

## CHAPTER I

### INTRODUCTION

#### A. Background

In the world of education test used as an evaluation tools. These include quizzes, test, written evaluation, and grades. Evaluation is very important to evaluate learning. Student evaluation usually focused on achievement, but many schools assess behaviors and attitudes. According to Gronlund in Slavin (2009) student evaluations serve six primary purposes; feedback to students, feedback to teacher, information to parents, information for selection and certification, information for accountability, incentives to increase student effort. Evaluation can be tool for student to improve their spirit in learning.

Tests would be right with the curriculum enacted. Schools in Indonesia in 2010-2014 using KTSP curriculum. An International in Indonesia used KTSP Curriculum and Cambridge Curriculum. National Education System Law No. 20 in 2003 stated Education is conscious and deliberate effort to create an atmosphere of learning and the learning process so that learners are actively developing the potential for him to have the spiritual strength of religious, self-control, personality, intelligence, noble character, and skills needed, society, nation and State (Ministry of National Education Republic of Indonesian law number 20, 2003).

National education work to develop the skills and develop character and dignified civilization within the framework of the intellectual life of the nation, aimed at the development of students' potential to become a man whom believed, and of fear of God Almighty, noble, healthy, knowledgeable, talk, creative, independent, and be a citizen of a democratic and responsible. (Ministry of National Education Republic of Indonesian law number 20, 2003)

The National Exam is a process of evaluation of the learning process for 3 years in junior high. National Examinations conducted in 2010-2014 using KTSP curriculum. KTSP is operational curriculum developed by and implemented in each educational unit. Curriculum consists of educational objectives educational unit level, the structure and content of education level curriculum, school calendars, and syllabus (BSNP, 2006). Indonesia National Examination called INE, is National Examination that conducted in Indonesia.

Based on Permendiknas number 22 (2006) on content standards curriculum KTSP in science subjects at junior intended to acquire basic competencies in science and technology as well as cultivate critical thinking, creative and independent. KTSP intends to cultivate critical thinking, creative and independent. Therefore, of course, the evaluation should have criteria based on the object and purpose of the curriculum.

Cambridge International Examination is the world's largest provider of International education programmers and qualifications for 5 to 19 year olds. More than 900 schools in over 160 countries are part of the Cambridge learning community included Indonesia. Then, Cambridge International Examination be one of benchmark International. According to a division of Cambridge Assessment (2013), there are some of the reasons why they choose Cambridge:

- (1) A thousand of learners use our qualification to get places at universities worldwide.
- (2) Our international education programs have a proven reputation for being an excellent preparation for university, employment and life.
- (3) We are a part of the University of Cambridge and a not-for-profit organization.
- (4) We help Cambridge schools and teachers prepare their learners to be confident, responsible, reflective, innovative and engaged.

- (5) We offer a clear structure to guide learners' progression from the start of primary to the end of secondary education.
- (6) Our curriculum is flexible to integrate and stimulating to teach. Schools can choose all or part of it to suit their learners' need.
- (7) We offer a wide range of subjects-available in any combination.
- (8) We provide first-class support for teachers through publications, online resources, training and professional development.
- (9) We invest constantly in research and development to improve our programs and qualifications.
- (10) 98 per cent of Cambridge schools say they would recommend us to other schools.

Many schools in Indonesia that their students take Cambridge International Examination to continue the study abroad. There are schools use Cambridge curriculum combine with national curriculum to conduct learning. Then, Cambridge International Examination can be used as a comparison of national Examination. This can be done to see the extent of alignment national Examination between Cambridge International Examination as benchmark international.

The International School usually used Cambridge International Examination, not only National Examination. An International School is a school that promotes international education, in an international environment, either by adopting an international curriculum such as International Baccalaureate and Cambridge International Curriculum (Keumala, 2013). Issues to be analyzed by the author, alignment National Examination and Cambridge International Examination in cognitive process dimension and knowledge dimension. Cambridge International Examination called CIE and Indonesia National Examination called INE. The research would give useful information for education in Indonesia. Mainly evaluation for INE in order

become benchmark international future like CIE and Indonesia has evaluation which avowed in International.

## **B. Research Problem**

The research of this problem of this study is “how is alignment level of Cognitive process dimension and Knowledge dimension in science Indonesian National Examination and Cambridge International Examination IGCSE level in secondary education test items?”

## **C. Research Questions**

Elaborating the research problem, the research attempts to explore the following questions:

- (1) How is alignment in Science Indonesia National Examination (INE) and Cambridge International Examination (CIE) IGCSE level?
- (2) How is discrepancies by content in Science Indonesia National Examination (INE) and Cambridge International Examination (CIE) IGCSE level?
- (3) How is discrepancies by cognitive process dimension in Science Indonesia National Examination (INE) and Cambridge International Examination (CIE) IGCSE level?
- (4) How is discrepancies by knowledge dimension in science Indonesia National Examination (INE) and Cambridge International Examination (CIE) IGCSE level?

## **D. Limitation of Problem**

In order to make the research become more focused, the problem is limited as follow:

- (1) Test items that will analyzed are test items of science Indonesia National Examination (INE) and Cambridge International Examination (CIE) IGCSE level secondary education year 2011-2013.
- (2) Test item will analyzed on proportion content in science Indonesia National Examination (INE) and Cambridge International Examination (CIE) IGCSE level.
- (3) Test item will analyzed on proportion Cognitive process dimension according to C1-C6.
- (4) Test item will analyzed on proportion Knowledge dimension according to Factual, Conceptual, Procedural, and Metacognitive.

#### **E. Research Objectives**

This research objective is specified as follow:

- (1) To analyze alignment in Science Indonesia National Examination (INE) and Cambridge International Examination (CIE) IGCSE level.
- (2) To analyze discrepancies by content in Science Indonesia National Examination (INE) and Cambridge International Examination (CIE) IGCSE level.
- (3) To analyze discrepancies by cognitive process dimension in Science Indonesia National Examination (INE) and Cambridge International Examination (CIE) IGCSE level.
- (4) To analyze discrepancies by knowledge dimension in Science Indonesia National Examination (INE) and Cambridge International Examination (CIE) IGCSE level.

#### **F. Operational Definition**

##### **1. Porter Alignment Index**

Porter alignment index is one of method to measure alignment. Porter alignment index founded by Porter. To measure the degree of alignment

Porter (2002) explained it, use a uniform language for describing instruction, assessment, instructional material, and content standards make it possible to build meaningful indices of alignment. This method use matrix for measure alignment. Result of matrix is calculated by formula

## 2. Alignment between Indonesia National Examination and Cambridge International Examination.

This research is measure alignment between Indonesia National Examination and Cambridge International Examination. Porter alignment index is used for measuring alignment both of examinations. Every questions are analyzed by content, cognitive process dimension, and knowledge dimension. Then, judgment by expert judgments. After every questions have analyzed make matrix. In the end, the matrix used for measuring and calculating by Porter Alignment Index formula. Finally, the researcher the alignment and there are discrepancies both of examinations.

## 3. Discrepancies of Indonesia National Examination and Cambridge International Examination

Discrepancies is differences something. Discrepancies both of examinations are discrepancies by content, Cognitive process dimension, and knowledge dimension. Discrepancies occurred because the result of alignment is not 1(perfect alignment). If the alignment is 1, it is means there is no discrepancies.

## G. Significant of Research

This research is expected to give benefits for practical and researcher. For practical, this research can be information and as tools to improve the quality of education in assessment. Not only for Indonesia National Examination, but for Cambridge International Examination IGSCE level. Practical like as teacher, other researchers, evaluator, etc. for researcher in giving contribution towards the development of science education in assessment.

