. This can

be characterized by teachers tending to be late to school, teachers teaching subject matter tend to be incomplete, decreasing efforts - teacher efforts to overcome student learning difficulties, and teachers are more passive and resigned to various constraints educational infrastructure and facilities. This declining teacher performance is also thought to have a relationship with work motivation and is thought to have a relationship to provide compensation for teachers.

Giving compensation for teachers such as giving awards in the form of giving additional income to the excess hours of teaching or giving enrichment to students in the class or in the form of promotion of achievements. In reality, teachers tend to receive less attention related to compensation. This is indicated by the lack of funds to assist students in various children's educational activities both extracurricular activities, as well as educational activities involving teachers, such as teacher meetings at the rayon level, training activities and workshops. Because of this compensation, the inadequate welfare of teachers has a relationship with the quality of teachers in the education process.

METHOD

This approach uses a quantitative approach while the method used in this study is a correlational descriptive analytical method, which is to describe the relationship between independent or independent variables on dependent / dependent variables and research data analyzed using parametric statistics, namely to find out the relationship pattern or contribution independent variable on the dependent variable. The members (units) of the population chosen by the researchers were all state elementary school teachers in North Minahasa District who conducted 2014/2015 school year teaching activities for 1142 people. While the sample was 114 elementary school teachers in North Minahasa Regency.

RESULT

1. Work Motivation Score (X1)

Data on work motivation (X1) was obtained from the results of filling out questionnaires with a Likert model measurement scale of 30 items which were filled by State Elementary School teachers in North Minahasa Regency distributed to 114 respondents.

Based on research data for work motivation scores that have a theoretical score range between 30–150, then the results of the study obtained a range of scores between 80–126, with the total score ($\sum X1$) = 11920.98, average price (X1) = 104.57, standard deviation ($SDx1$) = 10,562, with the lowest score range of 80 and the highest score of 126. For details, the following table presents a recapitulation of numbers based on basic statistical calculations.

2. Compensation Score (X2)

Data about giving compensation (X2) was obtained from the results of filling out the questionnaire with a Likert model measurement scale of 27 items which were filled by teachers of Public Elementary Schools in North Minahasa Regency who distributed to 114 respondents.

Based on research data for compensation scores that have a theoretical score range between 27–135, then the results of the study obtained a range of scores between 75–119, with the total score ($\sum X2$) = 10996.44, average price (X2) = 96.46, standard deviation ($SDx2$) = 10,101, with the lowest score range of 75 and the highest score of 119. For details, the following table is presented with a summary of numbers based on basic statistical calculations.

3. Teacher Performance Score (Y)

Data on the performance of teachers who are given variable symbols (Y) are obtained from the results of filling out questionnaires with a Likert model measurement scale as much as 30 items filled in by State Primary School teachers in North Minahasa Regency distributed to 114 respondents.

Based on research data for teacher performance scores that have a theoretical score range between 30–150, then the results of the study obtained a range of scores between 84–130, with the total score ($\sum Y$) = 12534.30, average price (Y) = 109.95, standard deviation (SDy) = 10,835, with the lowest score range of 84 and the highest score of 130. To be clear, the following table presents a recapitulation of numbers based on basic statistical calculations.

Testing Requirements Analysis

The testing of the analysis requirements must be fulfilled so that the analysis for prediction purposes and for the purposes of hypothesis testing can be continued and fulfilled the requirements. The conditions referred to in testing correlation analysis are (1) normality test requirements; and (2) linearity test.

1. Data Normality Test

Normality test using the One-Sample Kolmogorov-Smirnov Test method is one of the normality tests to test whether the sample comes from a population that is normally distributed and data is normally distributed. The data analyzed were work motivation data (X1), compensation data (X2) and teacher performance data (Y) on the teachers SDN in North Minahasa Regency.

Based on the results of the analysis of the SPSS 21 series program, the One-Sample Kolmogorov-Smirnov Test normality test on the work motivation score, compensation and teacher performance data obtained the Asymp value. Sig (2-tailed) is greater than the price of alpha (α) 0.05 or in other words the value of $Asymp.Sig > 0.05$. Thus the distribution of research data on each variable is normal.

2. Variable Linearity Test

The results of the linearity test are said to be linear pattern if the significant value (Sig) is smaller than alpha (α) = 0.05. The results of the linearity of work motivation and teacher performance can be seen in the following table:

Based on table 4.8 significant value on the linearity of work motivation variables with

teacher performance of ($\text{Sig} = 0,000$). Because the Sig value is <0.05 so the pattern of the relationship between work motivation variables and teacher performance has a linear relationship.

Testing of Research Hypotheses

After the data has been known to be normally distributed and has a linear relationship, the research hypothesis test can be continued. Testing the hypothesis of this study using a simple correlation test and multiple correlation test using multiple correlation program test computer SPSS for Windows version 21.

1. Results of Relationship Analysis of Work Motivation (X1) with Teacher Performance (Y)

To test the relationship between work motivation (X1) and teacher performance (Y), it can be done with the following steps:

a. Formulation of the hypothesis

Ho: $rx1y = 0$ (There is no relationship between variables X1 and Y)

Ha: $rx1y > 0$ (There is a relationship between variables X1 and Y)

b. Real level: $\alpha = 0.05$

c. Test statistics: Pearson Product Moment Correlation

d. Testing criteria;

Accept Ho if $r_{ob} < r_{tab} (\alpha; n)$

e. Data Computing;

f. Interpretation of Analysis of Relationship X1 with Y

The calculation results obtained $rx1y$ of observation of $r_{ob} = 0.827$ when compared with r table ($n, (114); \alpha = 0.05$) obtained for $r_{tab} = 0.176$. From these results indicate that the r_{ob} value = $0.827 >$ the value of $r_{tab} = 0.176$ means that Ho is rejected and accepted Ha which states that there is a significant relationship between work motivation (X1) and teacher performance (Y) in teachers of District Primary Schools in the District North Minahasa.

2. Results of Relationship Analysis of Compensation (X2) with Teacher Performance (Y)

To test the relationship between compensation (X2) and teacher performance (Y), it can be done with the following steps:

a. Formulation of the hypothesis

a. Ho: $rx2y = 0$ (There is no relationship between variable X2 and Y)

b. Ha: $rx2y > 0$ (There is a relationship between variable X2 and Y)

b. Real level: $\alpha = 0.05$

c. Test statistics: Pearson Product Moment Correlation

d. Testing criteria;

Accept Ho if $r_{ob} < r_{tab} (\alpha; n)$

e. Data Computing;

The calculation results obtained $rx2y$ observations of $r_{ob} = 0.814$ when compared with r table ($n, (114); \alpha = 0.05$) obtained for $r_{tab} = 0.176$. From these results indicate that the r_{ob} value = $0.814 >$ the value of $r_{tab} = 0.176$ means that Ho is rejected and accepted Ha which states that there is a significant relationship between compensation (X2) and teacher performance (Y) in Public Elementary School teachers in Minahasa Regency North.

3. Results of the Relationship Analysis of Work Motivation (X1) and Compensation (X2) Together with Teacher Performance (Y)

To examine the relationship between work motivation (X1) and compensation (X2) together with teacher performance (Y), it can be done with the following steps;

a. Formulation of the hypothesis

Ho: $rx1x2y = 0$ (There is no relationship between variables X1 and X2 together with Y)

Ha: $rx1x2y > 0$ (There is a relationship between variables X1 and X2 together with Y)

b. Real level: $\alpha = 0.05$

c. Test statistics: Multiple correlation

d. Testing criteria;

Accept Ho if $r_{ob} < r_{tab} (\alpha; n)$

e. Data Computing;

The calculation results obtained $rx1x2y$ observations of $r_{ob} = 0.856$ when compared with r table ($n, (114); \alpha = 0.05$) obtained for

$r_{tab} = 0.176$. From these results indicate that $r_{ob} \text{ value} = 0.856 > r_{tab} = 0.176$ means that H_0 is rejected and accepted H_a which states that there is a significant relationship between work motivation (X1) and compensation (X2) together with teacher performance (Y) to state elementary school teachers in North Minahasa Regency. Likewise the performance of teachers in State Primary Schools in North Minahasa Regency.

DISCUSSION

1. Relationship between Work Motivation and Teacher Performance

Based on the results of the analysis stating that there is a positive and significant relationship between work motivation (X1) and teacher performance (Y) on Public Elementary School teachers in North Minahasa Regency. This result is shown by obtaining a correlation coefficient of 0.827, which when compared with the interpretation criteria of the correlation index is in the very high category (criteria index attached).

These results reinforce that the teacher's work motivation is a driving force to generate work morale. Teachers who have high motivation are usually going to carry out the task with enthusiasm because there are certain motives and goals underlying the action. The motive becomes a driver and strength for the teacher so he wants to work hard. Without work motivation, the enthusiasm of the work of the teachers will naturally be low. The work motivation of the teacher plays an important role in building a unified understanding of the progress of the school. As Nawawi (1997: 14) states that, "Motivation is a condition that encourages or causes a person to do something or an activity that is carried out consciously, although it is possible that someone must do something that is not liked, so that power is driven by something that is not liked in the form of activities that are forced to do tends to be ineffective and inefficient".

Furthermore, from the calculation of the coefficient of determination between work

motivation variables and teacher performance, the amount of R Square = 0.684 shows that the contribution of work motivation to the performance of public elementary school teachers in North Minahasa Regency is 68.40%. Furthermore, the remaining 31.60% is determined by other variables which cannot be explained one by one or not discussed in this study. Thus from the results of this investigation it turns out that the work motivation variable shows a positive relationship to the performance ability of state elementary school teachers in North Minahasa Regency.

2. Relationship between Compensation and Teacher Performance

Based on the results of the analysis stating that there is a positive and significant relationship between compensation (X2) and teacher performance (Y) on Public Elementary School teachers in North Minahasa Regency. This result is shown by obtaining a correlation coefficient of 0.814, which when compared with the interpretation criteria of the correlation index is in the very high category (criteria index attached). These results show that there is a strong relationship between giving compensation and teacher performance, meaning that the adequacy of the provision of commitment is better the teacher's performance. From the coefficient of determination of R Square = 0.662 that the contribution of compensation to teacher performance is 66.20%, this means there are 66.20% in the variable teacher performance explained by the variable giving compensation and the remaining 33.80% is determined by other variables. This shows that providing adequate compensation from organizations (schools) to employees (teachers) will have a positive impact on their work and thus better performance.

Compensation is one of the functions of human resource management that is closely related to the issue of awarding individuals who are directly involved in the organization's activities for its contribution to the achievement

of the objectives of the organization concerned. The form of compensation can be in the form of money or goods given to the teacher, or direct compensation (direct compensation) in the form of salaries, wages, and intensive wages or indirect compensation (indirect compensation) in the form of holiday allowances, official clothing, excursions, prayer rooms (Hasibuan, 2008 : 118).

Compensation is important to note as an appreciation of the teacher, if the provision of compensation is adequate then satisfaction is not only felt by those who give their rights but also to employees or the teacher concerned. Conversely if the provision of compensation is inadequate or inaccurate it can lead to dissatisfaction with employees or teachers and this greatly impacts their performance. This means that if adequate compensation is given, it will have a positive impact on the success of teacher work and thus the teacher's performance will be better. Thus, from the results of this investigation, it turns out that the compensation variable shows a positive relationship to the performance ability of state elementary school teachers in North Minahasa Regency.

3. Relationship between Work Motivation and Compensation Together with Teacher Performance

Based on the results of multiple correlation test analysis which states that there is a positive and significant relationship between work motivation (X1) and compensation (X2) together with teacher performance (Y) in Public Elementary School teachers in North Minahasa Regency. This result is shown by obtaining multiple correlation coefficients of 0.856, which when compared to the interpretation criteria of the correlation index are in the very high category.

From this result, it can be assured that together the motivation of the teacher's work and the provision of compensation is the driving force to generate work enthusiasm, because teachers who are highly motivated and with adequate compensation will usually carry

out their duties with enthusiasm because of their motives and certain goals underlying the action. The motives and the existence of compensation are a driving force and strength for the teacher so he wants to work hard. Without work motivation, the enthusiasm of the work of the teachers will naturally be low. The work motivation of the teacher plays an important role in building a unified understanding of what school progress is, especially supported by compensation. As explained by Nawawi (1997: 14) states that, "Motivation is a condition that encourages or causes a person to do something or an activity that is carried out consciously, although it is possible that someone does something that is not liked, so that the power driven by something that is not liked in the form of activities that are forced to do tend to take place ineffective and inefficient".

CONCLUSION

1. There is a positive relationship between work motivation and the performance of state elementary school teachers in North Minahasa Regency. That means that teacher performance improvement is characterized by high work motivation.
2. There is a positive relationship between compensation and the performance of state elementary school teachers in North Minahasa Regency. That means an increase in teacher performance is characterized by providing adequate compensation.
3. There is a positive relationship between work motivation and compensation together with teacher performance. That means that high work motivation and providing adequate compensation from organizations or schools to employees or teachers will have a positive impact on their work and thus better performance.

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Innovation Strategy of Exploration in The Scientific Approached Study to Improve Expressive Language Skill in Early Childhood Education Labschool State University of Semarang

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Abstract

Learning in Early Childhood Education (ECE) should be oriented to the needs of children. Children need stimulation to help their physical growth and psychological development optimally. Scientific Learning provides an opportunity for children to be able to think logically, provide opportunities for children to find problem solving, provide opportunities for children to be able to communicate. Expressive Language Ability in students at Labschool Unnes Kindergarten especially B2 group is still lacking. The research used in this paper is Classroom Action Research. Expressive language skills in classroom action research focuses on the ability to express opinions, ideas, stories, communicate with friends and teachers with simple sentences. Strategic Innovation in Scientific Approach Learning is the strategy used in this Classroom Action Research. A new strategy in implementing scientific approach learning is able to provide opportunities for children to explore optimally. Strategies are implemented with a variety of activities which are not monotonous in class but utilizing open areas outside the classroom which can even be done outside the school. This provides an atmosphere of learning that encourages children to interact with teachers, friends and the environment. Thus it can provide a broad space for children to develop all aspects of child development including expressive language development. The data was collected through observation, documentation and direct interviews with children. While the data analysis used quantitative and qualitative methods. The quantitative data was analyzed by calculating the percentage value, while qualitative data analysis was carried out by describing the results and process data in action research. The results of this classroom action research shows that 86% of children have the ability to express opinions with simple sentences, the ability to express feelings with simple sentences, the ability to express ideas with simple sentences, 80% of children retell with simple sentences, 93% of children are able to communicate, communicate

with friends and teachers with simple sentences, 80% of children are able to choose the right words to communicate.

Keywords: *scientific approached, exploration, expressive language skill*

INTRODUCTION

Every child is a unique individual who comes to school with various degrees of knowledge about how the world around them. At least, children have similarities, so they will learn. Learning and exploration are closely connected, where children learn by exploring their environment, at home, at school, in parks, in all the places they go. A child who learns through exploration will have intelligence, social, emotional, and physical development.

Playing is the natural and the best way for children to learn when they investigate themselves and observe others during playing and working. Children explore their world by playing.

In every institution have a management based on the standard of management, in the standard educational process in Ministerial Regulation of Education and Culture No. 137 of 2014 related to National Standards of Early Childhood Education. The standard of Early Childhood Education aims to ensure the quality guarantees of the early childhood education in order to provide the foundation for conducting educational stimulant in helping the growth and physical and spiritual development in accordance with the achievement levels of child development, optimizing child development holistically and integratively, and preparing the formation of attitudes, knowledge, and skills of the child. The standard of Early Childhood Education must be evaluated and refined in well-planned, purposeful and sustainable based on the demands of the local, national, and global changing.

Based on the results of child development evaluation in Early Childhood Education Labschool State University of Semarang institution, there were 66% of children who had expressive language abilities. It showed that the

achievement indicators of development based on Basic Competencies of 3.11 and Basic Competencies of 4.11 which reads "1. expressing desires, feelings, opinions by simple sentences in communicating with friends or adults, 2. expressing desires, feelings, opinions by appropriate word choices, 3. Retelling the story in simple content" were still lacking. The percentage of children who expressed their opinions as many as 9 children or 60%, children who expressed their feelings as many as 9 children or 60%, children who retold the events that had been experienced as many as 10 children or 66%, children who communicated with friends and teachers as many as 10 children or 66% and children who communicated with chosen words as many as 8 children or 53%. To help fulfill the achievement of development results, it needed to be made a classroom action.

Expressive language is the ability to use words, compose sentences, gesture and writing to explain the desire and meaning to other people. Expressive language abilities including the ability to name objects in an environment, describe activities and events, compose words in long sentences, and use the appropriate wording (SPOK), retell the story, answer the question and write the short story. Expressive language for children, it means not only produce the voice or the sound but also how children express their desires, needs, thoughts and feelings to others verbally (Anggalia, Asri; Karmila, n.d.).

Classroom management in terms of the standard process includes: planning of learning, implementation of learning, evaluation of learning, and supervision of learning. The planning of learning is carried out by approaches and learning models that are appropriate to the needs, characteristics of

children, and the local culture that includes semester programs (Prosem), weekly learning implementation plan (RPPM), and daily learning implementation plan (RPPH). The planning of learning is prepared by educators in Early Childhood Education units or programs. The standard process that is expected to be managed in 2013 Curriculum is the management of scientific approach.

Scientific approach based classroom management is not a new thing in Early Childhood Education institutions. However, in Indonesia itself, the introduction of scientific approach has only been rolled out as long 2013 Curriculum was implemented. So there are still many teachers in Early Childhood Education institutions who are still unfamiliar with this term, has not even understand the stage in the classroom management through this approach. Learning with scientific approach is the learning process that is designed in such a way so learners actively construct the concept, laws or principles through the stage of observing (to identify or find problems), formulate the problem, propose or formulate hypotheses, collect data using various techniques, analyze data, draw conclusions and communicate the concept, laws or principles found (Sufairoh, 2016).

The implementation of learning is carried out by playing with interactive, inspiring, fun, contextual and child-centered to actively participate and provide flexibility for initiatives, creativity, and independence in accordance with the talent, interests, and physical and psychological development of children. Interactive is a learning process that prioritizes the interaction between children and children, children and educators, as well as children and the environment. Inspiring is a learning process that encourages the development of children's imagination. Fun is a learning process that is conducted in an atmosphere of free and comfortable to achieve learning goals. Contextual is a learning process that is related to the demands of the natural and socio-cultural environment. Child-centered is a learning

process that is conducted in accordance with the characteristics, interests, potential, development levels, and the needs of children.

The implementation of learning must be apply the sufficiency principle of the number and the variety types of teaching materials as well as educational game tools with students and the sufficiency of learning implementation time. The implementation of learning is carried out based on daily learning implementation plan. The implementation of learning activities include opening, core, and closing activities. The opening of learning activities is an effort to prepare students psychologically and physically to carry out various learning activities. The core activity is an effort of learning to play activities that provide learning experiences directly to children as the basis for the formation of attitudes, knowledge and skills acquisition. The closing activity is an effort to dig back the child's playing experience that has been done in one day, as well as encourage children to follow the next learning activities.

The scientific approach based classroom management is going to build a fun learning for early childhood who puts 5 things: observing, asking, gathering information, analyzing, and communicating. This process is still confusing for Early Childhood Education teachers and the limitation of teachers in managing diverse classes. Exploration of a mater basically support the scientific process can be run well. The ability of observing, asking, gathering information, analyzing and communicating will be revealed when in learning, teachers can explore the material to be delivered. Exploration activities can contain several kinds of activities, where children can discover and solve the problem. Exploration activities provide the opportunity to explore and experience a wide range of solutions in the real problem (Anggraini, 2016:4).

Program of Lecturer Placement for Schools (PDS) is one of the program which is intended for self development of lecturers, while provides learning innovations to teachers. The involvement of lecturers and teachers will

provide the color in the learning innovation process. Early Childhood Education labschool is an institution that became a reference in developing this program. This PDS program will give an idea thoroughly exploration process in support of the scientific approach. This idea was promoted based on problems that have been expressed before, there are still many teachers in Early Childhood Education institutions experience barriers/obstacles in applying the scientific approach. As for the purpose of this study is to describe the improvement of children's expressive language development through innovation strategy of exploration in the scientific approached study in Early Childhood Education Labschool State University of Semarang institution and to describe improvement in children's attitudes and knowledges through innovation strategy of exploration in the scientific approached study.

METHODS

The form of this study is Classroom Action Research (PTK) which is reflective by perpetrators of the action taken to improve the rational stability of their actions in carrying out the task, deepening an understanding of the conditions in which learning practice is carried out. There are several forms or action research models proposed by the experts involved action research, including the model proposed by Kurt Lewin, Kemmis, Henry, Mc Taggart, John Elliot dan Hopkins. The expert who first created a model of action research is the Kurt Lewin, but until now the more known is Kemmis and McTaggart. In this study, the writer use model advanced by Kemmis and McTaggart which is the development of models by Kurt Lewin. Kurt Lewin in Arikunto (2009:92).

The subject of this study is Kindergarten Labschool State University of Semarang group B2 consisting of 15 children. Data collection by observation, interview and documentation. Data analysis was done with the quantitative and qualitative. The analysis of quantitative data by calculating the percentage value. Qualitative

data analysis by describing the result and the data process in action research .

Indicator of success in this study when at least 80% of the number of students reached the completeness criteria determined by the writer. Children who gain value of (BSB) means that they are growing very well and children who are able to reach (BSH) means that children has developed appropriate expectations, while for children who gain value of (MB) means that children has begun to develop, then children who gain value of (W) means that children has not yet developed. Close to 80% of success, it was obtained by children who gain value of (BSH) and value of (BSB).

RESULT AND DISCUSSION

Result of the study

The result of the study were obtained through interviews and observations of children during the action cycle I and cycle II. Interviews and observations conducted to determine the level of success in expressive language abilities, increased changes in attitude and knowledge of children through innovation strategy exploration of scientific approached study. The observed aspects include the ability of expressing opinions with a simple sentence, the ability of expressing feelings with a simple sentence, the ability of expressing ideas with a simple sentence, retelling the story with a simple sentence, communicating with friends and teachers with a simple sentence, was able to choose the right words to communicate.

The result of this classroom action research, most of children had the ability of expressing opinions with a simple sentence, the ability of expressing feelings with a simple sentence, the ability of expressing ideas with simple sentence, retelling the story with a simple sentence, communicating with friends and teachers with a simple sentence, was able to choose the right words to communicate.

The next observation was performed by changing attitude and knowledge of children. Is there an increase in the changing attitude of children's curiosity? Is there an increase in the

changing attitude of ethical behavior? Is there an increase in the changing attitude of listening behavior when someone else is talking? Is there changing attitude of the independent? Is there is changing attitude of ask actively? Is there changing attitude of communicate actively? Is there an increase in children's activities of FAQ? Is there an increase in children's knowledge about the concept of words that related to the theme? Whether children knows the meaning of the word? Is there changing of children's knowledge in selecting words?

The result showed that there was changing attitude and knowledge of children. The curiosity children were increased, increased of changing attitude in ethical behaviour, increased of changing attitude in listen behavior when someone else was talking, changing attitude in independent, changing attitude in asking actively, changing attitude in communicate actively, increased of children's activity in FAQ, increased of children's knowledge about the concept of words that related to the theme, increased of children who knew the meaning of words, changing in children's knowledge in selecting words.

The Result of Cycle I

Increasing of Expressive Language ability in Kindergarten Labschool State University of Semarang students through Innovation Strategy of Exploration in the Scientific Approached Study on the table of cycle I below.

Table. 1 Observation on Increasing of Expressive Language Ability in Kindergarten Labschool State University of Semarang Students through Innovation Strategy of Exploration in the Scientific Approached Study on the Cycle I

No	Observing Aspects	Increasing Values				The Number of Children who reached the expected indicators	% Reached
		Not Increased	Increased	Expecting Increased	Well Increased		
1.	Express opinions with simple sentences		5	4	6	10	66%
2.	Express feelings with simple sentences		5	4	6	10	66%
3.	Express ideas		5	4	6	10	66%
4.	Retell the story with simple sentences		4	5	6	11	73%
5.	Communicate with friends in simple sentences		4	5	6	11	73%
6.	Communicate with teachers in simple sentences		4	5	6	11	73%
7.	Choosing the right words to communicate		4	5	6	10	66%

Based on the table above, the activity of children in expressing expressive language on cycle I as follow. The percentage of children who express opinions as many as 10 children or 66%, children who express feelings as many as 10 or 66%, children can retell about the events that have been experienced as many as 11 or 73%, children who can communicate with friends and teachers as many as 11 or 73% and children who can choose words in communication as many as 10 or 66%. The result of the observation showed that there was an increase in expressive language abilities of Kindergarten Labschool State University of Semarang students than ever but had not yet reached the success of the expected indicators.

While the changing attitude and knowledge of Kindergarten Labschool State University of Semarang students through Innovation Strategy of Exploration in the Scientific Approached Study on the table 2 below.

Table 2. Observation on Changing Attitudes and Knowledges in Kindergarten Labschool State University of Semarang Students through Innovation Strategy of Exploration in the Scientific Approached Study on the Cycle I

No	Observing Aspects	Increasing Values				The Number of Children who reached the expected indicators	% Reached
		Not Increased	Increased	Expecting Increased	Well Increased		
1.	Curiosity		3	4	5	10	66%
2.	Ethical Behavior		3	4	5	10	66%
3.	Attitude to Listen Friends and Teachers		3	4	5	10	66%
4.	Independent Attitude		4	3	5	11	73%
5.	Active in Communication		4	3	5	11	73%
6.	Active in FAQ activity		4	3	5	10	66%
7.	Active in Storytelling		4	3	5	11	73%
8.	Understanding knowledge of word concepts related to the theme		4	3	5	11	73%
9.	Understanding of Choosing Words		4	3	5	11	73%
10.	Understanding of Meaning Words		4	3	5	11	73%

Based on the result of observation on Table 2. There are changing attitudes and knowledges of children can be seen on children's curiosity as many as 66%, habits of ethical behavior as many as 10 children or 66%, the attitude of listening when there are friends or teachers who conveys ideas, opinions or stories as many as 10 children or 66%; children who have an independent attitude as many as 11 children or 73%. While children who are active in asking as many as 73%. Increasing the number of children who communicate actively as many as 11 children or 73%, children who are active in retelling the story as many as 10 children or 66%, children who are active in questioning as many as 10 children or 66%. Increasing in children who have sufficient knowledge about the concept of words related

to the theme is 73%. Children who know the meaning of the word there are 73%, increasing knowledge of selecting words as many as 73%. The result of observations showed that there had been an increased knowledge and improved attitudes change from earlier but had not reached the expected indicators of success. So it needs action in Cycle II.

Cycle II

Increasing of Expressive Language ability in Kindergarten Labschool State University of Semarang students through Innovation Strategy of Exploration in the Scientific Approached Study on the table of cycle II below.

Tabel 3. Observation on Changing Attitudes and Knowledges in Kindergarten Labschool State University of Semarang Students through Innovation Strategy of Exploration in the Scientific Approached Study on the Cycle II

No	Observing Aspects	Increasing Values				The Number of Children who reached the expected indicators	% Reached
		Not Increased	Increased	Expecting Increased	Well Increased		
1.	Express opinions with simple sentences		2	6	7	15	66%
2.	Express feelings with simple sentences		2	6	7	15	66%
3.	Express ideas		2	6	7	15	66%
4.	Retell the story with simple sentences		2	6	7	12	60%
5.	Communicate with friends in simple sentences		1	6	8	14	93%
5.	Communicate with teachers in simple sentences		1	6	8	14	93%
6.	Choosing the right words to communicate		3	3	7	12	60%

The activity of children in expressing expressive language in cycle I as follows.

Percentage of children who express opinions as many as 13 children or 86%, children who express feelings as many as 13 children or 86%, children who can retell about the events that have been experienced as many as 13 children or 86%, children who can be communicate with friends and teachers as many as 14 children or 93% and children who can selecting words in communication as many as 10 children or 80%. The result of observations showed that there was an increased in Expressive language ability in Kindergarten Labschool State University of Semarang students reached the expected indicators of success.

Next about the result of Changing Attitudes and Knowledges in Kindergarten Labschool State University of Semarang students through Innovation Strategy of Exploration in the Scientific Approached Study on the table of cycle II on table 4.

Table 4. Observation on Changing Attitudes and Knowledges in Kindergarten Labschool State University of Semarang Students through Innovation Strategy of Exploration in the Scientific Approached Study on the Cycle II

No	Observing Aspects	Increasing Values				The Number of Children who reached the expected indicators	% Reached
		Not Increased	Increased	Expecting Increased	Well Increased		
1.	Curiosity		1	6	3	14	93%
2.	Ethical Behavior		3	6	6	12	80%
3.	Attitude to Listen Friends and Teachers		2	6	7	15	93%
4.	Independent Attitude		2	6	7	15	86%
5.	Active in Communication		2	6	7	15	86%
6.	Active in FAQ activity		2	5	7	12	80%
7.	Active in Storytelling		2	6	7	15	86%
8.	Understanding knowledge of word concepts related to the theme		2	6	7	15	86%
9.	Understanding of Choosing Words		2	5	7	12	80%
10.	Understanding of Meaning Words		2	5	7	12	80%

Based on the results of observation on changing attitudes and knowledges of children can be seen on children's curiosity as many as 14 children or 93%, habits of ethical behavior as many as 14 children or 80%, the attitude of listening when there are friends or teachers who conveys ideas, opinions or stories as many as 14 children or 93%; children who have an independent attitude as many as 13 children or 86%. While children who are active in asking as many as 86%. Increasing the number of children who communicate actively as many as 13 children or 80%, children who retell the story as many as 13 children or 86%, children who are active in questioning as many as 10 children or 86%. Increasing in children who have sufficient knowledge about the concept of words related to the theme is 86%. Children who know the meaning of the word there are 12 children or 80%, increasing knowledge of selecting words as many as 12 children or 80%. The result of observations showed that there had been an increased in changing attitudes and knowledges. There had been reached the expected indicators of success.

DISCUSSION

The following discussion is the results of the study on product cycles I and II in the expressive language abilities in Kindergarten Labschool State University of Semarang through Innovation Strategy of Exploration in the Scientific Approached Study

The Result of Expressive Language Abilities in Kindergarten Labschool State University of Semarang Students through Innovation Strategy of Exploration in the Scientific Approached Study on the Cycle I and II.

The Result of Expressive Language Abilities in Kindergarten Labschool State University of Semarang Students through Innovation Strategy of Exploration in the Scientific Approached Study on the Cycle I and II on table 5.

Table 5. The Result of Expressive Language Abilities in Kindergarten Labschool State University of Semarang Students through through Innovation Strategy of Exploration in the Scientific Approached Study on the Cycle I and II.

No	Observing Aspects	Observing Results	
		Cycle I	Cycle II
1.	Express opinions with simple sentences	66%	86%
2.	Express feelings with simple sentences	66%	86%
3.	Express ideas	66%	86%
4.	Retell the story with simple sentences	73%	80%
5.	Communicate with friends in simple sentences	73%	93%
6.	Communicate with teachers in simple sentences	73%	93%
7.	Choosing the right words to communicate	66%	80%

Based on table 5 above. The result of Expressive Language Abilities in Kindergarten Labschool State University of Semarang Students through through Innovation Strategy of Exploration in the Scientific Approached Study on the Cycle I and II there is an increase in children's ability to express opinions from 66% to 86%. There is an increase in children's ability to express feelings with simple sentences from 66% to 86%, an increase in children's ability to express ideas from 66% to 86%, an increase in children's ability to retell with simple sentences from 73% to 80%. While children's ability to communicate with friends and teachers has increased from 73% to 93%. In terms of the ability to choose the right words to communicate, it has increased from 66% to 80%.

The Result of Changing Attitudes and Knowledges in Kindergarten Labschool State University of Semarang Students through Innovation Strategy of Exploration in the Scientific Approached Study on the Cycle I and II.

The Result of Changing Attitudes and Knowledges in Kindergarten Labschool State University of Semarang Students through Innovation Strategy of Exploration in the Scientific Approached Study on the Cycle I and II on table 6.

Table 6. The Result of Changing Attitudes and Knowledges in Kindergarten

Labschool State University of Semarang Students through through Innovation Strategy of Exploration in the Scientific Approached Study on the Cycle I and II

No	Observing Aspects	The Result of Cycle I and II	
		Cycle I	Cycle II
1.	Curiosity	66%	93%
2.	Ethical Behavior	66%	80%
3.	Attitude to Listen Friends and Teachers	66%	93%
4.	Independent Attitude	73%	86%
5.	Active in Communication	73%	86%
6.	Active in FAQ activity	66%	80%
7.	Active in Storytelling	73%	86%
8.	Understanding knowledge of word concepts related to the theme	73%	86%
9.	Understanding of Choosing Words	73%	80%
10.	Understanding of Meaning Words	73%	80%

Based on table 6, the increase in changing attitudes and knowledges of children can be seen in children's curiosity from 66% to 93%, an increase in changing habits of ethical behavior from 66% to 80%, an increase in changing attitude of listening when their friends or teachers who convey ideas, opinions or stories from 66% to 93%; an increase in changing children's attitude of independent from 73% to 86%. While an increase in changing children's attitude who are active in asking from 73% to 86%, an increase in active communication of children from 73% to 80%, an increase in changing children to telling stories actively from 73% to 86%, an increase in changing children to active in question and answer activities from 73 to 86%. Increasing children who have knowledge of word concepts related to the theme from 73 to 86%. Increasing children who know the meaning of words from 73 to 80%, increasing children's knowledge in choosing words from 73% to 80%. The results of the observation showed that there was an increase in changing attitudes and knowledges. There had been an increase in the indicators of success.

CONCLUSION AND SUGGESTIONS
CONCLUSION

Classroom Action Research through Innovation Strategy of Exploration in the Scientific Approached Study could be increased in expressive language abilities and

increased in changing attitudes and knowledges of children from Cycle I to Cycle II.

The increase of expressive language abilities could be seen on the ability to express opinions, feelings, ideas, storytelling with simple sentences, communicate actively when studying both with friends and teachers, and also how children choosing the right words to communicate. Similarly, with an increased changing attitudes and knowledges of children.

The increase of changing attitudes and knowledges could be seen in children's curiosity from 66% to 93%, an increase in changing habits of ethical behavior from 66% to 80%, an increase in changing attitude of listening when their friends or teachers who convey ideas, opinions or stories from 66% to 93%; an increase in changing children's attitude of independent from 73% to 86%. While an increase in changing children's attitude who are active in asking from 73% to 86%, an increase in active communication of children from 73% to 80%, an increase in changing children to telling stories actively from 73% to 86%, an increase in changing children to active in question and answer activities from 73 to 86%. Increasing children who have knowledge of word concepts related to the theme from 73 to 86%. Increasing children who knew the meaning of words from 73 to 80%, increasing children's knowledge in choosing words from 73% to 80%. The results of the observation showed that there was an increase in changing attitudes and knowledges. There had been an increase in the indicators of success.

SUGGESTIONS

1. As educators should be sensitive to the problem experienced by their students.
2. Every educator should be active in innovating to improve the quality of learning.

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Jarimatika Method for Enhancing Ability Counting in Deaf Students

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Abstract

This research is motivated by the problems that researchers found in the field, namely a deaf class VI student with the initials A who has not been able to complete the basic multiplication at YPAC Manado SLB. The purpose of this study was to determine the increase in multiplication mathematics by using the Jarimatika method for deaf children in class VI of YPAC Manado SLB. This study uses the Single Subject Research (SSR) method using the A-B design. The research subject was Deaf students of class VI SLB YPAC Manado. The sample was taken by 1 student. Sources of data in the form of the ability of students in the field of multiplication mathematics obtained through writing tests of data collection tools in the form of multiplication questions. The data is analyzed by using the Graphic Visual Analysis technique (Visual Analysis of Graph Data), namely by plotting the data into a graph, then the data is analyzed based on the components in each condition (A and B). Analysis is carried out in conditions and between conditions. Based on the results of the study it can be concluded: By using the Jarimatika method the ability to count the multiplication of deaf children has increased. Multiplication math material will be more attractive to deaf children, because it is something that children love. So that through the use of the method of Jarimatika it will be easier to remember mathematics subject matter.

Keywords: *Jarimatika Method; Deaf children*

INTRODUCTION

In general, deaf children have intelligence that is potentially the same as normal children, but because the development of intelligence is strongly influenced by the development of language, deaf children will show a low intelligence due to difficulty understanding language, they are limited in vocabulary and understanding abstract words. This is because they only use vision in learning languages. Besides the impact of hearing loss, deaf children experience difficulties in the cognitive

field, namely the ability to think and reason. This is due to a lack of language knowledge and understanding of abstract symbols. One of the subjects related to thinking and reasoning skills is mathematics. (Permanarian Somad & Tati Hernawati, 1995: 27)

In learning at school, most students consider that mathematics is the most difficult among other subjects especially in the field of multiplication. That also greatly affected deaf students. They assume that multiplication is a difficult material because the level of

effectiveness in the given teaching cannot be achieved and it does not motivate students to learn mathematics. Based on observations on the ability of deaf students at YPAC Manado SLB, in completing multiplication 1 to 9. Students have not been able to solve multiplication questions 6 until 10 well and correctly. Even though in the 2013 curriculum for basic mathematics (multiplication) this was taught in class II, but until class VI it turned out that students' multiplication skills were still low. So the results of the subject values are especially in Mathematics under the KKM (64). Even if in other subjects such as Indonesian, PPKn, IPA, IPS, and others students do not experience problems (the learning outcomes are complete because it is above the KKM).

Based on the problems found, it is necessary to have innovative actions as a solution. One method recommended by experts is the Jarimatika method. As the opinion of Septi Wulandari (2008: 5), "jarimatika is one method of counting (Kali operation - Share - Add - Less) by using the fingers, learning is very exciting too, because jarimatika does not burden brain memory and the tools are always available. By using the Jarimatika method it is expected that deaf students can improve their ability to calculate multiplication.

METHOD

This study uses a quantitative method of single subject research (SSR). The research subject was a deaf class VI student at YPAC Manado SLB. The study used the A-B design. Under baseline conditions (A) are students' initial abilities in multiplication. Intervention condition (B) is the implementation of

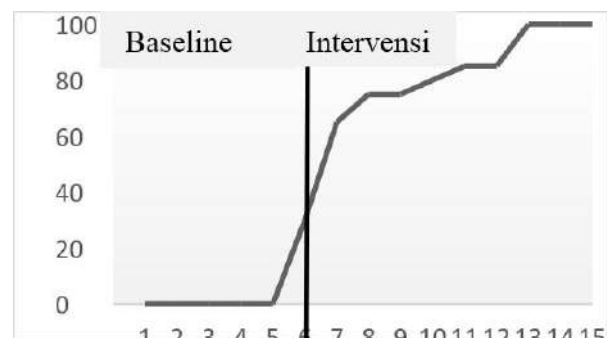
treatments (Juang Sunanto, 2005: 41). Data is collected by researchers through student worksheets. Data were analyzed using visual graph analysis techniques (Visual Analysis of Graph Data), namely by plotting data into a graph, then the data was analyzed based on the components in each condition (A and B). Analysis is carried out in conditions and between conditions.

RESULT

1. Analysis in Conditions

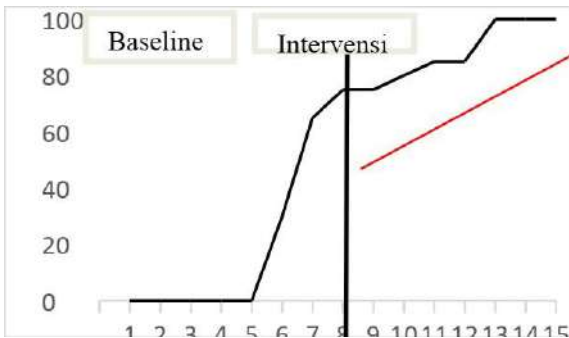
Baseline conditions were carried out five observations. Data obtained varies but is stable (settled) with a very low value (0). This means that the ability of children to solve multiplication questions is still in the category under KKM (Minimal Completion Criteria), namely: 64. Whereas in the intervention conditions carried out for ten observations by giving treatment with the method of fingerprint the ability of children to solve multiplication questions tends to increase and students are able to solve problems with right.

This is because after the child understands the method of multiplication with Jarimatika, the child can automatically complete the multiplication given. Baseline and Intervention conditions can be seen in graph 1. below:



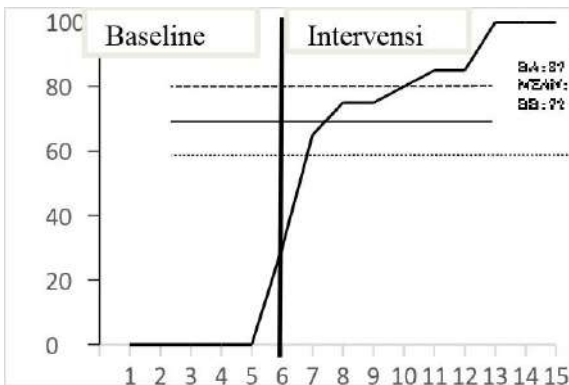
Graph 1. Length of Baseline Conditions and Interventions

Furthermore, in Graph 2, it shows the estimation of the direction of the child's ability to solve multiplication questions 6 to 9 on the condition that A line of trend direction shows a stable change, whereas B has a varied increase.



Graph 2. Direction of Data Trend

The stability tendency of the baseline (A) data line tends to be flat and flat, while the treatment conditions (B) after being given the Jarimatika method the data line tends to increase which means that there is an increase so it is interpreted positively, and variable data (see graph 3.)



Graph 3. Calculating the Stability of Trends

2. Inter-Condition Analysis

The results of the analysis between conditions are as follows:

Change in Condition	B : A	
1. Number of Variables that change	1	
2. Change in direction of tendency	(=)	(+)
3. Changes in Stable stability to Variables	stability to variables	
4. Changes in level	(30 - 0)	
5. Overlapping percentage	0%	

DISCUSSION

Based on the results of data analysis it is evident that the multiplication ability of deaf children in class VI of YPAC Manado SLB especially in completing the 6-9 multiplication of 20 questions can be improved by using the Jarimatika method. This is evident from the results of the graph data, namely in the direction of the tendency of the condition (A) the baseline number of correct answers to be done by the child until the fifth observation only gets a value of zero (0). Whereas in condition (B) after being given an intervention to carry out learning using the Jarimatika method for 30 minutes the direction of the tendency of the child's multiplication ability increased compared to the baseline condition. The results are seen in the sixth observation, (after intervention) the value of the child's multiplication ability is 30, the seventh day increases to 65, the eighth observation becomes 75, the ninth observation obtains a fixed value with a value of 75, the tenth observation experiences a slight increase by getting 80, entering eleventh observation increased to 85, observations of the twelve values of settled children, thirteenth to fifteenth observation the value of the child's

multiplication ability had reached a maximum of 100, meaning that the question (20) of the child could be answered correctly.

Mathematics lessons, especially multiplication, are very important in everyday life, because understanding multiplication can facilitate calculations that occur when interacting with others. For most children completing multiplication operations with small numbers is not too difficult. But if a large number such as the number 6-9 with a large multiplier is also very difficult. One of them was the subject in this study who attended a special school that had difficulty completing multiplication 6-9.

CONCLUSION

Based on the results of the research above the effective Jarimatika method is used to improve the multiplication of deaf students, especially in solving multiplication questions 6 to 9 as many as 20 questions. This is evident from the results of research data. The Jarimatika method turns out to be well used in increasing the multiplication ability of deaf students who have difficulty learning mathematics, by using the fingerprint method students complete multiplication correctly.

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The Effectiveness of the Group to Group Exchange Learning Model on Social Communicative Characters in Students of SD Muhammadiyah Domban 3 Tempel District, Sleman Regency – Yogyakarta

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Abstract

The background of this research is that it is still difficult for character values to be instilled especially communicative characters. This can be seen in learning where students find it difficult to exclude learning, communicate when teachers form groups. Students feel embarrassed and reluctant to express their opinions to the teacher and friends in the learning process. The formulation of the problem in this study is whether the Group to Group Exchange learning model is effective against communicative characters in social studies learning in elementary school students Muhammadiyah Domban 3 ?. The purpose of this study was to determine the effectiveness of the learning model of the Group to Group Exchange on communicative character in social studies learning.

This type of research is quasi experiment. The subjects in the study were 53 students consisting of 26 students of Class 4b as the experimental class and 27 students in class 4a as the control class. Data collection uses non-test with a questionnaire research instrument. Data analysis was performed using the t test. The results obtained showed that the Group to Group Exchange learning model was effective against communicative characters in fourth grade students at SD Muhammadiyah Domban 3 Tempel, Yogyakarta.

The effectiveness of the learning model can be seen from the value of the learning questionnaire in the control class 19 and maximum 38 with an average value of 32.25. While the minimum value of the questionnaire results in the experimental class 25 and the maximum value of the communicative questionnaire 42 with the average score of the questionnaire 34.92. The difference between the control class and experimental questionnaire values is 4 with an average difference of 2.67. The effect of applying the model can also be seen from the value of the sig t-test smaller than α ($0,00 < 0,05$)

Keywords: *Group to group Exchange model, Communicative Character*

INTRODUCTION

Character education in schools is a vital requirement so that the next generation can equip them with basic abilities that are not only able to make it life-long learners as one of the important characters to live in a global information age, but also able to function with positive participation both as personal, as a family member, as a citizen or as a citizen of the world

Character education is a solution for the Indonesian people in order to overcome the nation's moral decline which is felt to be diminishing. Character education is the provision of various views of life values such as honesty, intelligence, caring, etc. and that is the choice of individuals who need to be developed and need to be nurtured from an early age.

Furthermore character education that is integrated into all subjects can provide meaningful experiences for students because they understand, internalize, and actualize it through learning processes so that these values can be absorbed naturally through daily activities. If these values are also developed through school culture, then it is likely that character education is more effective. Character formation must be a top priority because it has been proven that in people's lives there are very many problems caused by bad characters.

SD Muhammadiyah Domban 3 Tempel, Sleman feels responsible for participating in supporting developing character education. But in reality, the planting of student character values is still difficult to instill especially in the learning process. One of the values of characters that have not been embedded properly is communicative character. Based on the results of observations made during learning, students are more likely to be passive. When teachers carry out learning by forming group discussions, students are also still reluctant to express their opinions. Students who are active in groups are only one student and appear to dominate their group friends.

Students look confused when they want to express their opinions to their group friends. Communicating between friends is also not very good. This is due to the low communicative character value of students.

Planting character values can be done in the learning process. Each subject has character values that students can develop in their daily lives. One of the subjects whose subject matter relates directly to everyday life is an IPS subject. The main purpose of IPS is to educate and provide basic skills to students in order to develop themselves according to their talents, interests, abilities and environment as well as various provisions for students to pursue higher education (Trianto, 2010).

Besides through subjects, the learning process that can actualize character education is a process that actively involves students. Student-centered learning will provide meaningful experiences to students. The teacher only acts as a facilitator not as an orator. The selection of learning models must also be adapted to the characteristics of students and also the subjects especially the material to be delivered. The learning model applied by the teacher should also be a model that can actualize student character values. One of the learning models that can be applied is the Group to Group Exchange learning model.

The GGE learning model provides learning that each group "teaches" to other students what they are learning (Silberman in Trianto, 2012). This learning model invites students to discuss in their own groups, then continues to present groups with other groups and exchange opinions on the material they get. The GGE learning model teaches students to think about what they are learning, provides opportunities for students to discuss or socialize with friends, ask questions and share knowledge with other friends. The activities carried out in the GGE learning model train students to help each other in their groups.

Prayogo and Ayu Silviana (2010) suggest that the GGE learning model is a discussion

format that assigns different tasks to different groups of students. The Group to Group Exchange learning model is an active learning model where students can be able to hear, see, ask questions about the material being studied, and discuss material with other students. Group to Group Exchange provides opportunities for students to act as teachers for other students. In learning with the GGE model, teaching fellow students provides opportunities for students to learn something well and at the same time become speakers for each other (Silbermen 2012). Giving different assignments to students will encourage them to not only learn together but also teach each other. On the basis of these thoughts, the researchers are interested in reviewing and further examining "The Effectiveness of the Group to Group Exchange Learning Model on Communicative Characters on Students of SD Muhammadiyah Domban 3 Tempel, Sleman-Yogyakarta Regency".

RESEARCH METHODS

This study uses a type of experimental research with a quasi experimental design. This design has a control group, but it cannot function fully to control external variables that affect the conduct of experiments. This study uses the Quasi Exsperimntal design in the form of the Nonequivalent Design Group.

This research was conducted in Muhammadiyah Domban 3 Elementary School Tempel, Sleman, Yogyakarta on the 21st to 26th May 2018. The population in this study were all fourth grade students of SD Muhammadiyah Domban 3 Tempel, Sleman, Yogyakarta, amounting to 53 students. The use of samples in this study used saturated samples. The study was taken two classes, one class for the control class, namely class IVa with a total of 27 students and for the experimental class namely class IVb with a total of 26 students at SD Muhammadiyah Domban 3 Tempel, Sleman, Yogyakarta

Data collection is done by using a questionnaire to see the communicative

character of students. The questionnaire instrument test was conducted on fourth grade students at SD Margorejo, Tempel, Sleman-Yogyakarta Regency. In order for this study to obtain valid data, it is necessary to test the validity and reliability before the instrument is used. Validity and reliability tests were carried out at Margorejo Tempel Station. The subject of this instrument test questionnaire sheet is class IV students totaling 45 students. The instruments tested were as many as 45 subjects. The number of items tested were 30 statements. Determination of valid observation instruments from the results of field trials was conducted using product moment correlation techniques from Carl Pearson

Calculated date using SPSS version 20, the results obtained from 30 items that were tested were 10 items about Vaid, namely items number 2, 4, 5, 7, 8, 11, 12, 13, 16, 19. So, 10th Valid items will be used in research, while invalid items will be discarded / not used anymore. The results of the obtained reliability coefficient of 0.735. From these results it can be concluded that the instrument is reliable because the value of the coefficient is greater than the critical value) $0.752 > 0.7$

While for the preliminary test, namely the normality test, the significance value for the experimental group was 0.200, while the significance value for the control group was also 0.200. Because the significance value of the experimental group and the control group is greater than the value of α (sig.> 0.05), it can be concluded that the data are normally distributed. The homogeneity test shows that the significance value is 0.198. Because the significance value is greater than the value of α (0.198> 0.05), the data has the same or homogeneous variant.

Results

Tests on the effectiveness of the group to group exchange learning model towards the characters of elementary school Muhammadiyah Domban 3, Tempel, Sleman Yogyakarta using independent t-test analysis

and post test scores as covariates through the SPSS 20 for windows program. The hypotheses tested in the independent t-test analysis are:

Ho Hypothesis: The group to group exchange learning model is effective against communicative characters in elementary school students Muhammadiyah Domban 3, Tempel, Sleman-Yogyakarta

Ha hypothesis: Ineffective group to group exchange learning model on the communicative characters in elementary school students Muhammadiyah Domban 3, Tempel, Sleman-Yogyakarta.

Effective group to group exchange learning model on communicative characters in elementary school students Muhammadiyah Domban 3, Tempel, Sleman-Yogyakarta

The hypothesis was carried out at a significance level of 5% (0.05). Independent t-test analysis results

Tabel Hasil Analisis Uji –T

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	T	df	Sig. (2-tailed)
Karakter komunikatif	Equal variances assumed	.833	.036	2.184	51	.000
	Equal variances not assumed			2.169	44.279	.000

Based on the results of the T-test analysis table above there is a significant independent t-test value of 0.036. Because the significant-test value is independent $< \alpha$ (0.036 $<$ 0.05) then Ho is rejected and Ha is accepted. So it can be concluded that the group to group exchange learning model is effective against the comunkative character of elementary school students Muhammadiyah Domban 3, Tempel, Sleman-Yogyakarta.

The results of hypothesis testing which states that social studies learning uses an effective model of group to group exchange learning on comunkative character in grade IV elementary school students is proven. The

effectiveness of the group to group exchange learning model on communkative characters in grade IV elementary school students is indicated by the Sig independent t-test value in the table of results of the t-test analysis smaller than α . (0.036 $<$ 0.05).

The effectiveness of the learning model can be seen from the value of the learning questionnaire in the control class 19 and a maximum of 38 with an average value of 32.25. While the minimum value of the questionnaire results in the experimental class 25 and the maximum value of the communicative questionnaire 42 with the average score of the questionnaire 34.92. The difference between the control class and experimental questionnaire values is 4 with an average difference of 2.67. The results of the acquisition of character values indicate the average value obtained by the experimental class in social studies learning using a group to group exchange learning model higher than the average value of the control class in social studies learning without using the group to group exchange group to group exchange model. This means that the use of an effective group to group exchange learning model on the value of communicative characters in SD Muhammadiyah Domban 3 Tempel students.

The results of this study are supported by theories that were found previously. Prayogo and Ayu Silviana (2010) also suggested that the GGE learning model is a discussion format that assigns different tasks to different groups of students. The GGE model requires students to think about what students are learning, gives them the opportunity to discuss or socialize with friends, ask questions and share knowledge with other friends. Group to Group Exchange provides opportunities for students to act as teachers for other students. In learning with the GGE model, teaching fellow students provides opportunities for students to learn something well and at the same time become speakers for each other (Silbermen 2012).

The above theory is in line with the goals of character education. According to Mulyasa

(2013) character value education aims to improve the quality of educational processes and outcomes that lead to the formation of full and integrated character and noble character of students in accordance with graduate competency standards in each education unit

Teachers in the learning process must be able to motivate, guide, direct and provide opportunities to participate in students in learning activities. By implementing a cooperative approach students are expected to be more active and able to work with groups. As with the opinion of Miftahul Huda (2015: 111) that "cooperative learning (cooperative learning) is that the synergy that arises through cooperation will increase motivation that is far greater than through through an individual competitive environment". The teacher's skills in managing learning are very important in determining the success of learning. In line with the opinion of Soetopo (2005: 185-200) teachers deliver students to master the subject matter, obtain and develop experiences, skills and attitudes and values.

In this study the teacher tried to improve and and develop the character of students in social studies learning using the group to group exchange learning model. This is in accordance with the opinion of Muhammad Rahman (2014: 192) that the unit of learning as a handle for teachers is arranged in such a way that the learning unit already contains components. That is, in the unit of learning that has been portrayed the effort or activity that will be carried out to instill confidence in students, hold relevant activities, arouse interest or attention of students, conduct evaluations and foster a sense of respect, care for others or take pride in students

CONCLUSION

From the research that has been done, some conclusions can be drawn, including:

- a. The group to group exchange learning model is right for use in social studies learning because with this method

students have a social soul and can be developed in daily life.

- b. Through the group to group exchange learning model students are given the opportunity to discuss and socialize.

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A Review of The Relationship of Ice Breaking in SETS Visionary Learning toward Learning Motivation and Learning Outcomes

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Abstract,

This paper reviews the literature on the relationship between ice breaking in visionary learning SETS with motivation and learning outcomes as much as 30 research. Ice breaking activities in learning SETS vision has helped improve motivation and learning outcomes. The results show how variable the ice breaking in learning SETS vision correlated with motivation and learning outcomes based on age related classification. Then, we move on to more in-depth literature review to determine which variables were moderate or mediate the ice breaking relations with the motivation and learning outcomes. Finally we describe the progress of the implementation of the ice breaking in visionary learning SETS with a special focus on the construct of ice breaking in learning SETS vision.

Keyword: *Ice Breaking, SETS, Motivation, Learning Outcomes*

INTRODUCTION

Educational researchers have long been interested in the positive effects of which are owned by ice breaking on motivation and learning outcomes (eg, Ambini, 2016; Kavanagh 2012). Rigid serious learning process without the slightest nuance excitement would surely very quickly boring. According to Lucy (2012: 50) states of the brain can not be forced to perform focus for a long time. For instance, it could use a set age. For example, for children aged 5 years, the time span optimum focus can do is 5 minutes, so 30 minutes is the maximum time span to focus in order to avoid excessive fatigue of the brain.

According Sunarto (2012: 3) describes when the mind can not focus anymore, then immediately in need of focusing efforts back. The efforts made by conventional teacher is to improve the tone of voice even louder,

threatening or even banging the table to call attention back. Such an effort is actually just aggravated the situation of learning, because the actual learning process much needed emotional involvement of students. Thus it is important for teachers to master a variety of ice-breaking techniques in an effort to continue to maintain the stamina to learn students,

To make learning more meaningful, it needs to be visionary instructional SETS. Learning vision emphasizes the linkages between elements SETS (Science, Environment, Technology, and Society) as an inseparable unity in learning (Binadja, 1996). Learning with SETS vision to support a holistic learning sesuai with the characteristics of elementary school students are still at the stage of concrete operations (Piaget, 2001: 136), students learn through the real thing or they are experiencing.

Ice breaking in learning vision SETS can realize optimal learning because of the atmosphere of boredom can be overcome with joyful learning, then learning is associated in the element of science (Science), the environment (Environment), technology (Technology), and society (Society) so that the student gets greater understanding and meaningful learning. Students not only got the solution will be something specific problems but they can also look at the relationship of reciprocity will be the solution they found with the existing science, environment, technologies used, and their effects on society. Thus, the enthusiasm of the students towards learning impact on motivation and learning outcomes.

These problems come from the complexity of the concept and the confusion that exists because there is no clear indicator. Problems from studies of ice breaking, reflected in the different research methodology, research questions, operationalization, and the findings, can benefit from the research synthesis. The purpose of this article is to review the existing empirical literature and presents the type of ice breaking associated with motivation and learning outcomes.

1.1 Ice breaking in learning SETS vision, motivation to learn, learning outcomes.

Vision SETS give color to the perspective of a person in seeing and understanding things, where everything is understood to have linkage element SETS, which affect reciprocal overall, which may seem obvious compared to when the same thing was not observed with the vision SETS "(Binadja , 1999).

Ice breaking affect the results and motivation to learn I Komang, (2017). Students who do ice breaking will have a high tendency of learning motivation, M. Ilham (2017) and will have an impact on high academic achievement, Burn (2014)

Motivation is a complex part of the human psychology and behavior that affect how individuals choose to invest their time, how much energy they put into a certain task, how

they think and feel about the task, how long they stay on task. Astuti (2012: 57) states that the motivation to learn is the encouragement of the student to learn. With their motivation, students are more eager to follow the lessons thus learned satisfactory achievement.

Juniar (2016: 67) argues motivated behavior results from the consequences of previous similar behavior. If students obtain reinforcement for a particular behavior, they tend to repeat with vigor. If not, students tend to lose interest and underperforming

1.2 This research

This paper examines the research literature on the relationship between ice breaking with motivation and learning outcomes. Our goal is to test ice breaking has been defined, describes the relationship between the variables ice breaking with motivation and learning outcomes. Because the study included various ages of children in various educational contexts in their samples, we decided to organize a study based on a category associated with age. The following categorization is:

- 1) Primary School (ages 6-12 years).
- 2) Middle school, high school and beyond (age 13-20 years).

METHOD

This research is a study of literature. Studies investigating the relationship with the motivation and ice breaking learning outcomes identified through national and international research journals. Literature studies conducted in primary school category were 13 studies and 17 studies for the category of high school and beyond.

RESULTS AND DISCUSSION

1.1 Ice breaking in Primary Schools (13 studies)

According Sunarto (2013: 3) argues that the learning process is seriously stiff without the slightest nuance excitement would surely very quickly boring. The strength of the average human being to keep the concentration of the

monotony is only about 15 minutes. More right mind immediately turned to other matters which may be unbelievably far away from where he sat follow a particular activity.

This is in line with the opinion of Lucy (2012: 50) states that The human brain can not be forced to perform focus for a long time. For instance, it could use a set age. For example, for children aged 5 years, the time span optimum focus can do is 5 minutes, for children aged 15 years, a span of time focusing just 15 minutes. When a 35-year-old or 60 years, the focus of the optimal 30 minutes. So 30 minutes is the maximum time span to focus in order to avoid excessive brain fatigue

Giving an ice breaker can increase the activity of students and student motivation, Riga Ambini (2016). There are significant differences between classroom learning motivation Isiswa that learned to use ice breaker and classes be taught without the use of ice breakers, Arimbawa (2017). Ice breaking also affects the elementary student interest, Cahyani (2014).

Styani (2017: 711) argues that *ice breaking* prioritizing teaching and learning atmosphere is cheerful, the spirit, and not boring is done individually and groups. Ice breaker very well be applied during the learning process.

Other research results that support that Yeganehpour Parisa study (2016) showed that the ice breaker is able to improve the speaking skills of English as a foreign language, which has four main aspects, namely: (1) grammar; (2) Pronunciation; (3) Smoothness; (4) Vocabulary that achievement EFL learners increase.

Yoruk, et al (2010), in his research shows that learning based approach SETS positive effect on the relationship between the learner and the real world, encouraging students to be more active, creative and critical thinking in providing solutions to a problem in the neighborhood staple. Students learn to better understand a topic in depth when compared

with students who learn by conventional methods.

Results of research conducted by Keke T. Arita (2008) indicates that there is an increase in student learning outcomes as motivation given by the teacher. Astuti (2012: 57) states that the motivation to learn is the encouragement of the student to learn. Research conducted by Yuni Dhayinta Handayani (2015) showed a positive correlation between learning motivation on learning achievement.

Research conducted by Ghullam hamdu, Lisa Agustina (2011) demonstrated that the effect on the achievement of learning motivation to learn science students.

Research Hsiang-Yung Feng, Jin-Jun Fan, Hui-Zhen Yang(2013) showed: Many studies in EFL has emphasized the importance of students' motivation or teaching methods; but they ignore the subsequent impact on student achievement, and even gender differences in learning.

Research conducted by Anike daughter, Emilia Dewiwati Pelipa (2015) concluded that there is a significant relationship between learning motivation and learning outcomes of research results by Dimas Qondias (2017) showed that this study aims to determine the determination of achievement motivation to learning outcomes.

The role of teachers in educating and motivating learning, have an active role that can be a source of renewed vigor for the child, so the child's motivation to learn will increase and will increase learning outcomes. However, the role of educator too dominant will lead to the participation of students in the low and tend to be less interested in learning so that the learning seem boring (Rohmanurmeta, 2016: 11)

1.2 Ice breaking, motivation and learning outcomes for Middle school, High school and beyond (17 studies)

Results of research conducted by Riya Susanah show that learning activities by applying fresheners game (ice breking) can improve learning outcomes. Results of research by Muhammad Ilham Bakhtiar (2015) showed

that the Ice Breaking as BK media to improve the social skills of students. Destination guide the development of ice breaking video that acceptable (received), based on usefulness (utility), accuracy (accuracy), feasibility (feasibility) and relevance in improving social skills students get a decent result for use

Research conducted by Fatwal Harsyad show that learning math using Brain Gym Ice Breaking and suitable for application in mathematics because both can create a creative learning so that students do not feel bored in following the learning of mathematics. Pleasant learning atmosphere can make the interest of learners increased.

Results of research by Muh. Joseph Mapease (2009) showed that: (1) There is a positive effect if the means and motivation to learn together on learning outcomes PLC; (2) There is a positive influence on the result of learning how to learn PLC, but by no means; (3) There is a positive influence learning motivation towards learning outcomes PLC.

Research support is Marie Kavanagh study (2012) showed that the ice breaker is able to stimulate students' experiences and perceptions influence students to develop their skills. Ice breaker used to transition learning situations. Ice breaker designed to facilitate the involvement and development of students in disciplines that have been provided. It turned out that these activities provide criteria for success.

Styani (2017: 711) argues that *ice breaker* prioritizing teaching and learning atmosphere is cheerful, the spirit, and not boring is done individually and groups. Ice breaker very well be applied during the learning process

Another study conducted Nugraheni (2012) in Sukoharjo SETS also shows that the approach can improve student learning outcomes in participating in the learning process

According to Bakar in his research mentions (2014: 723) motivation is a complex part of the human psychology and behavior that

affect how individuals choose to invest their time, how much energy they put into a certain task, how they think and feel about the task, how long they stay on task. Astuti (2012: 57) states that the motivation to learn is the encouragement of the student to learn. With their motivation, students are more eager to follow the lessons thus learned satisfactory achievement.

Anisaturizqi (2015: 805) states that a high learning motivation will have the energy to learn, so that the learning achievement may indicate optimal results, while low learning motivation affects the lower educational achievement as well. Thus, the greater the success the greater motivation to learn owned (Mulyaningsih: 2014: 442)

According Juniar (2016: 67), the result of motivated behavior of the consequences of previous similar behavior. If students obtain reinforcement for a particular behavior, they tend to repeat with vigor. If not, students tend to lose interest and underperforming.

According Warti (2016: 181) "motivation is the will, the will, the desire, the power that drives someone to do something". Arita (2008: 11) states "The motivation to learn important in determining learning outcomes". Sulistyowati (2012: 1) states that a learning achievement an important indicator for measuring the success of the learning process. The learning achievement is influenced by many factors, among them the motivation to learn and the professional competence of teachers ". The better the quality and effectiveness of teaching strategies that do can have an impact on motivation to learn is good, and the subsequent impact on the learning outcomes that are also good (Donald Samuel, 2014: 8).

Research by Singgih Santoso (2013) show that collaborative learning model that is applied to the material straight motion kinematics and motivation to learn can improve learning outcomes physics.

According Sjukur (2012: 372) states that the results obtained studying the ability of individuals after learning takes place, which can

provide better behavioral changes of knowledge, understanding, attitudes and skills of students so as to be better than ever.

According Astuti (2012: 1) "learning outcomes are achieved when students follow and do the work and school learning activities indicated by the value or number that corresponds to minimum completeness limit set by the school ". This is in line with the opinions Basiroh (2017: 81) that learning outcomes are patterns of actions, values, understandings, attitudes, appreciation and skills.

1.3 Relations ice breaking in visionary learning SETS with motivation and learning outcomes.

In the children's learning process actively assist the teacher directing the child when learning difficulties. Giving ice breaking also affect the enthusiasm of students to learn. In this way students-students will be encouraged to improve their learning activities, so that the learning outcomes can be improved. Each teacher has their own way to educate students Differences in means and strategies of teachers in educating students are different because each teacher to have an attitude and a different nature. With the teachers pay attention to the students and the constraints that understood better student, the teacher easier knowing the difficulties experienced by children in learning and find solutions together to solve the existing problems.

The following is the ice breaking indicator associated with motivation and learning outcomes include:

a. Their physical movements

Physical movement is closely associated with kinesthetic intelligence. According to Lucy (2012: 136) states that the bodily kinesthetic intelligence is the ability to use the body or move with accuracy (precision) to express ideas, feelings, emotions, and the body's ability to use skills. Kinesthetic intelligence is generally observed since I was a boy,

that is, from their movements while playing, running, kicking, dancing, etc.

b. The anecdotes make laugh

There are many ways to stimulate student learning by encouraging way and it can be learned by all teachers. The most often used by teachers is by concocting an ice breaker inserted in the learning process. Excellence ice breaker is to be learned by everyone without requiring high skills. Quite the ice breaker can be planned and integrated with a variety of subject matter to be taught by a teacher.

According to Said (2010: 87) "Energizer is the games that are used when the participants looked cool or demoralized, tired and sleepy". This activity is used as a means of lowering tensions and inject new vigor. The decline in this spirit can also occur after a pause (break) or lunch. To that end, obeying the spirit of play and training to be revived

c. Accentuation interest

There are many ways to stimulate student learning by encouraging way and it can be learned by all teachers. The most often used by teachers is by concocting an ice breaker inserted in the learning process. Excellence ice breaker is to be learned by everyone without requiring high skills. Quite the ice breaker can be planned and integrated with a variety of subject matter to be taught by a teacher.

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d. Moment that changed the way the mind

Each teacher has a strategy to create moments that made the students have an open mind. According to Lucy (2012: 6) states that "if someone wanted a small change, then change their behavior. but if the change is large, and the mental change his mind ". Mental change is basically ingrained (mindset) through the means. The human mind has extraordinary ability, such as a computer, the mind will get something inserted in accordance with the program (installed) into it. If the program is entered positive, the result is positive, otherwise if negative program that is put into it, the result is negative (Lucy, 2012: 17).

e. precisely the situation

Ice breaking activities not only be done with a song, even the movement of audio-visual impressions, brainstorming, interesting story or perform an activity in the neighborhood. It has close links with a vision of learning SETS (Scient, Environment, Technology, and Society) that not only prioritizes aspects of learning materials. With their warm-up activity fun lesson, it will have an impact on students' motivation and learning outcomes as a whole, both in the cognitive, affective, and psychomotor.

CONCLUSION

Ice breaking in learning SETS vision is very important in improving motivation and learning outcomes in a holistic manner. Early learning fun atmosphere that will stimulate the student's interest in learning. Students are able to carry out learning through various aspects of materials science, environment, technology, and social so that output a maximum on various aspects of good domains of cognitive, affective, and psychomotor. Ice breaking in elementary school is needed for primary school students were in the range of focus for a moment. So

will greatly affect the motivation and learning outcomes. As well as high school and beyond, is also required. But the intensity of ice breaking activities done when needed. Ice breaking in this study that the correlation in accordance with the motivation and achievement of learning outcomes are: (a) their physical movements, (b) anecdotes that make laugh, (c) the accentuation of sounds that attract attention, (d) changing moment road-mind, and (e) the right situation.

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Analysis of Organizational Culture on Competency of Educators Community Learning Activities Center (PKBM) in Minahasa District

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Abstract

The finding of this research:

1. Relationship Between Organizational Culture and the Competency of Educators of Community Learning Centers (PKBM) in Minahasa District and
 2. How much is the degree of relationship between organizational culture and PKBM Educator Competencies in Minahasa District. The method used in the study is quantitative inferential research population determined by census as many as 37 people, therefore this study uses population research, data collected by questionnaire technique using a Likert scale before being used tested validity and reliability followed by analysis prerequisite test with proof of homogeneity, normality and linearity . The data analysis technique used is the Correlation of Product Moments from Pearsen. The results of data analysis found: 1. correlation coefficients of $r = 0.66$ and 2. The degree of relationship is $r^2 = .43$.
- Conclusion:

1. There is a relationship between organizational culture and PKBM Educator Competencies in Minahasa District and
2. There is a degree of relationship between Organizational Culture and PKBM Education Competence in Minahasa District. It is recommended that PKBM build and realize organizational culture seriously as a binder of determination and shared enthusiasm in carrying out the task of service to teach marginalized students to be able to live independently.

Keywords; *Organizational Culture, Competence, PKBM*

INTRODUCTION

The Community Learning Center (PKBM) as an institution is built on community participation to help meet the "wasted" learning needs of the community from formal school education units. Therefore PKBM together with Learning Activity Studio (SKB) has a strategic position in developing and supporting the realization of learning communities even to promote the dignity and dignity of marginalized communities. The

Community Activity Center (PKBM) was chosen as the object of research because PKBM is an educational institution outside the formal schooling system built from, by and for the community and organizes various community empowerment programs especially for those who are unable to complete education at certain levels of education (dropping out) and classified as poor.

The tasks and functions of the PKBM are very important in their implementation, which cannot be realized by themselves, even

experiencing ups and downs caused by a variety of factors that influence each other. The competence of educators is thought to be one of the determinant factors that determine the PKBM's ability to meet people's learning needs. PKBM as an organization certainly has an organizational culture that becomes a unifier of ideas and works of educators to actualize the potential of community resources. Organizational culture is a system of disseminating trust and values that develops in an organization and directs the behavior of its members. Organizational culture can be the main instrument of competitive advantage, namely if the organizational culture supports the organization's strategy, and if the organizational culture can answer or overcome environmental challenges quickly and precisely Organizational culture in addition to influencing competencies also influences the performance of Educators.

Edward B. Tylor in his book *Primitive Culture* was published in 1871 in HAR Tilaar, (1999: 39) arguing as follows: "culture or civilization is a complex whole of knowledge, belief, art, legal morals, customs and abilities and other habits obtained by humans as members of the community ". Culture originates from the word culture, adapted from Latin, which is cult which means inhabiting, working on, or worshiping, and are meaningful results of something. Warner and Joynt (2002: 3) interpret culture from Berthon (1993) as a result of human actions. Culture in an organization is characteristic of the spirit or atmosphere (belief) and belief (belief) carried out within the organization.

Richard L. Daft (2007: 107) argues, culture can be analyzed at three levels, namely:

1) Artifacts (clothing, behavior patterns, physical symbols, organizational ceremonies, office layouts). Namely: all things that can be seen, heard and observed by someone and the visions of the members of the organization.

2) Values Judging from the way people explain and justify what they do can be interpreted and stories, stories and organizational symbols that members can use to describe them and

3) Basic assumptions and beliefs are the core of culture and subconsciously guides behavior and decisions. Robbins (2007:62) culture is a system of shared meanings and beliefs held by members of the organization that determine, in large part, how they act on one another and on outsiders. Widya Parimita & Wendi Hadi Prayuda, culture implies several things. First, culture is perception. Individuals perceive organizational culture based on what they see, hear or experience within the organization. Second, even though individuals may have different backgrounds or work at different levels in the organization, they tend to describe the organizational culture with the same terms. Finally, organizational culture is a descriptive term. Culture is about how members perceive the organization, not what they like.

Some experts interpret organizational culture as follows: (1) a shared system of values and beliefs that interact with the people of a company, the structure of the organization and the supervision system to produce behavioral norms and (2) as a pattern of predetermined basic assumptions or developed to learn ways to integrate, which have functioned well which has been considered new, therefore it must be taught to new members as a great way to think about, feel and have an interest in the problem, (3) values that are the source of guidance human power to deal with external problems and efforts to adjust integration into the company so that each member of the organization must understand the values that exist and how they must act or behave, (4) corporate culture or management culture or also known as work culture is widely distributed dominant values right in the organization and referred to as the work philosophy of the employee, (5) organizational culture is a pattern of trust, symbols, rituals, and myths that develop from

time to time, and serve as an adhesive that unites the organization and (6) Almost similar to Glaser, Kreitner and Kinicki in Koesmono (2005: 167) social adhesive that ties members and organizations (Kast in Robins, (2005) and Schein in Gibson et.al,2005); Susanto in Soedjono (2005: 24); Moeljono Djokosantoso in Soedjono (2005: 24); Koesmono (2005: 167).

Stephen P. Robbins (2002: 283) asserts, organizational culture has the following functions:

- 1) Determine the role of distinguishing between companies with one another,
- 2) Determining shared goals more than just individual pleasures,
- 3) Maintaining corporate stability and
- 4) Making identity for members of the organization.

An organization also has a personality called culture. Organizational culture that is well realized in the sense of being a moral reference that binds the hearts and minds of the parties contained in such an organization, will clearly become a driver of work spirit, a spirit of effort which in turn also triggers and spurs creative and innovative ideas so that someone or groups of people within the organization will have the competence to carry out or carry out the work carried out on them. Organizational culture that is manifested in any organization including education organizations in this case PKBM, creates a psychological climate that is "intimate" so that every PKBM educator will be encouraged to do work happily or happily because there is no pressure from any party except the same sense of responsibility to fulfill tasks in order to achieve common goals. Organizational culture is a norm, values, assumptions, beliefs, philosophy, organizational habits, and so on (the contents of organizational culture) that are developed for a long time by founders, leaders, and members of organizations that are socialized and taught to new members and applied in activities organization so that it influences the mindset, attitude, and behavior

of organizational members in producing products, serving consumers, and achieving organizational goals (Wirawan, 2007: 10).

Research on the Effect of Organizational Culture and Training on Competence and Its Impact on the Performance of Employees in the Regional Secretariat of Samosir Regency found the following: both partially and simultaneously the organizational culture and training fell positively and significantly on competence and had a positive and significant impact as well. on the performance of employees in the Regional Secretariat of Samosir Regency (Cristin Yosephin Simbolon. Universitas Terbuka. 2015:2).

RESEARCH METHODS

This research was carried out by using inferential quantitative methods with the data source population as many as 37 respondents PKBM educators in Minahasa District were determined by census techniques so this study used population research, data were collected by questionnaire technique using a Likert scale before being used tested validity and reliability followed by prerequisite tests analysis by proving homogeneity, normality and linearity. The data analysis technique used is Correlation of Moment Production from Pearsen.

RESULTS OF RESEARCH AND DISCUSSION

1. Results Of Research

Data obtained through research instruments and analyzed using the Pearse Product Moment Correlation formula found as follows: (1) $r = 0.66$ and (2) $r^2 = 0.43$.

2. Discussion

The results of data analysis found that, the relationship between organizational culture

and competence is equal to 0.66. Based on these findings it can be explained that, organizational culture has a relationship with competence as much as 66. The results of this study also found that organizational culture determines competence as much as 43% and there are 67% of other factors not examined in this study. The results of the study explain that, indeed organizational culture is not directly related to competence but it can be explained that, actually in the control system found by other studies as mentioned later contains elements of organizational culture as well as training activities actually also contain elements of organizational culture. The existence of training activities shows the organizational culture that plans for training to improve employee competency in this study related to PKBM educators. A study of the Analysis of Factors Affecting the Competence of Sales Personnel to improve Sales Force Performance (Case Study of Credit Card Sales at PT. Bank Rakyat Indonesia (Persero), Tbk Kantor Cabang Kudus). Find the following: the effect of quality control system on sales force competency of 0.385, the effect of sales training quality on sales competence is 0.163. (Harjar Sasongko.2008.) Faculty of Economics, Semarang State University. *S2 Unpublished Thesis*). However, if an operation is to be carried out to achieve the objectives that have been formulated, the organizational culture must be the choice to be realized in the organization, including the PKBM as an education organization.

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Efforts of Primary School Teachers in Developing Personality Competence

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Abstract

Recently, many teachers violated the code of teachers conduct. Regardless of whose mistakes, teachers should act professionally instead of emotionally. Teachers seen as an mature adult should be able to control themselves. This study aimed to describe the efforts of teachers in developing personality competence. The intended personality competence includes honesty, mature, responsibility, work ethic, being proud of being a teacher, being confidence, and teacher ethics. The research method used is qualitative approach. The data were collected used deep interview and documentation. The results show some models of teacher personality competence development include performing religion tenets, self-reflection, school community involvement and reading books of self-development. This study is expected to be a guide or reference for teachers in developing personality competence. Moreover, for principals, the research can be a base to establish a policy in developing teacher personality competence.

Keywords: *Teacher, Development, Personality Competence*

INTRODUCTION

Recently, many cases of violence committed by teachers against their students continue to occur, even at the elementary school level. The existence of evidence of violence by elementary school teachers to their students is reinforced by data from a survey conducted by the Indonesian Child Protection Commission (KPAI) in 2008 which explained that the most victims always came from elementary and junior high school students. In addition, the results of the monitoring and evaluation of KPAI in 2012 in nine provinces in Indonesia showed that 91 percent of children were victims of violence in the family environment, 87.6

percent in the school environment, and 17.9 percent in the community. Meanwhile, until April 2015 cases related to violence in education were 1764 cases and ranked third of the five highest cases of child abuse (David Setyawan dalam www.kpai.go.id/berita/kpai-pelaku-kekerasan-terhadap-anak-tiap-tahun-meningkat/, 14 Juni 2015)

Evidence of violence committed by teachers, especially primary school teachers, can be seen in the following examples. In 2016, Dandi Gunawan, a sixth grader in elementary school, was suspected of being a victim of his teacher's violence at the SMP 19 School in Medan Pancasila Street. The victim's hand was swollen until he was swollen by using the pen

by his teacher because he did not follow the instructions of his teacher to read "Iqra" (<http://waspada.co.id/medan/murid-kelas-6-sd-diduga-korban-kekerasan-guru/>). Still in the same year, a teacher who had the initials Pnw (35) in one of the elementary schools in Panusupan, Rembang Sub-district, was also allegedly beating his head and kicking his stomach to his students with the initials Hx (9) (<http://radarbanyumas.co.id/sidang-kasus-dugaan-kekerasan-guru-terdakwa-tidak-sengaja-menendang-korban/>, Sabtu, 13 Agustus 2006).

While in 2017, students with the initials GPR who were just sitting in grade IV elementary school became victims of the violence of their sports teacher, Singgih Priyo Hardianto. The little girl was hit in the head when stopping her sports movement due to fatigue. The victim was hit using a broom handle. The first blow was responded to by the victim. That obstacle made Singgih beat the victim's head again until he bled (reported-polisi <https://m.detik.com/news/berita-jawa-timur/d-3416935/kasus-oknum-pukul-siswi-sd-tidak-dil>, Wednesday, February 8, 2017).

These facts are a small part of the conditions that show the violence committed by teachers to their students is at an alarming level. Besides having a bad impact on students' physical health, this violence can be a trauma to the victims. Because of the mental stress he experiences, it allows the child to be a closed, anxious, or insecure person. In fact, it does not rule out the possibility that one day the child will commit the same violence to others. They assume that violence can be used as a way to fulfill their desires.

Seto Mulyadi explained that there are still many teachers or schools who argue that they abuse their students for reasons of discipline. This was also expressed by KPAI (in liputan6.com) that the strong reason for the teacher to commit violence against his students was as a disciplinary effort, especially for naughty students. While the other reason is because the teacher experiences a heavy life pressure, both related to social welfare, professional life (for example teaching more

than one subject), to psychological stress that encourages violence against children.

In addition to the pretext of discipline and reasons for life pressure, the number of cases of violence committed by teachers against students also relates to mastering teacher competencies. One of them is personality competence.

In Law Number 14 Year 2005 concerning Teachers and Lecturers article 10 paragraph (1) explained that teacher personality competencies include a strong personality, noble character, wise, authoritative, and a model of students. It was then strengthened in Article 3 paragraph (5) of Government Regulation Number 74 of 2008 concerning Teachers which stated that *indicators of a teacher's personal competence include at least personalities that (a) have faith and fear, (b) have a noble character, (c) wise and wise, (d) democratic, (e) steady, (f) authoritative, (g) stable, (h) mature, (i) honest, (j) sportive, (k) an example for students and society, (l) objectively evaluate their own performance, and (m) develop themselves independently and sustainably.*

Furthermore, in the attachment of Permendikbud Number 16 of 2007 concerning Competency Standards and Teacher Qualifications, the Teacher described *Core Competencies are from the aspects of teacher personality competency, namely (1) acting in accordance with the national norms, law, social, and cultural Indonesia, (2) presenting themselves as a person who is honest, noble and exemplary for students and the community, (3) presents himself as a steady, stable, mature, wise and authoritative person, (4) demonstrates a high work ethic, a sense of pride and self-confidence, (5) uphold the ethical code of the teaching profession.*

From these explanations, it appears that teacher personality competence is closely related to the teacher's attitude when teaching and teacher's emotional maturity. In other words, acts of violence committed by students against students can be caused by the lack of maturity of teachers' personality competencies. As ordinary people who can get angry at times, the teacher also needs to have emotional control so that his anger does not hurt his students. That

is one of the challenges of being a teacher, namely having to have extra patience in educating their students.

Based on this background, research on the efforts of elementary school teachers in developing personality competencies is important to be examined. The importance of mastering personality competencies can be used as a shield for teachers to avoid acts of violence against students.

METHOD

This study used a qualitative approach, with interview as a data collection method. This study used *random sampling*, namely elementary school teachers in Jakarta were randomly selected with *snowballing* technique (Sugiyono, 2013: p. 384).

In analyzing qualitative data, researchers will conduct three steps, namely the reduction of the data (*data reduction*), presentation of data (*data display*), and the conclusion (*conclusion*) (Sugiyono, 2013: 404). In reducing data, the researcher will summarize, retrieve key and important data, making categorization guided by the research objectives to be achieved. After reducing the data, the researcher will present the data in the form of brief descriptions, charts, relationships between categories. After displaying the data, the researcher will conclude the results of the research based on existing evidence.

RESULT AND DISCUSSION

Research Findings

Description of the data of efforts of primary school teachers in developing their personality competencies will be explained from the results of interviews.

A) Efforts to Develop Personality Competence.

a. Practicing religious teachings

The efforts made by teachers to develop personality competencies are to practice religion seriously. As in the following interview

TM: *...starting last month, the month of Dhu al-Hijjah has begun to*

thank God that it can fast Monday-Thursday.

TM: *It's the same too.*

TM: *Yes, every time I prayed in*

Tune with TM, SAH also practiced his religious teachings seriously. Here are the excerpts of the interview

SAH: *..... ..I tried to pray five times full time. Maybe if you were in the past, now if you can call the adhan, I go straight to the musala; pray right away.*

SAH: *....., either read a book or read the Quran like that. So, the empty time is filled with positive things.*

SAH: *There is an effect, sir. So, I'm afraid of lying, I'm afraid of sin.*

SAH: *Yes, besides that, there is a feeling of more diligence, more piety again. Not like before. In the past, there was still courage, "Ah, just pray through it." If it's like feeling now, "Ouch, what is the prayer? What do I do not pray this yet, "or no Zuhr prayer or anything. There is fear. If the change is, so be more, care more about religion, be more diligent.*

Both TM and SAH develop their personalities through religious practice earnestly, whether it is recommended practice such as tahajud prayer, fasting Monday - Thursday, reciting the Koran, or even obligatory practices such as five daily prayers. Practicing religious teachings really does have an impact on someone's attitude.

b. Self reflection / self-reflection

This effort is carried out by the informant to become a teacher with a better personality. Self-reflection or self-introspection will help someone see if what he has done is the right and appropriate step or not, as it was done by SM. The following is the excerpt of the interview,

SM: *Because I have to see all the problems it must be deliberated, especially at home there is a husband who is a leader. I can't, my wishes must always be obeyed, it's not permissible. Well, that slowly began to be lowered. Likewise in school, it started.*

SM: *..... Now, this little thing I know. Finally "Oh, yeah. When I put it this way it turns out my son does not like, it means that my child at school does not like. "... .."*

So SAH, said that self-reflection and self introspection can develop his personality

SAH: *That gini. The more we mature like things that are not important or the things that we have to change, then we must change with ourselves. The more mature we must be better than before, in terms of nature, attitude. So. Let me distinguish compared to past and present.*

SAH: *If what I remember the most is how to control those emotions if for example we are resentful with that person, do not immediately reveal them using words that can make their hearts hurt. So, it's better we find out first, we introspect first on ourselves, who knows we are wrong.*

Self-reflection and self-introspection are carried out by SM and SAH to become better individuals. This self-reflection and self-introspection includes the position of oneself, as SM does not become selfish after marriage, where the position of the husband is the leader so that SM becomes aware of themselves. In addition, SM also becomes better after reflecting on his child's response. SAH does self-introspection to look back at what it has done.

c. Active Community / routine religious activities

Active participation in community activities both in religious activities and in other activities also has an impact on the

development of personality competencies. As with the following interview footage:

TM: *... The study is also the most once a month,*

TM: *In the home environment. Then, sometimes from the foundation there is also*

TM: *There. There were those who I did not know about remembrance to know useful remembrance, daily remembrance ...*

In line with TM, SM also followed the activities of the school community namely routine recitation. Here's the interview excerpt:

SM: *... .. That's once a month, sir. Once a month there was a recitation from the committee, called from outside. From the outside, for example the Islamic religious watchdog.*

Actively participating in community activities in the form of routine religious and other activities can develop teacher's personality competencies. As stated by TM that routine activities in the form of recitation will provide inner peace with readings or dhikr that he reads. However, according to SM, routine activities like that can develop a person's personality even though it is not too significant.

d. Read books / writings about self-development

Reading books will help teachers to develop personality competencies, especially for SAH. The following is an excerpt of the interview:

SAH: *Read any book, such as student children's textbooks or self-development textbooks or textbooks about religions such as*

SAH: *The title of the book is not wrong, what is it, "How to Get it ..." I forgot, sir. "The Right Way to Become a Successful Person", if I'm not mistaken,*

Besides reading a printed book, SAH also reads blogs, along with the interview excerpts:

SAH: *For example, how do you organize your emotions, or how to make people not hurt us. So. I like to search on the internet.*

Reading books or writing articles / blogs about self-development and then applying will indeed help develop the teacher's personality competencies. How much is done by SAHs who have accessed someone's blog on the internet and read blogs about controlling emotions.

B) The Constraints Faced by Teachers

From the informants who were interviewed in depth, there were almost no problems, except for the natural obstacles by SM. Here's a snippet of the interview:

SM: *If so far it's been a habit that Friday doesn't seem to change the teacher significantly, why? Because the one delivered was his friend., unless we call someone ... That's once a month, sir. Once a month there was a recitation from the committee, called from outside. From the outside, for example the Islamic religious watchdog.*

SM: *Sometimes like this, sir. When I want to be better it sometimes feels bad, the feeling is bad.*

SM: *It's not good, for example like this. I teach the children like "After eating, we pray first." That's my class. Someone asked, "What are you doing, my classmates?" "Prayed for prayers, Madam." "What's the child ..." Something like that. Sometimes I don't like it right. So. Disappointing*

From what was conveyed by SM, the obstacle he experienced was being underestimated by a friend when conveying one good. This happens because those who convey goodness are their

own friends, so the thing that is done is by calling people from outside the school committee or someone from the DKM a place of worship. In addition, the obstacle experienced by the teacher is the scorn from colleagues when the teacher invites to goodness. This means that colleagues at school do not provide support or support for teachers who want to develop personality competencies.

CONCLUSION

A. Conclusion

Based on the results of the research and discussion that has been done, it can be concluded that the

1. model or form of teacher personality development includes the practice of religion seriously, whether it is recommended practice such as tahajud prayer, fasting Thursday, reading the Koran, or even the obligatory practices such as praying five times. Practicing religious teachings really does have an impact on someone's attitude. In addition, self-reflection and self-introspection include self-position, and self-introspection to look back at what he has done. In addition, actively involved in community activities in the form of routine activities both religious and others can develop teacher's personality competencies because routine activities in the form of recitation will provide inner peace with readings or dhikr that he reads. And other efforts made by the teacher in developing personality competencies are reading books and accessing someone's blog on the internet and reading self-development blogs and applying them, such as about how to control emotions, How to Become a Successful Person
2. The obstacle he experienced was being underestimated by a friend when delivering one goodness. This happens because those who convey goodness are their own friends, so the thing that is done is by calling people from outside the school committee or someone from the DKM a place of worship. In addition, the obstacle experienced by the teacher is the scorn from colleagues when

the teacher invites to goodness. This means that colleagues at school do not provide support or support for teachers who want to develop personality competencies.

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Teacher Ability in Applying the Professional Competence in Primary

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Abstract:

This study aimed to describe the teacher's ability to apply professional competencies in school set by regulation of Minister of Administrative Reform and Bureaucratic Reform No. 16 of 2009 and its supporting factors and constraints experienced by the teachers. This research is descriptive qualitative. Participants of this study consisted of teachers, principals, and students. Data collection techniques using observation, interview and documentation. The results showed that teachers have fulfilled indicators in applying professional competencies as set out in the Minister for Administrative Reform and Bureaucratic Regulation Number 16 of 2009.

Keywords: *Teachers, Professional Competence*

INTRODUCTION

Teachers become a central component in the educational process at school. The presence of the teacher in the learning process has an important role as role models for their students. The social aspect that can not be replaced with other media as well be one of the considerations the importance of the role of the teacher.

Moreover, from this, the teaching profession is someone who has been through a process of education that focus on education is teacher training. There is a deepening process materials related to the concentration of the teacher.

Supriyadi, said (1998, p. 96) "Profession refers to a job or position that requires expertise, responsibility and loyalty to the profession". In line with these opinions, "Professional knowledge enables them to embrace a social constructivist pedagogy

Because this perspective embeds the understanding that learners" (Neeta & Klu, 2013, p. 258), The importance of professional knowledge as a basis for building social relationships with learners.(Zakirova, 2016, p. 1171) argued that "A fundamental element in the structure of primary school teachers professional competence is a professional and personal component."

Once the importance of the role of teachers in improving the quality of education, the condition is actually complained lately. (Kulshrestha & Pandey, 2013, p. 30) state that, "*Competency standards are concerned with the application of professional knowledge and skills within the workplace and are underpinned by teachers' professional values. Each competency standard is a statement of the level*

of competency a teacher exhibits for that dimension. "

Teacher as a role model in the implementation of education deserve serious attention and treatment in order to prepare a good role model for students and society in general. (Kordestani, Aghdam, and Daneshfar, 2014, p. 181)states that "The continuous professional development is a process in the which teachers learn the skills and knowledge Necessary for effective classroom. This process is continuous and stable and it is a rational response to changing environmental conditions "It is based on a self-evaluation in the process of performance improvement. Teachers like other professionals need to update Reviews their skills and knowledge base in the case of teachers Reviews their pedagogical skills and content knowledge(Sachs, 2007, p. 9),

The importance of ongoing evaluation to be teachers will affect the level of professionalism of the teacher. (Sengottuvel, Nadu, & Nadu, 2015, p. 181)"Quality of teaching determines the quality of education. The teacher, his / her personal qualities, attitude and dedication towards teaching profession, educational qualification and professional training etc. play a vital role in modern education ". The opinion has clearly stated that the quality of teaching related to the quality of education. Opinion was supported by the(Marinkovic, Bjekic, & Zlatic, 2010, p. 1)states that "The first step in the teacher's reflective thinking and behavior is the recognition of what competences he / she needs and how well he / she is qualified for them". The first step is to understand the competencies needed, and how well its competence.

The existence of a professional and competent teachers is a necessity to facilitate the achievement of learning objectives. Professional teachers figure reflects the wide horizon and has a number of competencies that support its work.

As a professional teacher, then the teacher is required to have competence. Teachers with the quality of human resources

and have high professional competence in teacher acts as a determining factor for quality of education in addition to other factors that are equally important. So, every teacher should have the professional competence of the teacher education whatsoever. Additional competencies that must be owned by a teacher is personal competence, pedagogical, and social competence.

Based on this background, researchers interested in conducting a study with qualitative method, which in this study the authors tried to raise an issue that is how the readiness of the professional competence of graduates of primary school teaching.

LITERATURE REVIEW

A. Teacher Profession

1. Professional Teacher

Profession can be obtained through their education and training with a long time. Teacher as a profession means the teacher as a job that requires competence (expertise and authority) in education and learning in order to carry out the work effectively and efficiently and effective.

Usman (2011: 6), saying that the teacher is a profession or occupation that requires specialized skills as a teacher. This job can not be done by people who do not have the expertise to carry out activities or work as a teacher.

Teachers also giving a boost so that students dare to do right, and familiarize them responsible for his actions. For that the teaching profession is very demanding patience, creativity and professionalism.

2. Teacher Roles and Tasks

Education management and teaching output is expected to contribute to quality education through teacher who really professional.

The role of the teacher is a dynamic aspect of their position or

status. Position is defined as a set of behaviors that should be done by someone as the expectations of others. A person who occupies a certain position required to meet the expectations in carrying out its role. Law Number 20 Year 2003 Chapter 1 article 1, paragraph 5 states that educators are community members who are devoted and raised to support education.

3. Teacher Professional Competence

Professional competence of teachers stated in Law No. 14 Year 2005 on Teachers in Chapter IV of Part unity Article 8, that "teachers are required to have the qualifications, competence, and educator's certificate, physically and mentally healthy, and have the ability to realize the goal of education national". A teacher must have competence in order to carry out the duties and responsibilities well. Teacher competency is the ability of a teacher to implement the obligations in a responsible and feasible.

Competence can be understood as a skill or ability. Competence is also interpreted as ownership, assignment, skills and abilities that are required of one's position, then the teacher must possess the competence of teachers.

In line with Suherman (2014: 145) explains that the profession training program shows the increase of the competence of the source, indicated by a change in classroom management and teaching her skills significantly from the initial data. Therefore, the level of professionalism of the teacher can be seen from the skills and abilities they have.

METHOD

The research approach used in this study is a qualitative approach. This study used

qualitative research methods. Creswell (2013: 352) states that qualitative research is a tool to describe and understand a meaning that is found from individuals and groups on social issues or individual issues. This research activity conducted in public elementary school in Karanglo Cilongok District of Banyumas. Selection of place or location research considered by the finding teachers who have high dedication to education and have the professional competence. Study participants who were targeted in this study is a sixth grade teachers, principal, fifth grade teacher, first grade teacher and the students of class VI.

In qualitative research, the researcher is the key of the instrument itself (key instrument). Researchers will be in the study site to perform data collection. The technique of collecting data through observation, interviews and documentation. Methods of data analysis using qualitative data analysis by Miles and Huberman (in Sugiyono, 2010: 91) that is data reduction, data display, and conclusion drawing / verification.

RESULTS AND DISCUSSION

The discussion of the competence of teacher professionalism is closely related to the discussion about the standard of knowledge owned by the teacher itself. Therefore it can be concluded that professional teachers must have knowledge fields. Standards of teachers refer to the competence of professional teachers. The Government has decided on four types of teacher competence as stated in Government Regulation no. 19 of 2005 on National Standards of Education namely professional competence, social, pedagogic and personality. Similarly, it is described in Law Number 14 Year 2005 and Regulation of the State Minister of Administrative Reform and Bureaucracy Reform Number 16 Year 2009 regarding Teacher Functional Position and Credit Score that teacher competence includes professional competence, social competence, pedagogic

competence, and personality competence obtained through professional education.

Furthermore, researchers presented data based on the study of the theory of the study as follows:

Application of professional competence as stimulated in the Regulation of the Minister of State for Administrative Reform and Bureaucratic Reform No. 16 of 2009.

In accordance with the purpose of this research is to know the teacher's ability to apply professional competencies in primary school, researchers are looking for data to claim that teacher able to apply professional competencies which are divided into two competencies. The first professional competence that is mastery of the material, structure, concept and mindset of the knowledge support of teaching subjects.

Teachers act as the manager of the learning process so that teachers have to think and make the learning plan carefully. Preparation of teaching and learning activities, for example, teachers are doing a standard mapping and basic competencies of the syllabus to the RPP to identify difficult learning materials so that the allocation of instructional time may also be considered. Tteacher argued that:

"The main thing so we check out the syllabus and then developed into the lesson plan, there is the evaluation of learning objectives also exist. Well, wait evaluation results were analyzed to see the degree to which the child's ability. For example, many children are fail in working on this it can be seen that one teacher who delivered material are too fast or students are unclear or she is told to ask but did not want to ask ". (HY)

Based on the above excerpts of the interview, the researchers interpret that teaching and learning will go well if it has been well prepared both in terms of materials, implementation and evaluation of learning. Usman (2011: 21) argues that teachers should develop lesson plans carefully to enhance the

learning opportunities for students and improve performance in teaching. Subject is a teacher who is able to prepare a good learning, it is supported information presented by other subject:

"According to my observations subject it is good in planing lessons. Ranging from making a promissory note, yearly program, syllabus and lesson plans, he has mastered in arranging the learning plan, right? "(MD)

The foregoing proves that teacher are able to implement the first professional competence, namely mastery of the material, structure, concept and mindset of the scientific support of teaching subjects. This is further strengthened by the support of the statement delivered by the subject responden.

The second competency of professional competence is developing professionalism through reflective action. This competence can be seen from the six indicators. The indicators are,

- 1) Teacher perform specific self-evaluation, complete and supported by example experience theirself;
- 2) The teacher has a learning journal, notes from colleagues or learning assessment results as evidence that describe performance;
- 3) Teachers take advantage of the performance picture evidence to develop Sustainable professionalism;
- 4) The teacher can apply continue assesment evaluation of experience in stats, implementation, and follow-up assessment of learning;
- 5) Teachers doing research, develop innovative works, following scientific activities (seminars, conferences) and active in carrying out CBA;
- 6) Teachers can utilize to communicate and implementation of ICT on learning.

The sixth indicator can be applied by teacher.

This is evidenced by the many activities that have been followed by HY such as education and training, seminars, and research that he has done in order to fulfill the requirements that level indicate that teacher is a professional teacher in carrying out their responsibilities.

Subject is a teacher who is able to evaluate himself based on the results of his performance, besides that subject also clings to the Main Tasks and Functions. It is natural for a teacher to know and always remember the main tasks and functions that must be carried out. By realizing the main task, a teacher has the right to be called a professional teacher. Subject revealed that:

"In relation to my work as a teacher, I have evaluated it because I have been teaching it in grades IV, V, VI. Finally in class VI, if the class VI has mastered it means that I automatically have an evaluation oh that means I have a good learning. I can transfer, I can deliver material that I have mastered to students. Then you can also with the closeness of the child, the child is very respectful not with the teacher. If a child doesn't suit me, am I too hard or what, that is for students. If I evaluate the performance in general, 'Inshaallah' is in line with what the government expects. The point is that the teacher is the teacher." (HY)

Adams et al in Usman (2011: 12) states that as evaluators, teachers should constantly follow the learning outcomes that have been achieved by students from time to time. Information obtained through this evaluation is feedback on the teaching and learning process. This feedback will be used as a starting point to improve and improve the next teaching and learning process.

Besides being able to evaluate the results of their own work, a teacher must receive constructive input from those around him to

obtain maximum results. The same thing is supported by the statement stated by other subject as the principal and policy maker at the school stating that subject is a wise and open person to the input given to him.

"Yes, the person is always open, willing to accept criticism from anyone from both the principal and his friends for improvement." (MD)

The statement further strengthened the statement given by subject. In addition to seeing the success of his teaching, subject also conducted a self-evaluation by looking at the results of his performance evaluation. In one school year, at least two performance assessments are conducted, namely the beginning of the school year and the end of the school year. This means that every semester the teacher will be assessed for performance. Subject performance appraisal was carried out by the principal. Other subject states that:

"After he knew the PKG value, he was the best compared to other teachers here. He always innovates in learning, essentially he is very all out to the class to get better results." (MD)

The above statement proves that subject is a teacher who is able to evaluate himself specifically, completely, and supported by examples of his own experience.

In addition to both the professional competence This study also discusses the supporting factors and obstacles encountered by subject for carrying out their professional competence. The supporting factors in implementing this competence is the strong will of themselves a teacher, in addition to the support of the family becomes its own power for subject in carrying out its duties and responsibilities. While the problem is the difference factor competencies possessed by each child. The existence of these differences requires teachers to understand the

competencies and characteristics of each child properly. Based on the description of the discussion can be concluded that a professional teacher must have competence that can show the criteria of good teachers, namely:

- a. Able to do a certain job rationally.
- b. Mastering the tools of knowledge (theories and concepts, principles and rules, hypotheses and generalizations, data and information, etc.) about the ins and outs of what is the field of work assignment.
- c. Master the tools of skills (strategies and tactics, methods and techniques, procedures and mechanisms, tools and instruments, etc.) on how and where to do their job duties.
- d. Understand basic set of terms of normative feasibility of minimum conditions of tolerable processes and acceptable performances of acceptable criteria.
- e. Have the power (motivation) and image (aspiration) superior in doing the job task.
- f. Have authority (authority) that radiates over the mastery of the competence devices that within certain limits can be demonstrated and tested, so as to gain recognition of the authorities.

The existence of professional and competent teachers is a necessity to facilitate the achievement of learning objectives. The professional teacher reflects his teacher's figure with broad insight and has a number of competencies that support his task. This competence is a description of qualification or ability of teachers, both qualitatively and quantitatively.

As a professional teacher, the teacher must have competence. Teachers with high quality of human resources and professional competencies have a role as a determinant factor of quality of education quality in addition to other factors that are equally

important. Thus, every teacher should have professional teacher competency in any educational level. Other competencies that must be possessed by teachers are personality competence, pedagogic competence, and social competence.

CONCLUSION

In essence, the teacher is a strategic component that has an important role in determining the progress of nation's life. The existence of teachers in the life of the nation since the first even to the contemporary era can not be replaced by other components. Teacher becomes an important component for a nation, especially for developing nation.

Mastery of the material, structure, concept and pattern keilmuan supportive of teaching subjects. Subject has met this indicator of professional competence, proven by the belief that HY is a senior teacher of professional and experienced since HY is so good facilitator national level in classroom management and teaching.

Developing professionalism through reflective action. Of the six indicators of professional competence is already meet the standards, evidenced by the many activities that have been followed by the subject such as education and training , seminars, and research that he has done in order to fulfill the requirements level indicating that subject is a professional teacher in carry out their responsibilities.

The supporting factors in applying professional competence in addition support of the family will becomes power for subject in carrying out its duties and responsibilities. While the problem is the difference factor competencies possessed by each child. The existence of these differences requires teachers to understand the competencies and characteristics of each child properly.

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Teachers' Competencies, Incentives, and Performance of The Teachers of Elementary Schools

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Abstract

This study aimed to find out whether or not there is a relationship between competencies, incentives, and performance of elementary school teachers in Manado City. It is also measured that the extent of contribution of each independent variable on dependent variable.

The population of this study was the elementary school teachers in Manado city and that that was those who had the government's letter of decision as civil servant. The samples are 70 elementary school teachers taken from 20 elementary schools which were determined by cluster sampling method. The instrument of this study are questionnaires which underwent a try-out and met the requirement for validity and reliability. The data are treated with descriptive analysis, correlational analysis, and regression analysis aided by computer software SPSS version 17 for windows.

The results of descriptive analysis revealed the following: (1) the variable performance of elementary school teachers of Manado city is categorized as good, even though 50% of them are below average. (2) the competencies of elementary school teachers in Manado City is categorized as good and less than 50% are above average. (3) the variable incentive was perceived by 50% of the respondents as being good in line with the local schools.

The tests of the hypotheses showed that: (1) there is a strong and significant relationship between competencies and performance of the elementary school teachers in Manado City. The teacher's competencies contributed 37.8% to the performance. (2) these teachers in Manado City; yet the contribution of incentive is only 6.2% to the performance of teachers. (3) the simultaneous relationship of the two independent variables (competencies strong and significant. The contribution is 40.1% to the performance and the remaining 59.9% is contributed by other variables.

Keywords: *teachers' competencies, incentives, performance*

INTRODUCTION

Some efforts to improve the quality of primary schools have been very urgent. Without an improvement in the quality of basic elementary schools, efforts to improve the quality of junior and senior high school level up to tertiary education will not succeed optimally. Primary school occupies a very vital and

strategic position. Errors and inaccuracies in carrying out education at this basic level will be fatal for the next level of education. Conversely, the success of education at this level will result in the success of advanced education. However, various parties actually place basic education lower than other levels of education.

Primary school teachers as the spearhead of the success of forming a quality future generation, it seems that they really have to have high professional abilities and attitudes so that their abilities and professional attitudes can work seriously in educating the nation's cadres in a quality future. Because elementary school teachers work in the field of education, elementary school teachers who have professional abilities must have a professional attitude in the field of education, in order to improve their educational work performance, namely the quality of students, both psychologically and mentally. In the end it will reflect a teacher who is able to work professionally and has high professional competence.

The Regulation of the Minister of National Education of the Republic of Indonesia Number 16 of 2007 states that Teacher Competency Standards are fully developed from four main competencies namely; pedagogical competence, personality competence, social competence, and professional competence. The fourth competency integrated in teacher performance.

Competence is very important in determining the quality of one's work, including elementary school teachers. Competency standards for elementary school teachers are the minimum criteria that must be met by a teacher so that he is capable and worthy of carrying out his duties as an elementary school teacher.

The teacher is one of the determinants of the high and low quality of education. The success of the implementation of education is largely determined by the level of readiness of the teacher in preparing students through teaching and learning activities. However, the teacher's strategic position to improve the quality of education is strongly influenced by teaching professional abilities and the level of welfare.

Teacher performance will be optimal, if it is integrated with the school component, whether it is the principal, teacher, or students. Teacher performance will be meaningful if accompanied by a clean and sincere heart and

always aware of the shortcomings that exist in him. Today's performance will be better than yesterday's performance, and of course the future performance is better than today's performance (Isjoni 2004: 1). Without improving teacher performance, all efforts to improve education will run aground. The existence of a good curriculum, a complete library, sophisticated laboratories, the availability of computers and the internet will have no meaning in improving the quality of education if the teachers are not qualified and do not love their profession.

Broadly speaking, the factors that influence a person's performance can be divided into two, namely intrinsic factors (which originate from within a person) such as talent, character or traits, interests, age, gender, education, experience, motivation, etc. and extrinsic factors (originating from someone outside) such as the physical environment, facilities and infrastructure, leadership management, working conditions, incentive systems, atmosphere, policies, administrative systems, and others. In this study examined the factors that affect performance both from someone outside (extrinsic) and from someone inside (intrinsic), namely the competence of teachers and incentive systems that exist in school.

Some problems that can be identified in this case are; (1) teachers often leave class during teaching hours, (2) teachers often arrive late and leave early, (3) teachers seem to make daily preparations, (4) less teachers create conducive psychological conditions (5) have not created conditions physical learning space and the provision of good teaching aids, (6) the principal's interpersonal relationship with the teacher is not good, (7) there are still many teachers who have not mastered information technology, (8) teachers rarely use technology and communication for learning purposes, and (9) the emergence of apathy of the teachers to carry out their duties in class because of the perception that there is no difference between the appreciation of teachers who excel and those who do not.

Some of the problems obtained are the reasons for researchers to conduct research on teachers in elementary schools, especially in the city of Manado. Because the high and low performance of the teacher can be used as a benchmark for the success of elementary school in carrying out their duties and functions. Because of these factors improving the quality of education through efforts to improve the performance of primary school teachers both by teachers, the school and the government and / or the national education office in Manado City can be optimally implemented.

REVIEW OF LITERATURE

Competence is a description of the qualitative nature of one's behavior. According to Lefrancois (1995: 5), competence is a capacity to do something, which results from the learning process. During the learning process the stimulus will join the contents of the memory and cause changes in the capacity to do something. If individuals succeed in learning how to do one complex job than before, then in that individual they must have changed their competence.

Competence is defined by Cowell (1988: 95), as an active skill / skill. Competencies are categorized from a simple or basic level to more difficult or complex which in turn will relate to the process of preparing materials or learning experiences, which usually consists of: (1) minimum mastery of basic competencies, (2) basic competence practices, and (3) addition of improvements or development to competencies or skills. These three processes can continue as long as there is an opportunity to improve or develop their competencies.

Based on constitution number. 14 on 2005 states that: "Competence is a set of knowledge, skills, and behaviors that must be owned, internalized, and mastered by the teacher or lecturer in carrying out professional duties". Teacher competency can be interpreted as roundness of knowledge, skills and attitudes in the form of intelligent and responsible actions in carrying out tasks as agents of

learning. Furthermore, in Article 28 of the Government Regulation No. 19 of 2005 stated that: Educators must have academic qualifications and competencies as agents of learning, physically and mentally healthy, and have the ability to realize national education goals. Academic qualification is the minimum level of education that must be fulfilled by an educator as evidenced by a diploma and / or certificate of relevant expertise in accordance with applicable laws and regulations. Competence as an agent of learning at the level of primary and secondary education includes: pedagogical competencies, personality competencies, professional competencies, and social competencies.

Competency standards for elementary school teachers are the minimum criteria that must be met by a teacher so that he is capable and worthy of carrying out his duties as an elementary school teacher. In SD / MI Class Teacher Competency Standards Graduates of PGSD S1 issued by the Directorate General of Higher Education in 2006, competency standards are formulated in four competency clusters, namely: (1) ability to know students; (2) mastery of the field of study; (3) the ability to carry out educational learning; and (4) the ability to develop professional abilities on an ongoing basis. Changes in competence will not appear if there is no interest or opportunity to do so. Thus it can be interpreted that competence lasts long which causes individuals to be able to perform certain performance.

Performance is the embodiment of competencies that include ability, motivation to complete tasks and motivation to develop and motivation to manage environmental conditions. Campbell et al. cited by Cascio (1998: 43) argues that "*Performance may be defined as observable things people do that are relevant for the goals of the organization...*" next, Byars & Rue (1991:250) put forward that: "*Performance refers to degree of accomplishment of the tasks that make up an individual's job. It reflects how well an individual is fulfilling the requirements of a*

job". According to Gomes (1997: 177) a person's performance will be related to two main factors, namely the willingness or motivation of the employee to work, which raises the business of employees and the ability of employees to carry it out.

The system of giving incentives tends to have an impact on a person's behavior in achieving effective work results. According to Paul Bennel (2004: iv) Incentives for schools and teachers in the public education system to perform well are often weak due to ineffective incentives and sanctions. As stated by Dessler (1997: 438) "there is nothing new about using incentives to motivate workers"

Based on Research on Incentive influences as a motivator published in the "Academy of Management Journal" in Mathis & Jackson, (2006: 459) the results of the study found that the regular salary approach to performance improved performance by 11%, but the money incentive approach improved performance by 32 %. While the social recognition approach increases performance by 24%, and the performance feedback approach is as much as 20%. Overall, the results of the study indicate that salaries can actually improve performance, but it seems most successful if given in contingencies.

RESEARCH METHODS

This study uses an ex post facto approach, meaning that a study is conducted to examine the events that have occurred and then trace back through data to find the factors that precede or determine the possible causes of the event under study (Sugiyono, 1992: 3) The reason why researchers use this approach, that the teacher's performance referred to in this study is the optimal work done by the teacher so far, and will see what factors influence it while carrying out work as educators in primary schools, especially in Manado City.

The analysis technique used in this study is correlation analysis and regression analysis. Pearson product moment correlation analysis technique is used to determine the degree of

relationship and contribution of independent variables to the dependent variable. But because the variable has a functional relationship and causal relationship, the correlation analysis is followed by regression analysis (Riduwan, 2009: 96-97). Basically according to Riduwan correlation analysis and regression analysis have a very strong relationship and have closeness.

Terms that must be met if the Pearson product moment correlation analysis is used, namely: (1) the data is normally distributed, (2) the data connected in a linear pattern, and (3) the connected data has the same pair in accordance with the same subject (homogeneous). If one is not fulfilled, correlation analysis cannot be used (Riduwan, 2009: 80). Therefore, before testing the hypothesis with correlation and regression analysis, the normality test, linearity test and homogeneity test are first carried out.

RESULTS AND DISCUSSION

Statistically descriptive analysis of the three variables in this study, namely teacher competency, incentive giving and performance of elementary school teachers in the city of Manado are still classified as good. But the percentage shows different things. Teacher competency and the performance of elementary school teachers in the city of Manado score is still below the average score, in this case it has not reached 50%. This means that there are still many teachers whose competencies and performance are still below the average teacher in Manado. Different realities are shown by teachers' perceptions of providing incentives to elementary school teachers in the city of Manado. The results of the analysis show that the score is above the average score, in this case more than 50% shows a good perception of giving incentives. This is certainly understandable due to the increasing attention of the government regarding the welfare of teachers. Both through teacher certification programs by the central government as well as regional performance allowances by local

governments and various forms of incentives provided by schools.

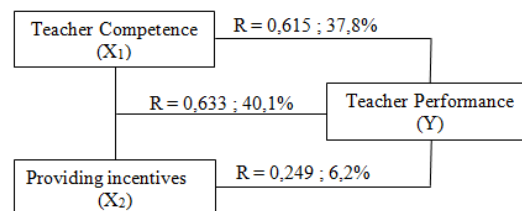
The results of testing hypothesis I show that there is a significant relationship between teacher competency and the performance of elementary school teachers in the city of Manado. Variations that occur in the performance of primary school teachers 37.8% are determined by teacher competence. The relationship between teacher competency and the performance of primary school teachers in Manado city has a positive direction, because the analysis results show a regression equation $\hat{Y} = 47,711 + 0,615X_1$. The performance of elementary school teachers will increase by an average of 0.615 for each one score increase in teacher competency.

The results of testing Hypothesis II show that there is a relationship between providing incentives with the performance of elementary school teachers in the city of Manado. The results of the analysis show that the variation that occurs in the performance of elementary school teachers by 6.2% is determined by the provision of incentives to teachers. The relationship between giving incentives and the performance of elementary school teachers in the city of Manado has a positive direction, because the results of the analysis show a regression equation $\hat{Y} = 71.409 + 0.249X_2$. The performance of elementary school teachers will increase by an average of 0.249 for each one score increase in giving incentives. Its contribution is not too big but this is a positive thing because the perception of some teachers states that getting an incentive or not, they must carry out their duties and responsibilities as a teacher.

The results of testing the hypothesis III indicate that there is a simultaneous significant relationship between teacher competency and the provision of incentives with the performance of elementary school teachers in the city of Manado. The results of the analysis state that 40.1% of the variations that occur in the performance of primary school teachers in the city of Manado are determined jointly by

teacher competence and incentive provision. The test results obtained a regression equation $\hat{Y} = 26,217 + 0,572X_1 + 0,209X_2$. This regression equation shows a positive direction which means an increase or decrease in teacher competency variables (X_1) and giving incentives (X_2) will result in an increase or decrease in teacher performance (Y). Similarly, if we increase or decrease the variable X_1 by controlling X_2 or vice versa, it will result in an increase or decrease in variable Y .

The performance of elementary school teachers has increased by an average of 0.572 for each one score increase in the competence of primary school teachers by controlling the incentive variable. Also the provision of incentives has increased by one score by controlling the variable of teacher competence, the performance of primary school teachers will increase by 0.209. Furthermore, if there is an increase in the two variable variables (teacher competency and provision of incentives), then the variable performance of primary school teachers also increases.



Scheme on Results of Correlation and Regression Analysis

The increase that occurred in the performance of elementary school teachers caused by an increase in teacher competency variables in line with Law No. 14/2005 which states: "Competence is a set of knowledge, skills, and behaviors that must be owned, internalized, and mastered by the teacher or lecturer in carrying out professional duties". Teacher competency can be interpreted as roundness of knowledge, skills and attitudes in the form of intelligent and responsible actions in carrying out tasks as agents of learning. The same opinion was also expressed by Mulyasa (2004: 37). According to him, competence is

knowledge, skills and abilities that are mastered by someone who has become a part of him, so that he can do cognitive, affective and psychomotor behavior as well as possible. Saud (2010: 44) suggests that competency is seen as a pillar of teacher performance. Regulation of the Minister of National Education of the Republic of Indonesia Number 16 of 2007 concerning Academic Qualification Standards and Teacher Competence, suggests that teacher competency standards are fully developed from 4 main competencies, such as: (1) pedagogical competences, (2) personality competencies, (3) Social competencies, and (4) professional competencies. The fourth competency integrated in teacher performance. Teacher competency contributed 37.7% to the performance of elementary school teachers in the city of Manado.

For the increase that occurs in the performance of elementary school teachers caused by an increase in the variable giving incentives in line with the opinion of Desler (2005: 438) "there is nothing new about using incentives to motivate workers" means that giving incentives is the main tool to motivate employees. This means that by providing adequate incentives, an employee will perform seriously and with good quality. This is in line with the opinion of Paul Bennel (2004: iv) Incentives for schools and teachers in the public education system to perform well are often weak due to ineffective incentives and sanctions. This means that incentives for schools and teachers in the public education system work well are often weak due to ineffective incentives and sanctions. From this statement it can be seen, that the system of giving incentive tendencies will have an impact on a person's behavior in achieving effective work results. The provision of incentives contributed 6.2% to the performance of primary school teachers in the city of Manado.

CONCLUSION

Based on the results of data analysis in this study, some conclusions can be drawn as follows:

1. There is a meaningful relationship between teacher competence and the performance of elementary school teachers in the city of Manado. The direction of positive relations with the regression equation $\hat{Y} = 47,711 + 0,615X_1$, and the magnitude of the relationship of 0,615 or 37,8% of the performance of primary school teachers in the city of Manado is determined by teacher competency variables.
2. There is a meaningful relationship between providing incentives with the performance of elementary school teachers in the city of Manado. The direction of a positive relationship with the regression equation $\hat{Y} = 71.409 + 0.249X_2$, the relationship of 0.249 or about 6.2% of the performance of primary school teachers in the city of Manado is determined by the incentive variable.
3. There is a meaningful relationship between teacher competency and providing incentives with the performance of elementary school teachers in the city of Manado. The direction of a positive relationship with the regression equation $\hat{Y} = 26,217 + 0,572X_1 + 0,209X_2$. The relationship of 0.635 or about 40.1% of the performance of primary school teachers in the city of Manado is determined simultaneously by variables of teacher competence and incentive giving.

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Application of Tournament Team Game Model (TGT) to Improve Student Learning Results About FPB and KPK

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Abstract

This study aims to improve the learning outcomes of mathematics in elementary schools especially in FPB and KPK material by applying the Team Game Tournament (TGT) learning model. This research uses Classroom Action Research (CAR) method which refers to the opinion of Kemmis and Mc Taggart with 4 stages, namely: planning, action, observation, and reflection. The subjects of this study were fifth grade students of Catholic Elementary School Fr. Don Bosco Tomohon, amounting to 18 students. This research was conducted in two cycles. The results obtained in the first cycle reached 44,44%, while in the second cycle reached 88,89%. Thus it can be concluded that by applying the Team Game Tournament (TGT) model can improve student learning outcomes, especially in FPB and KPK material in class V SD Catholic Fr. Don Bosco Tomohon.

Keywords: *Model Team Game Tournament, Learning Outcomes, FPB and KPK.*

INTRODUCTION

Various efforts have been made by the government to improve the quality of education in Indonesia, such as improving the curriculum, training teachers and providing adequate facilities and infrastructure. In Law No. 14 of 2005, concerning Teachers and Lecturers, the government pays attention to educators by stipulating that it is necessary to conduct teacher certification for teaching staff in the framework of professional teachers.

As a professional, teachers are required to have a teaching ability that is displayed in the form of skills. In teaching and learning activities teachers are required to carry out effectively and efficiently because improving

the quality of education is not enough just by the efforts of the teacher in giving lessons to students but the activities and active roles of students are also very decisive towards the ignition of student learning outcomes. Many challenges or difficulties that must be faced by teachers in the teaching and learning process in the classroom to achieve quality and quality education especially teaching teachers at the elementary school level.

Education in elementary school aims to provide basic skills and abilities, namely "read-write-count", and basic skills that benefit students according to their level of development and prepare them for higher level education.

The primary school curriculum in both the 2013 KTSP and curriculum, especially for mathematics subjects includes competencies that require students to understand the biggest alliance factor (FPB) and the smallest multiple of alliances (KPK) from enumerated numbers. Here the teacher is required to have an important role and determine the success of student learning in school. Therefore, the teacher must carry out their duties and functions and try to implement various ways or strategies in order to achieve a goal in learning.

Based on observations on learning Mathematics, especially in the biggest alliance factor material (FPB) and the smallest multiple multiples (KPK) in class V SD SD Katolik Fr. Don Bosco Tomohon that in completing FPB and KPK it has not been implemented properly because students in solving FPB and KPK questions have not yet understood how to solve it by using formulas.

Of the 18 students who were able to achieve the KKM score only 3 students, while 15 students needed to improve their learning outcomes. If presented, the number reaching KKM only reached 16.67%. These learning outcomes are seen in the final test conducted by students during the implementation of learning. In the implementation of classroom learning the teacher does not involve students, so students only play and do not focus on participating in the learning process activities and especially in FPB and KPK students have not been able to solve how to solve problems using formulas. To solve this problem, the teacher must be able to use learning methods and models that are in accordance with the character of the students and the material to be taught.

According to Agus Suprijono (2010: 64) the learning model is a pattern that is used as a guide in planning classroom learning and tutorials.

According to Arends (Trianto, 2009: 41), the learning model is a learning model specifically designed to support student learning processes related to declarative knowledge and well-structured procedural

knowledge, can be taught with a pattern of activities that are step by step.

One learning model that can make students participate actively in the learning process in the classroom, especially in learning material about FPB and KPK is the Team Game Tournament (TGT) learning model.

The steps that can be taken in applying the Team Game Tournament model according to Salvin (Rusman, 2014: 225) are as follows:

1) Class Presentation

This presentation can be either direct learning or a lecture performed by the teacher, but can include audio-visual presentations.

2) Team

The team usually consists of 5-6 heterogeneous members seen from the academic percentage, gender, ethnicity. The team's function is to explore the material with the team and more that works well and optimally during the game.

3) Game

Consists of questions that are designed to test students' knowledge obtained from class percentages and learning in teams

4) Tournaments

Usually tournaments are conducted at the end of the lesson after the teacher has done the class percentage and the team after working on the student worksheet

5) Group awards

The teacher then announces the winning group, each team group will get a prize if they meet the average score and meet the specified criteria.

The teacher then announces the winning group, each team group will get a prize if they meet the average score and meet the specified criteria.

Based on the description above, in this study the authors are interested in conducting research by applying the Model Team Game Tournament (TGT) to improve the Mathematics Learning Outcomes of fifth grade students in Catholic Elementary School Fr. Don Bosco Tomohon.

The formulation of the problem in this study is whether the Application of the Model Team Game Tournament (TGT) can improve

the Mathematics Learning Outcomes of Grade V Elementary School Students in Catholic Fr. Don Bosco Tomohon?

This study aims to improve the learning outcomes of mathematics in elementary school especially in FPB and KPK material by applying the Team Game Tournament (TGT) learning model.

This research can be useful (1) for teachers as input to understand, implement and implement the Team Game Tournament (TGT) model to improve student learning outcomes; (2) for students to be more active in learning activities and can understand the material taught especially material about FPB and KPK by applying the Team Game Tournament (TGT) learning model; (3) for schools as a consideration for elementary school teachers to be able to design a Team Game Tournament (TGT) learning model that can improve the quality of education.

RESEARCH METHODS

This research uses Classroom Action Research (CAR) method with reference to the opinion of Kemmis and Mc Taggart (in Aqib Zainal, 2006: 31), In this study following the steps as follows: (a) planning, (b) action, (c) observation, and (d) reflection. The flow of this research can be seen in the picture as follows:

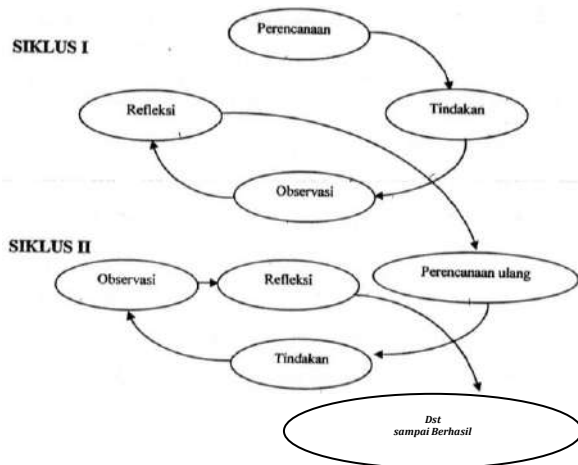


Figure 1. Classroom Action Research

The research subjects were the fifth grade students of Catholic Elementary School Fr. Don Bosco Tomohon, with a total of 18 students consisting of 8 men and 10 women.

The research procedure in this study consists of planning, action, observation, and reflection

Data collection techniques in this study include observation and tests

a) Observation, namely observation of objects by means of researchers obtaining data objectively, to monitor the activity of each student during learning, researchers are assisted by class teachers (peers) in observing, recording events during the learning activities taking place

b) Tests, used to see the results achieved by students after following the learning process. In this study the test used is a written test in the form of a question test.

The data analysis technique in this study uses the classical mastery learning formula:

$$KB = \frac{T}{Tt} \times 100\%$$

Information :

KB = Learning completeness

T = Number of students completed / KKM

Tt = Number of students taking the test

(Komara et al. 2016: 163)

Each student is said to have completed his study (individual completeness) if he reaches the KKM value ≥ 75 according to the KKM determined by the school. A class is said to be complete (classical completeness) if $\geq 85\%$ have reached KKM.

RESEARCH RESULTS AND DISCUSSION

Research findings

Cycle I

At this stage, what the researchers did was to take material that was in accordance with the 2013 curriculum, then prepare a lesson plan complete with learning scenarios that had been adapted to the Game Tournament Team

learning model that had been used. In the preparation of this RPP, there is cooperation with agreements between researchers, class teachers and principals so that the teaching and learning process can be well coordinated. Besides that, it also supports learning design prepared aids in learning, both teaching aids and evaluation tools, in addition there are also assessment instruments prepared to record various events that occur during the teaching and learning process takes place.

Student learning outcomes can be seen from the evaluation sheet carried out by students to measure the extent of improvement in student learning achievement, as well as the success and achievement of research objectives.

Cycle I Test Results

$$KB = T / T_t \times 100\%$$

$$KB = 8/18 \times 100\% = 44.44\%$$

Cycle II

In this second cycle there was no change in material or learning model used, but in this cycle it was focused on improving every deficiency in cycle I.

Each student is said to be complete if he can answer the 5 questions given, from the results of tests given by the teacher, according to the KKM determined by the school. A class is said to be complete (Classical completeness) if in a class there are 85% who have reached KKM.

Cycle II Test Results

$$KB = T / T_t \times 100\%$$

$$KB = 16/18 \times 100\% = 88.89\%$$

Discussion

The discussion of the results of this study is based on the results of student learning tests which are followed by reflection on observations in each cycle of action.

The existing facts show that students are still rigid with the learning model carried out by

the teacher so that they are still having difficulty understanding mathematical concepts especially FPB and KPK in the fifth grade of Catholic Elementary School Fr. Don Bosco Tomohon which resulted in learning outcomes in the first cycle, of the total 18 students there were only 8 students who reached $KKM \geq 75$, 10 students had not yet reached KKM, so the success of the first cycle only reached 44.44% and could not be successful. All deficiencies that exist in this first cycle are corrected in the second cycle.

In the second cycle of learning implementation researchers are more focused in mastering the implementation of the steps of the learning model and through these steps the researcher can explain how to complete FPB and KPK by using several methods / techniques of completion, and also students are directly involved in demonstrating the matter of FPB and KPK, they have also begun to get used to and like the model of learning carried out by the teacher. Thus directly students become creative and active in participating in learning activities. The success achieved in the implementation of the second cycle of the number of 18 students was found only 2 students who did not meet the maximum score completeness, and 16 students had fulfilled the maximum score completeness, so the success rate in the second cycle reached 88.89% and stated action on second cycle succeed. In other words, there is an increase in learning outcomes from the first cycle in the second cycle of 44.45%.

CONCLUSION

Based on the results of the research and discussion that has been described, it can be concluded that: The application of the Team Game Tournament (TGT) model can improve the mathematics learning outcomes of fifth grade elementary school students in Catholic Fr. Don Bosco Tomohon.

Suggestion

Based on the conclusions of the research results, the following matters can be suggested:

1. It is expected that grade V teachers can apply the Team Game Tournament model in mathematics learning especially in FPB and KPK material.
2. In applying the Game Tournament Team model, it is necessary to pay attention to the learning steps (1) class percentage, (2) team formation, (3) games, (4) tournaments, and (5) group awards.
3. It is expected that students as prospective teachers can improve the quality and cognitive and psychomotor abilities to be able to create fun learning for students.

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Improving Indonesian Language Learning Outcomes of Basic School Students Through The Use of Roll Playing Learning Models

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Abstract

The purpose of this study was to improve the results of Indonesian students learning in elementary school through the use of roll playing learning models. This research was carried out using Action Research which consists of four stages: Planning, action, observation and reflection, with two cycles. Data collection techniques are obtained through observation, documentation and test of learning outcomes. Data analysis techniques using the formula $KB = T / T_t \times 100\%$. From the results of the research data showed that different results were obtained where the first cycle of student learning outcomes only reached 66.6%, while in the second cycle student learning outcomes reached 85.7%. The results of this study can be concluded that by applying the Roll Playing learning model can improve the learning outcomes of Indonesian students especially in the material writing text dialogue. From these conclusions it is recommended to use the Roll Playing Learning model, especially in the material of writing dialogue texts because this learning model is quite effective and can arouse interest in learning and student cooperation in learning.

Keywords : *Indonesian Language, Learning Outcomes, Roll Playing Learning Models*

INTRODUCTION

Education in Indonesia is closely related to learning Indonesian because learning Indonesian gets an important role for education in Indonesia, which is the official language in all fields. Indonesian Language Learning is directed at improving the ability of students to communicate in Indonesian well and correctly. Indonesian language competency standards are the minimum qualifications of students who describe mastery of knowledge, language skills, and positive attitudes towards Indonesian language and satra.

Indonesian Language Learning can be carried out well in the learning process because it is supported by 4 language skills, others

include writing skills. By writing someone can express feelings, ideas and ideas. Writing is a medium for someone to others. Suparno (Slamet 2012: 96), Writing as an activity of delivering messages (communication) by using written language as a media tool. Basically writing, not only giving birth to thoughts or feelings, but also an idea, knowledge, knowledge, and life experience of someone with written language. Therefore writing is not a simple activity that does not need to be studied, but rather must be mastered. A writing or essay can be seen in terms of the language used, the contents of the writing / essay, and the form or manner of presentation. The contents of the writing / essay must be relevant to the title of the essay, or the title of the essay can be

experience, environment and life, religion, education and others (Slamet 2012: 98).

It's natural to say that improving writing skills will encourage students to be more active in learning. But now the weak level of writing ability of elementary school students is a challenge for the teaching and learning process. Learning outcomes achieved by students are very dependent on the teaching and learning process.

Based on observations made by researchers in Class IV SD Inpres 2 Airmadidi Atas, in general students have not been able to write essays well, especially the type of narrative essay, this is evident when the learning process is only focused on the teacher, meaning that this learning uses one direction students just sit down and listen to the explanation from the teacher, so that students experience boredom and do not understand about the material presented which also makes students lazy to do the task. This results in the lack of success of students in writing essays, especially in determining the main ideas of the essay. This can be seen from the data taken by researchers where the number of students in Class IV SD Inpres 2 Airmadidi Atas, amounting to 16 people and only 2 people who received complete grades (12.5%) while 14 people were not completed (87.5%). In other words the value obtained has not reached the standard, this is a problem in learning.

Therefore efforts to overcome them need to conduct research in obtaining good learning outcomes. The investigation group learning model is a suitable learning model because this learning model is a combination of learning while playing so that students are more active, and in learning situations that are relaxed but have important meanings for students' progress.

METHOD

The design used in this study is Class Action Research (CAR) which refers to the research model proposed by Kemmis and Mc Taggart, (Zainal Aqib, 2006: 31) with stages 1)

Planning, 2) Actions, 3) Observation, 4) Reflection.

This Classroom Action Research Subject is grade IV SD Inpres 2 Airmadidi Atas with a total of 16 students, including 11 women and 5 men. Data obtained from the teaching-learning process is calculated using the KKM formula (Teaching Completion Criteria).

After calculating the percentage of completeness of learning outcomes achieved by students then it is further seen if the completeness of learning is classical $\geq 75\%$ then, a class can be said to be thoroughly studied.

RESULT

The results of the study were taken from the application of the Group Investigation learning model to improve the learning outcomes of writing essays for fourth grade students of SD Inpres 2 Airmadidi Atas. The discussion of the results of this study is based on collecting data through actions taken in the first cycle and second cycle.

Cycle I

The implementation of the action is carried out in the form of stages, namely stages of planning, implementation, observation and reflection. The results of Indonesian language learning, especially narrative essay writing material, were developed from the results of discussions given at the time the implementation of the investigation group learning model appeared to be less than optimal because of 16 people there were only 8 people who were finished studying and 8 others had not. From student learning outcomes can be seen the percentage of achievement is 54.69%. Then it can be seen that the learning outcomes in the first cycle have not reached the minimum completeness criteria. This unsuccessful happened because the teacher had not been able to implement the steps of the cooperative Group Investigation model that was designed, because the teacher had not been able to guide the

students, amounting to 16 people who had different characteristics.

Cycle II

The implementation of the action is carried out in the stages of the activity, namely the stages of planning, implementation, observation, reflection. Through observations made by researchers with classroom teachers it turned out that the actions taken in the second cycle had increased learning outcomes. This is caused by researchers who have corrected deficiencies that occurred in cycle I.

Based on the results of the cycle II table, it can be seen that the actions carried out in the second cycle reached students' mastery of 75% and reached 85.00% so that they can be called satisfactory results so that the actions carried out in the second cycle were declared successful and did not need to proceed next.

DISCUSSION

From the data analysis of the above test results, it can be seen in the first cycle the comprehension of student learning absorption in classical 54.69%, which means that it has not achieved 75% classical learning completeness because there are still 8 people who have not reached the standard, so this research is continued on cycle action II. In the second cycle, although there were some people who got good grades, the individual absorption capacity had increased to reach the completion score of 85.00%. This means that it has achieved an increase in student learning outcomes in a classical manner, so this research has been successful and satisfying. so this research did not proceed to the next cycle. With the results of this study, the benefits obtained from the application of the Group Investigation learning model are:

- a. Increase student motivation and students' attention to learn through interesting picture media;
- b. Students more easily understand the material given by the teacher;

- c. Students are more active in learning;
- d. Students are more responsible through cooperation between fellow group members;

Based on the description above, it can be concluded that the Group Investigation learning model on Indonesian language learning especially essay writing material can improve the learning outcomes of writing more effective essays.

CONCLUSION

Based on the results of the research and discussion, the researcher can conclude that: The application of the Group Investigation learning model can improve the learning outcomes of Indonesian Language in essay writing material in class IV of SD Inpres 2 Airmadidi Atas. This can be seen in the learning outcomes of the first cycle (54.69%) and the second cycle (85.00%).

Suggestions researchers, as teachers, are suggested that the application of the investigation group learning model on Indonesian language material can be done in a directed, planned and continuous manner to improve student learning outcomes and also expected that the application of investigation group learning models can help students to be more motivated, especially in understanding subject matter given by the teacher.

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21st Teacher Skills: Skill that are Implemented Through Meaningful Learning

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Abstract

Teachers in the 21st century are challenged to accelerate the development of information and communication. Classroom learning and management, in this century must be adapted to the standards of advancement in information and communication technology. Teachers should have competencies they are; pedagogical competence, personality competence, professional competence, social competence in applying in the 21st century teacher skills in meaningful learning. David Ausubel stated that material what is learned should be "meaningful". Meaningful learning is a process of linking new information to relevant concepts contained in a cognitive structure. The teacher needs to prepare him/herself in responding to the challenges of education in the 21st century. In the 21st century the role of the teacher becomes increasingly severe where the teacher must be able to deliver students to become personal excellence, with characteristics that are able to survive and compete in the 21st century.

Keywords: *21st Century Teacher Skills, Meaningful Learning.*

INTRODUCTION

Competence can be defined authority and skill or ability in executing a task or work in accordance with the position it bears. In this case the task or work is the profession of the teacher. The formulation of the teacher's competence that develop in Indonesia has been contained in Law number 14 of 2005 concerning Teacher and Lecturer, article 10 paragraph (1) Teacher competencies are include pedagogical competence, personality competence, social competence, and professional competence that obtained through professional education. It means that the

implementation of Teacher Professional Education (PPG) is intended so that the teacher has the competence referred to the Law. Teacher who has adequate competence greatly determine the success of achieving educational goals.

Pedagogical Competence

Pedagogical competence is the teacher's ability related to understanding students and managing learning starting from planning, carrying out to evaluating.

Personality Competence

Personal competence is behaviors that reflect the personality of a solid, stable, mature, wise and dignified become role models for students and has good character.

Social Competence

Social competence is concerned with the ability of educators as part of the community to communicate and interact effectively with students, educators (teacher), staff, parents, and the community.

Professional Competence

Professional competence is an ability related to mastering learning material widely and deeply which includes mastering of the substance of the content of learning materials, and scientific substance which includes material in the curriculum, and increase the depth of knowledge about the material in the curriculum, as well as adding depth of knowledge.

A. 21st Century Teacher Competence and Skills

The 21st century is marked by the presence of the media era (digital age) is very influential in the management of learning and changing characteristics of students. The 21st century learning becomes imperative to integrate information and communication technology, and management of student-centered learning. In developing 21st century learning, teachers are required to change teacher-centered conventional learning patterns into student-centered learning because abundant learning resources are not only sourced from teachers, so the teacher's role becomes a facilitator, mediator, motivator and leader in the learning process. Conventional learning patterns can be understood as learning where many teachers give lectures (transfer of knowledge) while students are listen, notes and memorize. The pedagogical ability with conventional patterns is seen to be inaccurate with the current era.

Characteristics of 21st century students are very different from previous era. In the 21st

century a person must has 4 C skills (Communication, Collaboration, Critical Thinking and Problem Solving, and Creativity and Innovation). These skills have been properly reflected in the learning will be implemented. Based on the challenges of the 21st century, teachers must transform themselves into the digital pedagogy era by continuing to develop creativity and innovative. While the National Educational Technology Standards (NETS) in the book Instructional Technology and Media for Learning states that effective teachers who are able to design, implement and create a learning environment and improve students' abilities. Teachers has standard abilities such as (1) facilitating and inspiring students to learn creative, (2) designing and developing digital media for learning and evaluating experiences, (3) utilizing digital media in work and learning, (4) has the spirit of nationalism and a sense of high responsibility in the digital age, and (5) able to foster professionalism and leadership.

In managing learning, the teacher begins with lesson planning. The lesson plan that is prepared in advance by the teacher, he/she understands the characteristics of students, understands various learning theories and principles of learning, integrates sharing of digital and non-digital learning resources, integrates learning with technology, chooses learning strategies that are appropriate to the potential and character of students and choices of methods centered on student (student center). At this planning stage the teacher develops a lesson plan (RPP) that meets the principles of educational planning. Implementation of learning with a student-centered approach, so that learning becomes meaningful.

MEANINGFUL LEARNING

David Ausubel (1963) an educational psychologist stated that the learning material must be "meaningful". Meaningful learning is a process of linking new information to relevant concepts contained in a cognitive structure.

Cognitive structures are facts, concepts, and generalizations that students have learned and remembered. Learning meaningful according to Ausubel (1963) is a process of linking new information or material with concepts that already exist in cognitive structures. There are three factors that influence meaningfulness in a learning, namely the existing cognitive structure, stability and clarity of knowledge in a particular field of study and at a certain time. In this regard, Dahar (1996) suggests the occurrence of meaningful learning two prerequisites, namely: (1) the material to be learned must be meaningful, potentially, and (2) the child will learn to be aimed at learning meaningful. Besides that, the potential meaningfulness of subject matter depends on two factors, they are (1) the material must have logical meaning, and (2) relevant ideas must be contained in the cognitive structure of the students.

Suparno (1997) said, that meaningful learning is a learning process where new information is linked to the structure of understanding that a person who is in the learning process already has. Meaningful learning occurs when students are trying to connect a new phenomenon into their knowledge structure. That is, the learning material must match the abilities of students and must be relevant to the cognitive structure of the students. Therefore, the lessons must be linked to concepts that already owned the students, so that new concepts are completely absorbed by it. Thus, emotional intellectual factors of students are involved in learning activities.

B. Implementation of 21st Century Teacher Skills in Meaningful Learning

21st century teacher skills must also understand local and global issues and be responsive to evolving digital culture and try to show action by upholding ethics in professional practice. This competence is important for teachers in the digital era, because the knowledge and information are very quick,

which are sometimes not necessarily in accordance with the norms and are not necessarily validated, therefore information and knowledge must be accountable when they are used as material in learning.

Example of Implementation of 21st Century Teacher Skills in Meaningful Learning.

LESSON PLAN

School	: Elementary
School of.....	
Class/ Semester	: IV/ 1
Theme	: 1. Indahnya
Kebersamaan	
Sub-theme	: 3. Bersyukur
Atas Kebersamaan	
Subjects	: 1 (Bahasa
Indonesia, IPS, IPA)	
Time Allocation	: 1 Meeting (4 x
	35 minutes)

A. Core Competence

B. Basic Competence and Indicators of Competence Achievement

Basic Competence	Indicators
Bahasa Indonesia (Indonesian Language) 3.2 Observing connectedness ideas derived from the text spoken, written, or visual.	3.2.1 Identify the main idea and supporting the idea of each paragraph of the spoken text. (C1)
	3.2.2 Determining the main idea and supporting the idea of each paragraph of the text to write. (C3)
	3.2.3 Integrating main ideas and supporting ideas into paragraphs. (C4)
4.2 Presenting the results of observations about connectedness ideas	4.2.1 Write down the main ideas and supporting ideas for each paragraph in the

into writing.	form of a mind map.
IPS (Social Education) 3.2 Identify the diversity of social, economic, cultural, ethnic, and religious in the local province as Indonesian national identity; and its relationship with the characteristics of space.	3.2.1 Mention the diversity of traditional foods from various districts in Central Java Province. (C1)
	3.2.2 Distinguishing characteristic of the diversity of traditional foods from various districts in Central Java province. (C2)
4.2 Presenting the results of the identification of the diversity of social, economic, cultural, ethnic, and religious in the local province as Indonesian national identity; and its relationship with the characteristics of space.	4.2.1 Write information about traditional food in Central Java Province.
	4.2.2 Presenting information about the diversity of traditional foods of various districts in Central Java Province.
IPA (Science Education) 3.6 Applying the properties of sound and its relation with the sense of hearing.	3.6.1 Explains the source of the sound. (C1)
	3.6.2 Identify the properties of sound bouncing and absorbing. (C1)
	3.6.3 Distinguishing characteristics of objects that can reflect sound by absorbing sound.
	3.6.4 Applying sound properties in daily life. (C3)
4.6 Presenting experimental report on sound properties.	4.6.1 Conducting experiments on the properties of the sound bouncing and propagating.

	4.6.2 Presenting a report on the properties of sound bouncing and absorbing.
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C. Learning Aims

1. By listening to the sound recordings of the reading "Dodol Betawi Mak Salmah", students can identify the main ideas and supporting ideas of each paragraph of the oral text correctly.
2. By reading random sentences, students can determine the main ideas and supporting ideas of each paragraph of the written text correctly.
3. By determining the main ideas and supporting ideas in random sentences, students can combine the main ideas and supporting ideas into paragraphs correctly.
4. By listening to the sound recordings of the reading of "Dodol Betawi Mak Salmah", students can write the main ideas and supporting ideas of each paragraph in the form of a mind map correctly.
5. By listening to videos about various traditional foods in Central Java, students can correctly mention the diversity of traditional foods from various districts in Central Java Province.
6. By listening to videos about various traditional foods in Central Java, students can distinguish the characteristics of traditional food diversity from various districts in Central Java Province appropriately.
7. By listening to the video on how to make Fried Lumpia, students can write information about traditional food in Central Java Province correctly.

D. Material

Regular Material

1. The main idea and supporting ideas.
2. Diversity of traditional food in Central Java Province.
3. The characteristic sound bounces and absorbs.

E. Approach, Model, and Learning Method

Approach: Scientific Approach
Model: Discovery Learning
Methods: Questions and answers, discussions, assignments, and lectures.

F. Media, Tools, and Source.

1. Media and Tools:

- Sound recordings of the reading of "Dodol Betawi Mak Salmah".
- Drawings of various traditional foods.
- Video song "Kamu Makannya Apa".
- Video of various traditional foods in Central Java.
- Video how to make Lumpia's Semarang.
- Tools and materials Experiments of sound properties (glass plates, watches, tablespoons, glass bottles, wood, Styrofoam, long tubes from used places).

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G. Steps of the Learning

Activities	Learning Activities	Time Allocations
Pre-Activities	<ol style="list-style-type: none"> Check the presence of students. (believing, devoted) Pray together. (believing, devoted) Students sing the song "Indonesia Raya" and continue PPK's pat. (homeland love and character) Literacy habits for 5 minutes. (discipline) Students pay attention to the teacher's explanation of the goals, benefits, and learning activities that will be carried out. (discipline, cooperation, creative) 	25 minutes
Main-Activities	<p>Stimulations</p> <ol style="list-style-type: none"> Students are shown pictures of several types of traditional food in the local area. (Observing) (caring, homeland love) Students ask questions about traditional food. (Questioning) (confidence) Students are asked to listen carefully to the 	

	<p>sound recordings of the reading of "Dodol Betawi Mak Salmah". (Gathering information) (Discipline, exemplary). Problem Statement 4. Students in group discussions to identify main idea and supporting idea of each paragraph. (Reasoning) (Cooperation). Data Collection 5. Students write the results of the discussion in the form of a mind map on LKPD 1. (Gathering information) (Discipline). 6. Students are presented random sentences by the teacher. (Reasoning). Data Processing 7. Students in groups discuss combining random sentences into paragraphs on the LKPD2 sheet. (Reasoning) (Cooperation). Verification 8. Students read the result of the discussion in front of the class. (Communicating) (Confidence).</p>	
	<p>Generalization Students are given the strengthening and confirmation of the results of discussions. (Gathering information).</p>	
<p>Post-Activities</p>	<p>1. Students and teachers conclude learning outcomes. (creative) 2. Students work on evaluations. (honesty) 3. Students with a teacher to reflect on learning activities that have been implemented. (discipline) 4. Learning is ended; one of the students leads a prayer together according to their respective religions and beliefs. (believing, devoted)</p>	

CONCLUSSION

In learning, to deliver students to the 21st Century, teachers need to prepare learning that is prepared by paying attention to the characteristics of students. Characteristics of 21st century students are very different from the previous era. In this 21st century a person must have 4 C skills (Communication, Collaboration, Critical Thinking and Problem Solving, and Creativity and Innovation). So at the planning stage the teacher needs to develop a lesson plan (RPP) and implementation of learning by applying 21st century teacher skills so that learning is meaningful.

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Improving Literation Corner Movements to Grow The Interest of Reading of Elementary School Students

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Abstract

Various studies on reading show that reading interest in Indonesian society is relatively low, and with the development of increasingly sophisticated technology, there are various electronic media that are presented as entertainment for children such as *gadgets, hand phones, online games* etc. It can cause children to dislike books to grow a reading culture, by applying literacy corner movements as an effort to increase reading interest in elementary school students.

People who often read, their education will be more advanced and he will have wider insight. Of course the reading results will be schemata for him. Therefore, this paper aims to increase interest in reading for elementary school students, because reading can open wider knowledge and students can read in class more comfortably and do not have to go to the library. The benefits for students are students can add, expand and deepen the lessons that have been obtained from the teacher. Thus the students' insight in reading with the method of implementing literacy corners can grow interest in reading for elementary school students.

Key words: *improvement, reading interest and literacy*

INTRODUCTION

A. Background

The increasingly rapid development of the times makes reading activities very concerning. The 2011 results of the *progress international reading literacy study (PIRLS)* that evaluated the reading ability of elementary school students placed Indonesia in 45th place out of 48 countries, namely a score of 428, below the average value of 500 (IEA - *the international association for the evaluation of education achievement*). The results of the test are not much different from the survey results

from *the program for international student assessment (PISA)*.

The PISA survey was conducted to evaluate the ability of 15-year-old students to include reading, mathematics and science. Indonesian students participated in PISA 2009 and 2012, both of which were attended by 65 participating countries. Especially in reading ability, Indonesia originally in PISA 2009 was ranked 57th with a score of 396 (OECD average score - *organization for economic cooperation and development* 492). It turned out that the 2012 PISA ranking declined,

which was ranked 64th with (OECD average score 496).

The above data are in line with the findings of the statistical center agency (BPS) in 2012 showing that the population watching TV reached 91.68%, and reading newspapers amounted to 17.66%, this could indicate that Indonesia's reading culture lost very much to watching culture. Based on the above data, it can be concluded that the low quality of education in Indonesia is indicated by the low culture / reading habits of the Indonesian people, even though reading skills have a role and become one of the keys to success in one's life, because any information and knowledge obtained is inseparable from reading activities.

In 2013 the ministry of education and culture through ministerial regulation number 23 of 2013 launched a school literacy movement to assist students in fostering a reading culture in schools, thus reading has a very important role for elementary school students. The use of this literacy corner can increase reading interest for elementary school students

B. Objectives

a. For Students

With the existence of this literacy corner movement program, it can increase interest in reading for elementary school students, because reading can open up wider knowledge. And students can read in class more comfortably and don't have to go to the library.

b. For Schools

As literature for the development of knowledge in the field of education, especially in the field of developing reading interest in elementary school students, and to assist in finding factors that can be used as a basis for policy making in the development of effective and efficient primary school students' reading interest

students, so they can achieve the desired goals.

C. Formulation of the problem

1. Interest

The Definition of Interest

In the large Indonesian dictionary the word "interest" means fondness or tends to be a high heart towards something. In this case there is something that is caused both inside and outside to like something. Whereas Dwi Sunar Prasetyo expressed interest is feeling like and interested in a thing or activity without being told that it can also be interpreted as someone's willingness to do something they like.

Furthermore, Wicaksana stated that interest is a situation where a person has an attention to an object, accompanied by a desire to know and learn, and finally prove further with a particular object. It can be said that the emergence of interest is due to the feeling of pleasure or the attraction of the object being seen. Crow revealed that interest is closely related to *human drivers, motivation and emotional response*.

Someone who is interested in something has a strong urge to carry out activities that can satisfy his curiosity in achieving a goal. The impulse that can arise is called motivation. In addition, Mildred & Hamman also defines interest as a tendency that causes someone to try to find or try activities in a particular field. From some expert opinions that have been stated above, it can be concluded that interest is the tendency of the soul (affective) and one's attention to a matter, so that someone becomes motivated and grows happy about it without any compulsion.

2. Reading

a. Definition of Reading

According to Astuti, reading is an active way to understand the message of a writer. Along with Mildred & Hamman reading is a process of sight and response, when the reading process depends on the ability to see symbols. Another expert stated that reading is someone's activity to obtain information or messages in the form of written language, symbols.

Furthermore, Wicaksana also stated that reading is the process of getting to know words and integrating the meaning of words in sentences and reading structures, so that the result of the reading process is that someone is able to make the essence of the reading. Reading is a series of thought activities carried out attentively to understand information through the sense of sight in the form of symbols arranged in such a way that it has meaning in meaning. Three terms are often used to provide the basic components of the reading process, namely *recording*, *decoding*, and *meaning*. Recording refers to words and sentences and then associates with the sounds according to the writing system used, while decoding refers to the process of translating graphical sequences into words. The process of recording and decoding usually takes place in the early grades of elementary class I, II, and III which is then known as reading the beginning. The emphasis on reading at this stage is the perceptual process, namely the introduction of correspondence to the sequence of letters with the sounds of language. Meanwhile the process of understanding meaning is emphasized in the elementary high classes.

From some of the meanings of reading above it can be concluded that reading is the process of understanding which includes recording, decoding, and meaning on symbols in the form of reading texts that contain messages conveyed by the author so as to produce new information or knowledge.

b. The Benefit of Reading

Reading is very useful for one's life, like Dian said the benefit of reading are:

- a. To facilitate understanding various subjects. By reading students can add, expand, and deepen the lessons that have been obtained from the teacher. Thus the insight and horizons of thinking students improve.
- b. Enhancing students' ability to compare, research, sharpen what has been obtained from the class.
- c. Increase the appreciation of literary arts.
- d. Improve the ability to recognize yourself and their environment.
- e. Develop good character and personality.
- f. Fill free time with positive activities.
- g. Add vocabulary.
- h. Educate children to learn independently.
- i. Bring up new ideas.
- j. Educating children to think critically and well informed about various problems that occur in the environment.
- k. Extending experience.

3. Literacy

Definition of Literacy

According to the online dictionary Merriam-Webster literacy comes from

the Latin term "*literature*" and English "*letter*". Literacy is the quality or ability of literacy or alphabet which includes the ability to read and write. But more than that, the meaning of literacy also includes visual literacy which means "the ability to recognize and understand ideas conveyed visually (scenes, videos, and images)." *The National Institute for Literacy* defines literacy as the individual's ability to read, write, talking, counting, and solving problems at the level of expertise needed in work, family, and society.

According to UNESCO, literacy is a set of real skills especially cognitive skills of reading and writing that are separated from the context in which the skills are acquired and from whom they are obtained. Goody (1999) the definition of literacy is the ability to read and write by someone in drawing social phenomena scientifically. Cordon (2003) reveals the definition of literacy is a source of pleasant knowledge that is able to build the imagination of other scientists to explore the world and knowledge widely based on meaningful references.

Conclusions from the above understanding that literacy is the ability of a person to read, write, but also can include visual literacy which means being able to recognize and understand the ideas conveyed visually in the form of scenes, videos, and images.

DISCUSSION

1. Implementation of Increasing Interest in Reading Elementary School Students Through the Literacy Corner Movement

According to the Ministry of Education and Culture which launched the movement of character's murder through a series of non-curricular activities, namely mandatory and optional daily and periodic

sequences. One of the mandatory activities in school before starting learning is reading non-lesson books. The school has also previously formed a literacy corner program, where each class has a corner so students can read in their spare time, because many students are lazy to go to the library due to distance factors, so with the literacy corner can increase reading interest in these elementary school students. In addition, there are programs that can be done such as:

- a. Do encouragement about the importance of reading for intelligence.
- b. Make worksheets to trigger the reading process of students.
- c. Guide students to study the contents of the reading book.
- d. Give a positive example, become a role model for students by using leisure time to read.

2. Guidance on Reading Joy in Elementary School Students

To support the implementation of reading likes through the literacy corner program, adequate facilities are needed, coaching likes to read to students continues to be improved by collaborating with libraries to collaborate with parties outside the school to add to the collection of literature, and hold a race to decorate literacy corners in each class. As explained, children's ability to read is very important. Mary Leonhardt (1999:27) states there are several reasons why we need to foster love of reading in children, the reason are:

- a. Children who love to read well, most of their time will be used to read.
- b. Children who love reading will have a higher sense of language. They will speak, write, and understand complex ideas better.
- c. Reading will provide broader insights in everything and make learning easier.

- d. Reading fondness will provide various perspectives to children.
- e. Reading will help children have compassion.
- f. Children who love reading are faced with a world full of possibilities and opportunities.
- g. Children who love reading will be able to develop creative thinking patterns within themselves.

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CONCLUSION

Based on the analysis of the literacy corner movement to increase reading interest in elementary school students, it was obtained:

1. With the existence of a literacy corner movement that is a mandatory activity in school before starting learning is reading non-lesson books. The school has also previously formed a literacy corner program, where each class has a corner so that students can read in their spare time, because many students are lazy to go to the library due to distance factors, so the literacy corner can increase reading interest in elementary school students.
2. Fostering a literacy corner movement by first making a reading habit for 15 minutes before the lesson begins, the second doing a direct approach, the third decorating the literacy corner in each class so students are interested in reading in the literacy corner. Fourth is to develop a literacy corner program by providing reading facilities and collections through collaboration with parties outside the school to build students' motivation to read.

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Character Students and Liberation Movement in School

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Abstract

Activity of habituation of positive attitude and behavior at school that starts gradually from basic education to higher education is the developing character. One of the habituation is in connection with school literacy movement that is a mandatory activity to use 15 minutes prior to the day of learning to read books other than textbooks (every day). School literacy movement policy is closely linked to literacy as a basic component of formation of qualified, productive and competitive human resources, possessing good character, and nationalism. There are three stages in the implementation of School literacy movement, namely habituation of fun reading activities at school environment; development of reading interest to improve the literacy skills; and implementation of literacy-based learning. The School literacy movement program can create a literate school ecosystem and cultivate learners character.

Keywords: *character, literacy, study*

INTRODUCTION

Education is a means of awakening nation and weapons to realize progress and prosperity. The most dominant indication to show an advanced civilization of a nation is when the education sector is of good quality. The culture of a nation will be seen in the culture of literacy of the people.

Per the long-term development plan of the Ministry of Education and Culture, the period of 2010-2015 was emphasized on the development of strengthening services and the next focus was on improving the quality of education so that it was relevant and competitive. One element in the declaration of vision National education in 2025 is a competitive global level. Therefore, in the 2015-2020 development period focused on the quality of education that has regional competitiveness at the ASEAN level.

The era of globalization in the field of education has made the Ministry of Education and Culture to organize national education

programs with international quality. Strategic policy in this period will bring to the realization of the vision of Kemdikbud in 2025. The global community is required to be able to adapt technological advances and renewability. One of the policies of the Ministry of Education and Culture which is based on nine priority agendas (Nawacita) is the school literacy movement (GLS). GLS policy is closely related to the literacy component as the capital of the formation of human resources quality, productive and competitive, characterized and nationalist.

Literacy activities are reading and writing activities related to knowledge, language and culture. In the Unesco declaration, literacy is related to the ability to identify, determine, find, evaluate, create effectively and organized, use, and communicate information to overcome various problems. It will develop students' character through acculturation of school literacy ecosystems to become learners throughout life (Dirjen Dikdasmen, 2016: 7).

The problem is that the implementation of the GLS policy above involves a lot element that are not necessarily already participate. The element is a school citizen consisting of students, teachers, headmaster, education staff, supervisor school, school committee, parents / guardians of students. In addition, the GLS policy also involves academics, publishers, mass media, the public, and stakeholders under the coordination of the Directorate General of Primary and Secondary Education of the Ministry of Education and Culture.

Based on 2014 UNDP data, the level of extortion in Indonesia has reached 92.8% for the adult and the groups 98.8% for the youth category (Director General Dikdasmen, 2016: 7). The data above shows the level of literacy of the Indonesian people already in a good position. However, when viewed at the reading level Indonesian students rank 57 of the 65 countries studied (Republika, 12 September 2015). this problem is a challenge that education must face in Indonesia, especially in literacy. Literacy development is not only in changing those who cannot read to be able to read, but encourages those who can read to actively read on, increase their interest in reading, and the average number of readings. This is an important literacy problem to solve together.

In formal education, the active role of stakeholders, namely the head school, teacher as educator, energy education, and librarians are very influential to facilitate the development of student literacy components. In order for the literacy environment to be created, a paradigm shift for all stakeholders is needed. This is what needs to be developed regarding stakeholder readiness in the success of the GLS.

Based on the above problems, needs analysis in GLS activities needed to make this movement an important part of life. This matter

based on the motto from Unicef that children in the golden age need support to get it develop yourself as optimal as possible. Every child must get a guarantee of education best because of their future, the future of their community, the nation and the whole world depends on the child.

METHOD

Children are the mandate and gifts of God that must be guarded because they inherit their dignity, dignity and rights as human beings which must be upheld. Children are the future of the nation and future generations ideals of the nation so that every child has the right to survival, to grow and develop, participating, entitled to protection from acts of violence and discrimination, and civil rights, and freedom.

The process of children's education can occur in the family, community, and school environment.

Development of children from birth to adulthood the development of education as a whole. Education as a system obtains input from the suprasystem and will provide results (output) for suprasystem. Inputs obtained from suprasystem consist of values, ideals, and norms found in society, students, educators, and other personnel in education. One way to cultivate character in children can be through story books.

The growth of character in the story is the internalization of moral and spiritual attitudes that are practical and can be interpreted through stories. This is related to life problems, such as attitudes, behavior, and social manners (Nurgiantoro, 1995: 321). Moral values consist of relationships with God, human relations with other humans, and human relations with themselves. With the existing rules it is expected that children can live better.

Fairy tales are the results of literary works which contain values life and educational values. Fairy tale offering life stories about good and bad symbolized by the behavior and attitudes of the characters of the story. Therefore, through the story of readers or listeners can take benefits that can be applied in everyday life. Growth in character through reading story books can be used as a habit of positive attitudes and behaviors in the learning process of each school and community environment.

Growth of character in the affective aspect (attitude). In Bloom's taxonomy, the affective aspect consists of five stages, namely acceptance (receiving / attending), response

(responding), awards (valuing), organizing (organization), and characterization based on the values (characterization by a value or value complex) (Krathwohl, et al. 1964: 64). The level of acceptance is willingness / sensitivity to the symptoms of appropriate stimulation. In learning can be in the form of getting attention, maintaining, and directing. Second, responses are reactions to existing responses which include approval, willingness, and satisfaction in giving responses. Third, the value applied to behavior that causes individuals to be consistent in his actions. Fourth, integrating values to form a consistent value system. Fifth, has a value system that is believed and can enter into one's personality.

Based on the five stages above, the growth of character can begin to like to do something. Ways that can be done by habituation and practice. Habituation in education is a shared responsibility between parents, students, schools, and the community. The commitment of the four parties above is needed to build a positive perception of the realization of effective education. The involvement of parents and the community in creating a conducive learning atmosphere will help the growth of character. Minister of Education Regulation and Culture of the Republic of Indonesia Number 23 In 2015, cultivation of character stated that civilization of culture (PBP) was an activity to habituate positive attitudes and behaviors in schools that began tiered from starting elementary school, to junior high, high school / vocational school, and schools in special education pathways starting from the orientation period new students arrive at graduation. There are three goals for PBP, namely:

1. make the school a fun learning park for students, teachers, and education staff;
2. develop good habits as a form of character education since family, school and community; make education a movement involving the government, regional government, community, and family;
3. fostering a harmonious learning environment and culture between families, school, and community.

The PBP implementation is based on the basic values of nationality and humanity includes habituation to grow internalization of moral and spiritual attitudes, determination to maintain the spirit of nationalism and diversity to strengthen national unity, positive social interaction between students and adult figures in the school and home environment, positive social interactions between students, maintaining a school environment, respecting the unique potential of students to developed, and strengthening the role of parents and related community elements.

RESULT AND DISCUSSION

The level of community literacy culture has a correlation with the quality of the nation. A person's reading habits will greatly influence one's insight, mental, and behavior. Habits can be fostered and developed. Therefore , one improvement in the quality of human resources is determined by the culture of literacy.

Based on the above facts, Indonesia needs a strategy to create a school literacy culture.

1. Condition literacy-friendly physical environment.
2. Seeking social and affective environments as literate models of communication and interaction.
3. Strive for school as a literate academic environment.

The GLS program is implemented in stages by considering readiness schools throughout Indonesia. The habit to develop GLS is to make reading a fun habit school ecosystem. The activity that can be done is fifteen minutes of reading every day before class hours through activities to read books aloud (read aloud) or all school members read silently (sustained silent reading). The school environment provides a library school, reading corner, comfortable reading area, other facilities, and providing a collection of texts print, visual, digital that is easily accessed by all school people. This activity is packaged in a pleasant atmosphere without bills. If this activity has been going well, then the second phase is continued, the development of reading interest to improve literacy skills in the form of

development with simple bills for non-academic assessment. The third stage is the implementation of literacy-based learning in the form of learning with academic bills.

The implementation of literacy-based learning above aims to develop the ability to understand text and its relation to personal experience, critical thinking, and process communication skills creatively through activities responding to text enrichment reading books and textbooks. To develop literacy-based learning, the 2013 curriculum makes academic bills, namely at the level of elementary school students are asked to read non-text lessons of at least 6 books, at least 12 books in junior high school level, and at least 18 high school / vocational levels (Dirjen Dikdasmen, 2016: 29-30)

The literacy-based learning method is a development of the method drill that has actually been used on previous learning. According to Brown (2007: 17) the learning method used always changes when there is a new learning methodology paradigm. Every new method tries to separate itself from the old method and takes the positive aspects of the old method.

This can be seen in the learning method that is being favored by the teacher always considered different from the method it has already been used and as if the old method is no longer suitable for use. Though every method always has weaknesses and strengths. The method used in GLS takes the positive side of the previous method.

Curriculum development in language learning needs to understand the principles -the principle of language learning methods. Language learning according to Kumaravadivelu (2006: 58) based on three aspects, namely form-based input modifications, meaning-based input modifications, and forms and meaning based input modifications. The first aspect emphasizes the form, the second aspect of meaning, and the third aspect tends to combine the two.

Nation (1996: 7) revealed four balanced strands / aspects in good language learning. The four aspects above are as follows.

- a. Meaning-focused input which includes listening and reading with pay attention to ideas and messages that will be delivered.
- b. Language focused activities which include language sounds and spelling, vocabulary learning directly, grammar exercises, and pay attention to discours used.
- c. Meaning-focused output which includes speaking and writing by paying attention to the delivery of ideas and meanings to others
- d. Fluency-based antivities which include the development of fluency through language four language skills.

Based on the four aspects above, each aspect must be balanced in the learning process, which is 25%. In its implementation, language learning can use integrated methods or separately to emphasize certain aspects according to their needs. Based on the theory above, GLS actually took the concept for its development.

The GLS program is implemented in stages by considering the readiness of schools throughout Indonesia. This readiness includes the readiness of school capacity (availability of facilities, reading materials, facilities, literacy infrastructure), readiness of school members, and readiness of other support systems (public participation, institutional support, and relevant policy tools). For example, the implementation of literacy-based learning requires students to read non-textbook lessons that can be books on general knowledge, hobbies, special interests, or multimodal texts, and can also be associated with certain subjects as many as 6 books for elementary school students.

Based on surveys in several elementary schools in Yogyakarta, GLS is generally still in the stage of growing interest in reading. The habit of reading nontext lessons is fifteen minutes before class not all schools have implemented it. School the basis that has been carried out routinely every day is the GLS target school. Quite a lot of obstacles faced by schools to implement GLS. The main obstacle is the provision of reading in the school library. The number of book collections is still very limited. In addition, a comfortable place to read must also be addressed. Improvement of

facilities and human resources needs to be developed.

Development of GLS is really needed so that children like to read and skilled writing so that generation is created who are literate and become the Indonesian nation quality. The government has launched GLS but it should be followed by infrastructure improvements to develop the literacy culture.

CONCLUSION

The level of community literacy culture has a correlation with the quality of the nation. A person's reading habits will greatly influence one's insight, mental, and behavior. Habits can be fostered and developed. Therefore, one improvement in the quality of human resources is determined by the culture of literacy.

Literacy is related to the ability to identify, determine, find, evaluate, create effective and organized, using, and communicating information to overcome various problems. It will develop students' character through acculturation of school literacy ecosystems to become lifelong learners.

The GLS program is implemented in stages by considering the readiness of schools throughout Indonesia. This readiness includes readiness of capacity, readiness of school members, and readiness of other support systems.

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The Development of Civics Picture Book Media for Third Grades Students

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Abstract

This study aimed to describe the media design, test the media feasibility, and know the effectiveness of the Civics picture book media. This study used a quantitative approach. The type of research was Research and Development (R&D). The data collection techniques used were test, interview, questionnaire, and documentation. The data analysis of this study was analysis of media feasibility and analysis of media effectiveness. The picture book media of Civics for local cultural uniqueness material was claimed very appropriate by the material expert with 84.4% feasibility percentage, and 80% by the media expert or included in the feasible criteria. The test result of the difference between two means with t test obtained t_{count} was 9.184 and t_{table} was 2.064. The conclusion of this study was the Civics picture book media was feasible and effective to be used in Civics learning for local cultural uniqueness material, in accordance with the improvement of students' learning result in Kedungpane 02 Elementary School.

Keywords: *picture book; local cultural uniqueness; Civics*

INTRODUCTION

According to Winataputra (2014), Civics (PKn) is education that concerns the formal status of citizens who were initially regulated in Law No. 2 of 1949 which contained self-citizenship, and regulations on naturalization or the acquisition of status as Indonesian citizens. Civics in Law No. 22 of 2006 is a subject that aims so that students have the ability to participate actively, responsibly, and act

intelligently in community, national and state activities, as well as anti-corruption. To achieve better student achievement, especially in Civics and to facilitate students learning, a media is needed to facilitate students to understanding the material.

Based on preliminary research through interviews, observations, document data, conducted by researchers in third grade of Kedungpane 02 Elementary School, it was

known that, Civics subjects have been taught but not maximally. From the results of observations, students' learning responses in the class were less than optimal, it was seen that only a small percentage of the students were able to answer the questions the teacher gave. In addition, the researchers also observed that the use of instructional media by teachers was still limited to textbooks and simple examples, not yet using specific and clear media. Through unstructured interviews of researchers with several students, information was obtained that third-grade students still did not understand the culture in the Central Java region. Student learning outcomes in Civics subjects were mostly still under the KKM, which was 70. This was evidenced by the final test value of students who researchers get from homeroom teachers, with learning outcomes in the cognitive domain 13 students from a total of 25 students around 52% have not received optimal grade.

These problems indicate that there needs to be an improvement in the learning outcomes of Civic learning content. In this study, researchers chose to develop media picture books. Media images / photos are two-dimensional media that represent the original form. Image / photo is a visual tool that can be visualized so that it can be explained more concretely and realistically. Information will be more easily accepted and understood by children by looking at pictures / photos because they are closer to reality. Picture books are media as teaching aids to explain the material of a lesson, which can facilitate students in understanding the material being taught.

"Media images are very suitable for use in elementary schools, especially early classes, this was because the media was very useful for concretizing things that were abstract in the form of images or photographs, which can describe good and bad behavior, as a means of moral formation of children "(Ruminiati, 2007: 2.23).

METHODS

This research used a quantitative research approach. The type of research used was Research and Development (R & D). According to Mulyatiningsih (2014: 161), research and development aimed to produce new products through the development process. The reason for the use of this type of research and development in this study was in accordance with the purpose of the study, which developed media designs for picture books in Civic learning.

The subjects in this research and development were (1) third grade elementary school students at Kedungpane 02 Elementary School at 2017/2018 school year with a total of 25 students consisted of 14 female students and 11 male students; (2) third grade teacher at Kedungpane 02 Elementary School.

The design of this study used a developing design by Borg and Gall. According to Sugiyono (2015: 35-37), the steps of research and development of Borg and Gall were 10 stages. Testing was done by the experimental method, namely by the design of one group pre-test post-test. Sugiyono (2012: 110). The steps were then adjusted to the needs of the researcher, which was limited to the product effectiveness test phase which consisted of eight stages through the Bayes-Fishbone Theory (Yuniarto, 2014: 221), (1) potential problems; (2) development of the initial form of the product; (3) product design; (4) design validation; (5) design revisions; (6) product testing; (7) product revisions; (8) effectiveness test (limited scale).

Data collection techniques were conducted to collect data from this study, namely by using tests and non-tests. Instrument non-test included questionnaires, interviews, and documentation. This study used tests carried out at the beginning of learning (pretest) and the end of learning (posttest) as a comparison of improving student learning

outcomes of Kedungpane 02 Elementary School.

The data analysis used in this development research consists of three types included product data analysis, preliminary data analysis, and final data analysis.

RESULT AND DISCUSSION

This study used a type of research and development (R & D) with the aim of producing new product designs, testing the effectiveness of existing products, and developing and creating new products (Sugiyono, 2015: 26).

1. Development of Picture Books Learning Media

The results of the development of Civics picture books by researchers were arranged based on previously designed prototypes according to the questionnaire of students' needs and literature studies obtained by researchers. With a design designed used the Photoshop application, 28 pages thick, using A4 paper (29.7 x 21.5 cm).

2. Feasibility of Picture Books Learning Media

2.1 Results of Expert Validator Assessment

The feasibility assessment by the material expert got a positive response, indicated by the value points given with an average percentage of 84.4% and included in the very feasible criteria (Riduwan, 2015: 13). According to material experts, the picture book media needed to be improved in the formulation of indicators adjusted to the four competencies (KI) included religious, social, knowledge, skills and learning objectives formulated with the ABCD pattern (Audience, Behavior, Condition, and Degree).

Evaluation of media validators got an average percentage of 80% and was included in the criteria eligible according Riduwan (2015: 13). The media validator provides input on improvements to the picture book included, (1) the images

included in the book were given the source of downloading images (internet sources); (2) the title that was originally "Picture book" was changed to "Picture Book"; (3) the material presented can be summarized again.

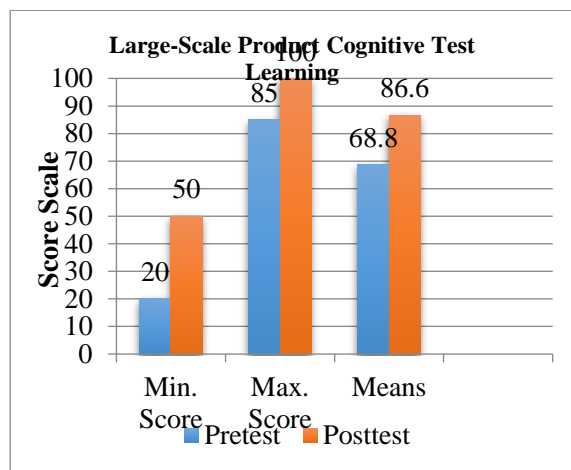
2.2 Results of Questionnaire Assessment of Student and Teacher Responses

The Civics picture book media has been declared feasible to be tested on a small scale carried out on 6 third grade students of Mangkang Kulon Elementary School 02 consisted of 3 male students and 3 female students, with different abilities. The results of the responses of 6 grade III students at Mangkang State Elementary School Kulon 02 were consisting of 3 male students and 3 female students on the Civics picture book media, agreed on 9 aspects and 1 aspect disagreed. The positive responses of students in the aspects of the book were interesting to read, the color of the cover of the images were interesting, the images in the book were clear, the books added to the enthusiasm of students, the letters in the book attracted the attention of students. The results of the questionnaire responses that received a positive response were 10 aspects. In small-scale product trials, the teacher gave a perfect score or score of 5 in 1 aspect only and the other was given a score of 4 with a percentage of 82%, while in large-scale product trials or in the research class the teacher gave a positive response with a score of 5 in 7 aspects with the total percentage increased to 94%. Picture media played an important role in the learning process. According Arsyad (in Maryani, 2013) states that, images could foster student interest and provide a relationship between the content of subject matter and the real world. The use of image media must be adapted to the topics to be discussed in learning, so that their used would be more effective and could help

students digest lessons easily (Maryani, 2013).

3. Results of Data Analysis on Media Effectiveness.

The following were the learning outcomes in the product testing of picture books, which were presented in the diagram.



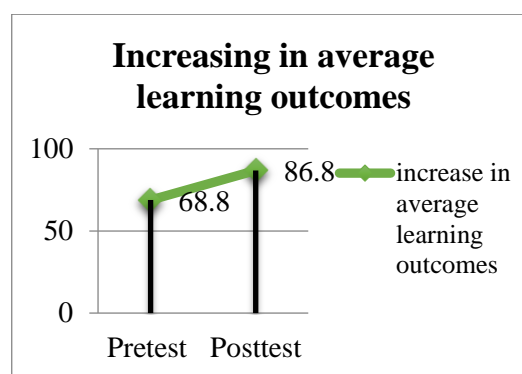
Picture 1 Large-Scale Product Cognitive Test Learning

Graph Data on student learning outcomes that have been obtained were then tested for normality used the Liliefors test, this test was used to determine the statistical technique used. Based on the results of the normality test that has been done it could be concluded that the pretest and posttest data were normally distributed with the provision that $L_o < L_t$, L_t or Liliefors table for a sample of 25 students is 0.173 / 0.1772, it was known that L_o data pretest was 0.173, and L_o data posttest well known was 0.135. Data that were normally distributed then used to test the differences in the average media of Civics picture books. The average difference test was calculated using the paired sample test formula, based on the formula used the results obtained used the table as follows

Table 1 The Result of Different Means Score of Pretest dan Posttest

Data	t-count	t-table	α	dk	Ex.
Pretest	9,18	2,064	5 %	24	Ha
Posttest	4				recived

Based on the results of the calculation, it was concluded that the effective picture book media used in Civics learning was indicated by an increase in class averages seen from the results of the pretest and posttest differences calculated by N-gain could be presented in the following diagram.



Picture 2 Increasing in Average Student Learning Outcomes

Based on this explanation in accordance with the explanation of Edgar Dele (in Arsyad, 2013: 13) argued, that the more concrete media presented to students would help students understand the material conveyed by the teacher, and would have an impact on student learning outcomes. In addition, research with images that support the improvement of children's memory, namely research by Suzuki, H, et al (2015) in the Research Teams for Social Participation and Community Health, Tokyo Metropolitan Institute of Gerontology, Itabashi-ku, Tokyo, Japan. With the research title "Long-Term Effects of Cognitive Intervention Through A Training Program for Picture Book Reading in Community Dwelling Older Adults", with the results of the study that the program to

read picture books could improve episodic memory in the long run.

Whereas the improvement in learning outcomes seen in the graph was also in accordance with Research by Pradina, Yaumil Ainin & Hastuti, Wiwik Dwi in 2017, with the title, "The Effect of Picture and Picture Learning Model towards Science Outcomes for Students with Hearing Impairment in the Class VII ", with the results of research data obtained with a minimum value of 19.00 pre-test and post-test of drinking value is 58.00. While the maximum value was 37.00 the pre-test and post-test maximum value was 88.00. While the average value of the pre- test 50 before used the image and image model was 28.50, while the average value after using the image and image model was 72.33. Based on the explanation, it could be seen that the Civic picture book media was stated to influence learning outcomes.

CONCLUSION

Based on the results of the study, it was concluded that, (1) the design of The Civics picture book developed by the researcher was compiled based on the questionnaire of teacher and student needs, including material aspects, presentation, language and graphics. Book design is made interesting according to the stage of development of third grade elementary school students; (2) picture book media material from the cultural specificity of the origin developed by the researcher, based on the analysis of the assessment of material experts and media experts, declared appropriate for the components of content, presentation, language, graphics; (3) effective picture book media to be used in learning material cultural specificity of the area of origin, on student learning outcomes with t_{count} of 9,184 and t_{table} 2,064. As an amplifier, the calculation obtained using N-gain was 17.8 seen from the difference between the pretest and posttest results.

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Improvement of Read Aloud Skills for Elementary Students Through Literacy Corner

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Abstract

This study aimed to describe literacy corner arrangement in elementary schools and improve reading skills through the literacy corner. The research method used was quasi-experimental, with the design of one group pretest-posttest $O_1 \times O_2$ (Mc Millan & Schumacher 1989: 312). The subject of this research was the third grade students of SD LabSchool, Gajah Mungkur District, Semarang City. Data were collected by tests, questionnaires, and documentation. The results of this study were the initial ability to read aloud when the pretest was 42%, then at the posttest it was 85%, while students who had not completed reached 58% reduced to 15%, this means that the literacy corner can be used to improve students' read aloud skills.

Keywords: *read aloud, literacy corner, elementary school*

INTRODUCTION

Reading activities are very important for everyone to get knowledge and experience, because the various information that is conveyed can be got by reading. In school, student reading skills are very influential on student learning success. Good reading skills will help students understand the text or reading. In elementary school, reading learning is followed by writing that start in the early grade. Reading and writing skills (literacy) are not owned suddenly, but are taught by the teacher in the school. If literacy learning (reading and writing) in the early grade does not have a strong foundation,

then at the next reading stage students will face difficulties in following learning.

Reading and writing skills are basic skills for learning, because to obtain information depends on both of these abilities. Zuchdi and Budiasih (2001: 57) revealed that the reading ability obtained in early reading will greatly affect the ability to read further. As the ability that underlies the next ability, the ability to read early requires teacher's attention. Early reading is the foundation for further learning. As a foundation, surely it must be strong and sturdy. Therefore, early read and write learning must be carried out seriously. Patience and thoroughness are needed in providing guidance and

direction to students so that learning objectives can be achieved optimally.

But in reality, the language skills of elementary school students, especially the ability to read and write are still low. Rofi uddin and Zuhdi stated that "to date, the mastery of elementary school literacy skills is still far from expectations". Likewise with Pelly (in Haryadi and Zamzani, 1996: 75) said that "reading and writing lessons that were previously the main subjects and exercises are now getting less attention, both from students and teachers". Reading aloud learning is often ignored so that students' reading skills are low. The low ability to read aloud above is a problem faced by the teacher. If the problem is not solved immediately, then students will face difficulties in other aspects of the language such as listening, speaking, and writing.

The situation the researchers felt also when the researchers made observations, researchers found a problem with the low ability to read aloud. Most students still read monotone, regardless of good loud reading techniques (such as pronunciation, intonation, punctuation, and pauses). In addition, in reading aloud learning, the teacher does not use the media except the reading books. Even though it is known that elementary students according to Piaget (in Syah, 2009) is at the end of the preoperational stage until the beginning of the formal operational stage which shows students' thinking tends to things that are concrete. Therefore the teacher must use the media in conveying learning including reading aloud learning. Based on these situation the researchers conducted research on learning read aloud by using literacy corner media

Read aloud is an activity that is a media for teachers, students, or readers together with other people or listeners to capture and understand the information, thoughts, and feelings of someone's author "(Henry Guntur Tarigan, 2008: 23). In reading aloud, the reading process is done by voicing the written symbols on the

reading. Read aloud is intended to train students to be able to read with proper pronunciation and intonation. Reading aloud learning is more emphasized by loud reading learning by the teacher. In this case the teacher as a model, students pay attention to the teacher in reading aloud. After the teacher gives an example, students practice reading in turns or students can read aloud together first, then students read aloud individually.

The purpose of reading aloud was stated by Henry Guntur Tarigan (2008: 9), namely to find and obtain information, including content, understanding the meaning of reading ". In accordance with this opinion, Sabarti Akhadiah, et al (1992: 33) also suggested that "with adequate reading skills, they would be easier to extract information from various written sources". By reading, students will know and understand the meaning behind the contents of the reading. In addition, the purpose of the read aloud done by the teacher in learning can be: 1) give examples of recognizing and saying words, 2) giving examples of fluent and expressive reading, 3) helping students understand the contents of the reading, 4) introducing various words, language structure and type of reading.

The benefits of read aloud are: 1) motivating students to start learning, 2) supporting simple reading and writing learning, 3) supporting learning material, 4) improving students' thinking skills, and 5) adding vocabulary and knowledge to students.

Read aloud steps.

The implementation of read aloud activities by reading stories can be done in four stages, namely: 1) The preparation phase, in the preparation stage that is done to choose the appropriate book, determine the purpose of reading, determine the flow of activities (initial activities, core, and closing). 2) The initial stage of reading includes activities to get students to know the book, discuss the author, title,

background and character, ask the child to predict the contents of the story through the title of the book, explore students' general knowledge, if there is a picture, review the picture, submit a brief summary build meaning by conveying the short contents of the book, making comparisons with student knowledge. 3) Stage during reading, giving examples of reading aloud and right in pronunciation, pauses, gestures / gestures, expressions, as well as intonation, interacting, raising responses and discussions of students (the teacher can stop reading activities, asking students to convey understanding on readings that are heard, clarify and rectify misconceptions, and ask students to make further predictions on the continuation of the story). 4) The stage after reading aloud activities does not always have to be followed by further activities, but further activities can also be given. Follow-up activities are intended so students can continue their learning and understand reading. Activities that can be selected and or developed, for example; 1. Give discussion questions (where is the location of the story ?, who is the main character? What is the problem? How do they get the solution? What do the authors want to say to us / the reader?) 2. Discuss the contents of the story (to increase understanding of the contents stories, students are asked to discuss the contents of the story with other students) 3. Discuss their responses to their stories and experiences, other story texts, and their knowledge of the world. 4. Retelling the contents of the story verbally, written and or in the form of images. 5. Students can also be asked to retell the contents of the story in the form of a story map (for example, by asking, what happened at the beginning, middle and end of the story?) 6. Invite students to answer imagination questions by imagining if they are characters (close your eyes, imagine you are the characters and experience everything, what will you do?) 7. Ask students to reflect on their understanding of the text 8. Ask students to do think

aloud (convey the results of thoughts on stories that are heard / listened orally and or written) 9. Teacher train students to improve their metacognitive abilities (inviting students to think about what their friends or other people think of the story being read) 10. Teachers can also provide fun questions (for example, who is your favorite character and why? If you rewrite the story and close the story, what will you change? If you can meet one of the characters in the story, who will you meet then what will you convey to him?) 11. Students can be given the task of conveying their understanding of reading by Think Aloud (expressing opinions and understanding of stories read orally and or written) and Writing Aloud (conveying students' understanding and ideas of reading in written form).

Literacy Corner

Literacy corner is the collection of textbooks and non-subject book collections without having to go back and forth to the library, because books are also available in the classroom. With the reading corner the class brings the book closer to students, and can foster students' interest in reading. Sources and Materials in literacy corners: (1) Short Stories of children, (2) Children's novels, (3) Poetry, (4) Picture story books, (5) Writing of individual student work, (6) Articles from magazines, (7) Articles from newspapers, (8) Texts of Information, (9) Biographies, (10) Autobiographies, (11) Texts of speech, (12) Historical documents, (13) Various contents of other selected stories

METHOD

The method used in this study was a quasi-experimental method, with the design of one group pretest-posttest: O₁ X O₂ (Mc Millan & Schumacher 1989: 312) Description: O₁: initial test; O₂: final test; X: Student understanding of literacy. The research conducted at Labschool UNNES

Elementary School, Gajahmungkur District, Semarang City. The data collection in this study were: (a) tests, (b) questionnaires, and (3) documentation.

RESULTS AND DISCUSSION

Arrangement of literacy corner was not just collecting. The number of collections in the literacy corner was not enough to attract students to visit and do activities in it. A literacy corner located in the corner of the class must be decorated beautifully so that students feel at home lingering in it. With materials and equipment that were easily available

Literacy corners in the classroom were arranged and decorated beautifully and then given additional bookshelves to make it easier to put books according to the type of reading. In the literacy corner there were short stories, children's novels, poems, illustrated story books, Big Books, the work of students, magazines and others. The following was an example of a literacy corner.

Figure 1. Literacy Corner.



The way to maintain literacy corners was to periodically play collections in other classes. If collections from other classes have been read, the collection can be submitted to the library, then the literacy corner will be replaced by another collection.

The results of the pretest obtained from the initial ability to read aloud students of Labschool Elementary School, Gajah Mungkur District as follows.

Table 1. Pretest Results

No	Accomplishment	Initial Data
1	Means	61
2	Min. Score	42
3	Max. Score	83
4	Not Completed	58 %
5	Completed	42%

The data in table 1 showed that the average initial ability before applied read aloud learning using literacy corners was 61 with the lowest score of 42 and the highest score of 83, complete scores 42% and 58% have not fulfilled the specified completeness. Based on the pretest above, the things that need to be considered were: 1) the teacher asked students to choose the preferred book, 2) the teacher should give examples of good and correct reading in pronunciation, pauses, gestures / gestures, expressions, and also intonation , 3) the teacher and students interacted (asked students to make a prediction of the continuation of the story, gave questions related to the reading text, 3) asked students to imitate the good and correct reading of the teacher, and 4) students alternately being asked to take turns reading using gestures and intonations right. Postes results read aloud students will be described in the table below.

Table 2. Posttest Results

No	Accomplishment	Final Data
1	Means	81
2	Min. Score	58
3	Max. Score	100
4	Not Completed	15%
5	Completed	85%

The data in table 2 showed that the means read aloud was 81 with the lowest score was 58, and the highest score was 100, completeness 85% and 15% have not met the specified completeness (KKM 70). According to data obtained posttest, things

that need to be emphasized in the implementation of read aloud using literacy corners through 4 stages as followed: 1) Preparation. The preparation starts from: (a) chosen a book (with pictures or without images) that was clear and focusing the attention of students, (b) determined the purpose of reading (what students want to introduce / understand), (c) written the scenario (for example: what page will be used as a prediction or question and answer), 2) the initial activity of reading, the initial reading activity consisted of: (a) invited students to know the book (title, author, background, character, etc.), (b) explored main students, (c) reviewed pictures, (d) submitted brief summaries of stories, 3) during reading, students focus on (a) reading position, (b) understanding punctuation, (c) read with gesture and good intonation, and 4) after read. After read the students have a discussion about the story and about their experiences. Based on the performance data read aloud using literacy corners in elementary school students, it can be concluded that the students' final ability in reading and writing increases the pretest and posttest value data were described as follows:

Table 3. Student Read Aloud Skills

No	Respondents	Pretest	Posttest
1	R-1	58	75
2	R-2	83	100
3	R-3	58	83
4	R-4	58	75
5	R-5	75	92
6	R-6	42	75
7	R-7	75	100
8	R-8	42	58
9	R-9	58	75
10	R-10	67	83
11	R-11	75	83
12	R-12	75	92
13	R-13	42	67
14	R-14	42	75
15	R-15	42	58
16	R-16	83	100

17	R-17	58	75
18	R-18	58	83
19	R-19	75	92
	Means	61	81

Based on table 3, the ability of read aloud used literacy corners got means in pretest 61 and posttest 81, this means that all students could take part in learning activities carried out by the teacher with great enthusiasm. This was inseparable from the teacher's role in teaching literacy in the classroom. This was related to the promotion of the school literacy movement in Indonesia, especially in the K13 curriculum so that many schools were competed to make breakthroughs in the form of activities and fulfillment of facilities that lead to the school literacy movement. Thus it was necessary to increase the ability to read aloud to students.

DISCUSSION

Based on table data 2, the final means ability of read aloud used the reading corner was 81 with the lowest score was 58, the highest score was 100, completeness 85% and 15% have not fulfilled the specified completeness (KKM 70). According to the data above, there was an increasing in learning outcomes and learning completeness from 42% to 85%. Completion score was a score that describe the proportion and qualifications read aloud of students towards the competencies set in learning. Based on the score of student learning outcomes in the initial ability test showed that the percentage of classical learning completeness students have not reached 70%. After being applied read aloud using the literacy corner it turned out that the percentage of students completeness reached 85% with the number of students completed learning were 16 students from 19 students. This could prove that used literacy corners increase the read ability of

students. Through the literacy corner could make students more enthusiastic in reading. In the research that has been done it has been proven that there was an increase in the ability to read aloud used literacy corners. This could prove that literacy corners were able to improve students' read aloud abilities. Based on the results of tests conducted, it showed that there was an increase in read ability. So it could be concluded that the existence of a literacy corner in Labschool Elementary School in Gajah Mungkur District, Semarang City could contribute positively to the improvement of read aloud.

CONCLUSION

Based on the results of literacy corner research can improve students' Read Aloud ability. This can be seen from the increasing of learning outcomes and learning completeness from 42% to 85%. The final means of ability after being applied read aloud using literacy corners was 81 with the lowest score was 58, the highest score was 100, completeness 85% has met the specified completeness (KKM 70). Through the literacy corner: (1) students have a place to take collections of textbooks and non-subject book without having to go back and forth to the library, because books are also available in the class. (2) bring the book closer to students, and (3) can foster students' interest in reading.

SUGGESTION

Based on the research conducted in 3rd grade Labschool Elementary School, Gajah Mungkur District, researchers can provide advice as follows: 1) teachers must prepare and plan carefully before implementing reading aloud learning, 2) teachers should prepare literacy corners maximally, 3) teachers must conduct evaluations that can measure students' abilities, 4) teachers can use literacy corners to improve reading skills

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The Development of Sciences Teaching Materials Based On Practicum in Applies Motion Energy Concept Topic

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Abstract

This research is based on the results of early observation in 3rd grade of primary school of Patemon 02, indicated in teaching materials only used theories without any practicum activity. The purpose of this research is to develop the design, to examine the feasibility, and to test the effectiveness of science teaching materials based on practicum in applies motion energy concept topic in primary school. This typical of research is Research and Development (R&D) with Borg and Gall model. The subject of this research is the 3rd grade students of primary school of Patemon 02. The sample of this research is purposive sample technique. Data analysis techniques uses descriptive statistic, normality analysis, t-test and N-gain. The result of the research shows that development science teaching material based practice in accordance with Borg and Gall procedure of research and development. Science teaching material based practice feasible to be used in science teaching with percentage of presentation content feasibility assessment of 84% from subject expert, presentation component feasibility assessment of 80%, and from practitioner with 100% of contend and component feasibility assessment. The result of t-test analysis is t-count 8,136 and more than t-table is 2,086, accordingly H_a is received, its means learning-outcomes student results become different between before and after learning science by application of the concept of motion energy topic used science teaching material based on practicum. From the mean of learning-outcomes student results higher than before learning used science teaching material based on practicum. So it can be concluded that the science teaching material based on practicum can increase the mean of student learning outcomes in science learning, and is supported with N-gain test of pre-test and post-test reach to 0,45 by the medium criteria.

Keywords: *Practicum, Science, Teaching Materials*

INTRODUCTION

Sciences Education is an education in the field of study and all the processes that occur in it as an object. Through science education,

students are expected to understand the process, products, values, and have a scientific attitude towards Natural Sciences, and can be responsive to environmental problems.

Learning Natural Sciences should be directly observed and applied in everyday life. Learning about science is not just memorizing formulas, but also the application of concepts to everyday life. The learning resources used are very limited, only referring to LKS and BSE in the lack of other supporting books. In the learning process, students are never stimulated to do practicums or experiments on the excuse that the available teaching aids are very limited and still simple so the media is only used on certain materials. Whereas natural sciences places more emphasis on process skills and scientific attitudes, science should open opportunities to nurture students' natural curiosity.

For the sake of achieving science learning objectives in primary, then the delivery of material refers to one of the learning theories, namely Piaget's theory. Based on Piaget's learning theory, primary students are included in the concrete operational phase, which is between the ages of 7-11 years. At this stage, students are able using logic but still in the form of concrete objects, students have not can solve abstract problems. This means that children have logical operations that can be applied to concrete problems (in Rifa'i and Anni, 2012: 32).

Natural Sciences learning in primary school should provide real experiences for students, also to avoid verbalism. In connection with this, it should be presented real objects or imitation objects so that students have the opportunity to touch, take action, see, and use it as a medium of observation or experiment so as to help students understand the concept.

Based on observations of researcher at primary school of Patemon 02 the learning process carried out by the teacher used lecture learning. This will make the memorization process or the transfer of knowledge from teacher to student without an optimal understanding. Besides that there is no other supporting book, so that only refers to LKS (worksheet) and BSE. From the results of interviews, researcher assume that students must be given an innovation in learning in order

to be able to arouse enthusiasm in the learning process.

Learning by practicum has many benefits for the students. The positive impact of the application of the practicum method above encourages researcher to make improvements in the learning process by developing practicum-based science teaching materials to be able to assist students in understanding the material. According to the *National Center for Competency Based Training* (in Prastowo, 2015: 23), teaching materials are all forms of material used to assist teachers or instructors in carrying out the learning process in the classroom. Practicum is one manifestation of scientific work in learning. Direct practice will facilitate the understanding of very complex abstract concepts. This makes it easier for students to understand complicated and abstract concepts along with concrete examples that are clear and related with the situations and conditions that are faced (Uno and Mohamad, 2011: 39). While the choice of science-based science teaching materials is based on the need for teaching materials that are still very minimal and less varied, by using practical science-based teaching materials students are expected to understand the concepts and material presented. Natural Sciences learning requires integrated contextual learning with practicum to instill concepts / content that are in line with scientific literacy skills. This is relevant to the research conducted by Sistiana Windyariani, et al., In 2016 entitled "Pengembangan Bahan Ajar Berbasis Konteks dan Kreativitas untuk Melatihkan Literasi Sains Siswa Sekolah Dasar". The results of other studies were conducted by Mbah Modesta Ifeoma in 2013 with the title " *Use of Instructional Materials and Educational Performance of Students in Integrated Science (A Case Study of Unity Schools in Jalingo, Taraba State, Nigeria)*". The results showed that there were significant differences when students were taught using no teaching materials .

Teaching materials are prepared not only a set of facts, concepts, or principles that are all to be taken and remembered, but teaching materials must help students to construct

knowledge and give meaning through real experience. According to Sagala (2013: 88) students need to be accustomed to solving problems, finding something useful for themselves, and struggling with ideas, namely students must construct knowledge in their own minds. Joni (in Harijanto, 2007: 2-4) also states that good teaching materials must specify learning experiences in the form of structuring learning activities that are rich in various variations, so that they can provide an accompanying effect that is as effective as achieving instructional goals.

Related to this, researcher use practical methods in the learning process. Nugroho (in Arifin, 2015: 55) explains that learning with practicum is an important part that cannot be separated from teaching and learning activities. Practicum is the best media to develop science process skills because learning with practicum can provide opportunities for students to experience or do their own experiences that will be processed according to their cognitive abilities. Practicum-based learning is carried out with guided discovery methods that is by directly involving students in the learning process (Suparno, 2007: 77). In line with the research conducted by Lilis Kurniawati, et al, in 2015 the results of her research showed that the application of learning with practical methods is suitable to be applied in the learning process and improve students' critical thinking skills so that their learning outcomes increase.

Based on the background of the above problems, the following problems can be formulated:

1. How do you develop practicum-based science teaching materials for the application of the third-class motion energy concept primary school of Patemon 02?
2. How is the worthiness of practicum-based science teaching materials for the application of the third-class motion energy concept primary school of Patemon 02?
3. How is the effectiveness of practicum-based science teaching materials for science learning outcomes on the application of the third-grade primary

school of Patemon 02 motion energy concept?

METHOD

This study uses a research and development approach, with reasons according to the objectives to be achieved. Development research model developed by Borg and Gall (in Sugiyono, 2015: 35). According to Borg and Gall, " *educational and development (R & D) is a process used to develop and validate educational production* ". The research steps are carried out in a cyclical manner, and at every step taken refers to the results of the previous steps until finally a development product is obtained. The step are potentials and problems, data submission, product design, design validation, marking design, product test, usage test.

This type of data is qualitative data, to obtain expert validation data is carried out the dissemination of learning devices and research instruments by validators. Expert properness assessment data was obtained through a properness assessment sheet to be assessed and given input in the form of suggestions and criticisms. Practical science-based teaching materials are stated to be effective if students and teachers respond positively to learning activities by using science teaching materials for natural science learning.

The instrument used is an observation sheet from the activities of students doing practicum. The properness assessment sheet by the expert gets the value of the properness of the instrument and gets advice in the form of improvements to the *layout* and additional practicum on practicum-based science teaching materials. Questionnaire sheets are used for student and teacher responses to learning using natural science teaching materials for small-scale and large-scale tests. The *pretest* was given before *treatment* and *posttest* questions were given after *treatment*, namely learning by using science teaching materials. Data analysis technique used is descriptive qualitative analysis (learning device and instrument validation studies) and quantitative analysis (*t-test* and *gain*).

RESULT AND DISCUSSION

Development of Science Learning Materials Based on Practicum

Practicum-based Natural Science teaching materials for the application of third grade motion energy concepts were developed based on the questionnaire analysis of the needs of students and teachers, from these results some things can be known: (1) the expected form of teaching material is rectangle with A5 paper size and thickness > 12 pages, (2) display of interesting teaching materials with colored *background* and illustrations that clarify the contents of the material, as well as practical instructions equipped with real drawings to clarify the steps of the activity, (3) the contents of the expected teaching material is the content of teaching materials with straightforward language, simple with varied sentences, making it easier for students to understand the material being studied.

Properness Results of Science-Based Learning Materials Based on Practicum

This study produced a product in the form of practicum-based science teaching materials for the application of motion energy concepts to the third grade of primary school of Patemon 02. The development of teaching materials through several stages including potential and problems, data collection through questionnaire needs of students and teachers, design of teaching materials, assessment of teaching materials, design revisions, product trials, and usage trials.

Practical science based teaching materials are teaching materials that are developed by involving the activeness of students in learning. This teaching material is equipped with practical activities that can facilitate students in understanding the concept, with an attractive design and accompanied by a real picture to clarify the material. It also aims to increase students' motivation and attractiveness towards the material being studied. In line with research conducted by Citraningrum, Merdeka Dina in 2016 which stated that to facilitate students to ease the students to memorize the material, it

needs an interesting and applicable teaching materials and strategies as learning resources. This is also supported by research conducted by Sri Wahyuni in 2015 entitled "Pengembangan Bahan Ajar IPA untuk Meningkatkan Kemampuan Berpikir Kritis Siswa SMP". The results of the study show that the teaching materials can increase students' motivation so students are interested in learning science. In addition to increase student learning motivation, teaching materials also have a positive impact on student learning outcomes. This is consistent with the research conducted by Matthew C. Nwike in 2013 entitled " *Effects of Use of Instructional Materials on Students Cognitive Achievement in Agricultural Science* ".

The appraisal of the properness of science-based science teaching materials is done by using assessment instruments designed based on the Ministry of National Education (2008) and Kurniasih and Sani (2014) which are modified.

Table 1. Recapitulation of Properness Assessment of Material and Media Components

Evaluator	Component	Total score	Percentage	Criteria
Validator	Material	21	84%	Very decent
	Media	20	80%	Worthy
Practitioner	Material	25	100%	Very decent
	Media	25	100%	Very decent

Based on Table 1, it shows that practicum-based Natural Science teaching materials for the application of the concept of motion energy that has been developed, obtain a percentage of 84% included in the criteria of very decent by material experts, the percentage of 80% included in the criteria of media experts, and the percentage of experts 100% Practitioners fall into very decent criteria. In addition to providing a properness assessment, the three experts also provide suggestions for improving the science teaching materials. Improvements were made by researchers before small-scale trials.

Assessment of the properness of science teaching materials is also supported by the results of student and teacher response questionnaires in product trials with the acquisition of scores in a sequence of 92% and 100% in very decent criteria. So it can be concluded that the practicum-based science teaching material material is the application of the concept of motion energy worthy to be used in learning.

This is in line with the research conducted by Oni Arlitasari, et al, 2013, the title "Pengembangan Bahan Ajar IPA Terpadu Bebas Salingtemas dengan Tema Biomassa Sumber Energi Alternatif Terbarukan" which shows that the products developed are feasible to use but there are few revisions to the components of content properness from material experts and the presentation of the components of properness from media experts. The value obtained from material experts, 165 in good criteria and 188 material experts in very good criteria. Relevant research was also carried out by Amrina Izzatika, et al, in 2015 the title "Pengembangan Bahan Ajar IPA Terintegrasi Pendidikan Karakter Tema Matahari Sebagai Sumber Energi". The results of the study showed that the validator's assessment of the science teaching material was very good and the limited test showed the students' responses were in good criteria.

Results of the Effectiveness of Science-Based Teaching Materials on Practicum

The effectiveness of practicum-based science teaching materials, one of which is known through the improvement of students' cognitive learning outcomes. Cognitive learning outcomes of students were obtained through *pretest* and *posttest* scores. *Pretest* value obtained before learning to use lab-based science teaching materials. While the *posttest* score was obtained after learning using practical science-based teaching materials. After obtaining *pretest* and *posttest* scores, then the researchers tested the initial data of the product using the test formula Liliefors. Test Liliefors normality *pretest* value is 0.134 and *posttest* value is 0.178 with $\alpha = 0.05$ and L-table 0.183.

Based on these data it was concluded that the *pretest* and *posttest* values $< L$ -table then H_0 is accepted so that both data are normally distributed.

After the initial data analysis, then the final data analysis uses a hypothesis test with a t-test of the difference in the average *pretest* and *posttest* test to determine the differences in *pretest* and *posttest* scores. From the data above obtained an average *pretest* score of 56 and an average *posttest* score of 76, there is an increase in learning outcomes by 20. In addition the number of students who experienced completeness also experienced an increase of 4 students with a percentage of 18% to 16 students with a percentage 73% at *posttest*. The results of differences in the average *pretest* and *posttest* values are presented in table 2.

Table 2. T-test Data Value *pretest* and *posttest*

Data	(α)	D			Information
)	k			n
<i>Pretest</i>	5	2	2,080	8,13680802	Ha
<i>Posttest</i>	%	1		7	accepted

Based on table 2, it is obtained t_{count} 8,136 and t_{table} obtained from the calculation and then confirmed in the t distribution value table which is 2.080. T-count greater than t-table then H_a is accepted. So it was concluded that practicum-based natural science teaching materials were effectively used in science learning material on the application of class III motion energy concepts, because there were differences in the average *pretest* and *posttest* scores.

The next step is to calculate *N-gain*. From processing the data, the results are obtained in table 3.

Table 3. Average Improvement Test (*Gain*)

Category	Value
Gain value	0,465137202
Average <i>pretest</i>	55,54545455
<i>Posttest</i> average	76,22727273
Criteria	Medium

Based on Table 3 is known that the average *pretest* score 56 and the average score of *posttest* 76. Average increase (*gain*) of data *pretest* and *posttest* 0,46 included in the criteria being the average difference of 20. This is consistent with research previously carried out by Khoiriah, Tri Jalmo, Abdurrahman, in 2016 entitled "*The Effect of Multimedia-Based Teaching Materials in Science Toward Students' Cognitive Improvement*". The results showed that multimedia-based teaching materials in science learning had a significant effect on student cognitive learning outcomes as shown by an average of 0.78.

Use of science-based science teaching materials material the application of the concept of energy of motion is a new learning source obtained by students. Students look enthusiastic about the learning resources. Students follow the learning steps in the instructional materials well and according to instructions, so that students can learn independently.

In addition to the results of *pretest* and *posttest* learning , the effectiveness of teaching materials in this study was supported based on student and teacher response questionnaires after participating in learning using practicum-based science teaching materials conducted on large-scale trials. There are 4 assessment criteria, including very decent 80% -100%, feasible with a range of 60% -80%, quite feasible with a range of 40% -60%, and less feasible with a range of 20% -40%.

Based on these data it can be concluded that the students' responses to the use of practicum-based science teaching materials received a positive response, it is stated that the teaching materials included in the criteria are very effective for use in science learning. Practicum-based Natural Science teaching materials are said to be very effective with the results of the questionnaire responses of students getting an average score of 20.4 with a percentage of 92.7% included in the criteria very effective. With the lowest percentage result of 77% in the message aspect of the sentence and the highest percentage of 100% in the usefulness aspect of teaching material in

this case the students claimed to be happy because the practicum-based science teaching materials can facilitate students in learning, the activities are fun because there are lots of practicum so students experience it directly, equipped with instructions for using practicum and the problems are easy to understand. The results of the questionnaire responses of the third grade teachers of primary school of Patemon 02 showed a very positive response after learning using practicum-based science teaching materials. This is indicated by the acquisition of 100% percentage in all aspects.

From the results of the study concluded that practicum-based science teaching materials are effective to improve student learning outcomes in science learning material application of the concept of motion energy. Recapitulation of the results of process skills assessment, namely practical activities are presented in table 4.

Table 4. Recapitulation of Process Skills Assessment Results

No	Practice	Average Score	Criteria
1.	Windmill	85	Good
2.	The plane flies from paper	93.5	Very good
3.	Rockets	85	Good
4	Simple steamship	86	Good
5.	Spiral paper	85	Good
6.	Water wheel	90	Good
Average		87.4	Good

Based on Table 4 shows that cognitive learning outcomes are supported by student process skills while doing practical activities. Because the fact is that by doing practical work, not only psychomotor students will get better, but practicum activities to support students' cognitive with the score are in good criteria. Material preparation covers all components of the Natural Sciences, and emphasizes more on process skills and scientific attitudes. In accordance with the opinion of Cain and Evan (1990) natural sciences as a process that is

understanding how to obtain natural sciences products. So that the instructional materials are prepared through the scientific method, that is, with a variety of practical practicum activities that are able to improve students' understanding so that learning is more meaningful. In addition, it is also supported by learning theories, among others, Piaget's cognitive development theory, constructivism theory, Vygotsky's theory, and cooperative learning theory. Where these theories explain that primary school children are still in the concrete operational phase so that they need media to visualize abstract objects, and learning must involve the active role of students to try themselves so that learning is more meaningful.

These results are in line with the research conducted by Yuni, et al., In 2013 the title "Application of Product-Based Biology Practicum Module to Improve Students' Science Process Skills (KPS) in Class X of Lemahabang 1 State High School, Cirebon" . Based on the results of the study it can be concluded that the application of the biological practicum module can improve science process skills, so that the cognitive learning outcomes of students can be supported through practicum.

Development of practicum-based science teaching materials has advantages, including: (1) instructional materials make students believe more in the truth or conclusions based on their own experiments rather than just receiving information from teachers or books, (2) teaching materials present presents practical methods that emphasize students so that it is more active in the learning process, (3) this teaching material has differences with other books, including teaching materials designed according to student characteristics, involving the active role of students in discovering concepts through several practicums and observations, there are guidelines for using books, this teaching material is accompanied by group and independent tasks so as to increase student activity, there is a final evaluation, enrichment and improvement, and is equipped with a process skills assessment rubric in each practical activity.

CONCLUSION

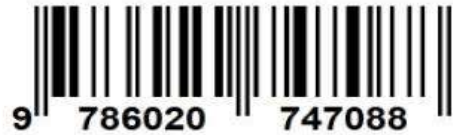
Based on the discussion and data analysis in the study can be summarized as follows: (1) practicum-based science teaching materials for the application of motion energy concepts to the third grade were developed based on the questionnaire analysis of the needs of students and teachers on science teaching materials covering aspects of appearance, content, and language; (2) based on the assessment of material, media, and practitioner experts and supported by the responses of students and teachers in product trials stated that practicum-based science teaching materials are very suitable to be used in science learning material application of the concept of motion energy; (3) practical practicum-based natural science teaching materials are used to improve student learning outcomes with an average increase of 0.46 included in the medium criteria.

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