

# CHAPTER I

## INTRODUCTION

### A. Background

Currently the appearances of schools which are labeled as an international school become its own phenomenon in Indonesia. An international school was initially organized to meet the needs of education for foreign children who live in Indonesia. It was provided to serve the children of expatriate business people, diplomatic families and the wealthy parents who wanted to prepare their children for overseas college education (Vietnam news, 2012). International schools were typically identical with the use of curriculum and language of instruction that has been recognized globally. Usually the adopted curriculum is the curriculum that was accredited abroad or has gained worldwide recognition, such as International Baccalaureate (IB) and Cambridge curriculum (CIE).

Curriculum is one of the important aspects in education which determines the direction and become the benchmark of educational objectives. This is probably the reason why many people state that curriculum has a central position in any educational efforts. Meanwhile, regarding the function of curriculum, Kartika (2010) has her own opinion that it may depend on the school. Each school has their stated objectives and those are listed in the curriculum.

As we all know there are two strikingly different types of schools i.e. national school and international school. They both have curriculum as a fundamental of an educational institution. In addition to the language of instruction that made the difference in the two schools, the curriculum adopted by them is also different. International school adopts educational standards of country that has certain advantages in the area of education. In other word, the curriculum used has worldwide recognition. Therefore, it is believed the graduates have the ability of international competitiveness (Hidayat, 2011). From many international schools in Indonesia, there is also one international school which is located in Tangerang that applies Cambridge Curriculum (CIE) as the school curriculum.

Each curriculum contains a number of objectives to be achieved which basically it is purposed to prepare students to have capabilities for their life. Cambridge International Examinations (CIE) is the world's largest provider of international education programs. It provides four stages of qualifications for 5–19 year olds. And Cambridge IGCSE (International General Certificate of Secondary Education) is one of curriculums in the qualification Cambridge Secondary 2 for learners aged 14-16 years. There are many goals which have been established in the Cambridge curriculum in order to equip Cambridge learners to confident, innovative, and responsible and engaged. The curiosity to investigate on which goals and skills in Cambridge IGCSE curriculum are promoted in learning latent heat topic become point to discuss in this research. In the curriculum, the skills should be achieved has been listed. In an attempt to be accordance with what expected in the curriculum, teachers should have a strategy for teaching in order to lead their students to acquire those skills expected in the curriculum. The next point in this research which is interesting to examine is about the teaching strategy used.

Teaching strategy is a tactic, strategy or plan to use in teaching to allow students to have access to the information being taught. It is one of the most effective means of helping students in learning (McNamara, 2009). The following is brief descriptions of the instructional strategies which are classified into four categories, i.e. direct instruction, indirect instruction, interactive instruction and individual instruction.

According to McGrawHill Education Website, direct Instruction is a teacher-directed instructional method where everything is taught until it is fully understood. It is highly teacher centered which involving large amounts of teacher talk, questions and answers. Pearson (2010) states that teacher conducts immediate correction on student errors in this type of instructional strategies. Finally, facts, rules, and action sequences are passed on to students and every concept is reviewed thoroughly to ensure mastery. Indirect Instruction is instruction strategies which tend student centered. In this instruction, students are

highly involved in learning process and it presses responsibility for learning on the student (Jahr and Dr. Wysocki, 2011). However, it does not mean in this instruction the role of teacher is negligible. The role of teacher is still being required, but it shifts from lecturer / director to facilitator, supporter, and resource person.

Interactive instruction is instruction strategies which employs groups of learners. It relies on discussion and sharing among participants. Students are invited to participate in the conversation during discussion. Students can learn from peers and teachers. In this framework, both students and teachers are central to process. Teachers are responsible for planning, teaching, and facilitating sequences integrated with technology, meanwhile students are responsible for constructing and demonstrating knowledge as well as collaborating with peers to create knowledge (Sessoms, 2008). Other category is individual instruction. Individual instruction is instructional methods that refer to independent learning. It encourages students to take responsibility for planning and pacing their own learning. The instructional process is conducted to foster the development of individual student initiative, self-reliance, and self-improvement which has purpose to enhance individual potential.

According to information described above, this research will examine whether the teaching strategies used by teachers who are teaching the Cambridge IGCSE syllabus in latent heat topic reflect efforts in achieving compliance of the goals contained in the curriculum. Using the case study method, it will examine how the curriculum objectives reflected in the learning process at one international school in Tangerang that applies Cambridge IGCSE as the school curriculum.

## **B. Research Problem**

Based on the background described in advance, the question represents an overview of the research issues is: “does teaching strategies used in latent heat topic reflect efforts in achieving compliance of the goals contained in the curriculum?”

**Euis Umi Kulsum, 2013**

The Implementation Of Physics Teaching Strategies Refers To Cambridge IGCSE Curriculum In Latent Heat Topic

Universitas Pendidikan Indonesia | repository.upi.edu | perpustakaan.upi.edu

## 1. Research Questions

The research problem focuses on three specific aspects as the following research questions:

- a. Which goals in Cambridge IGCSE curriculum are promoted in learning latent heat topic?
- b. Which skills and competencies should learners acquire through Cambridge IGCSE curriculum in learning latent heat topic?
- c. How does the teacher organize content of latent heat topic?
- d. What kind of strategies used while teaching latent heat topic in an effort to achieve compliance of the goals contained in Cambridge IGCSE curriculum?

## C. Aims of Study

This study has three objectives as follows:

- a. To analyze which goals in Cambridge IGCSE curriculum are promoted in learning latent heat topic?
- b. To analyze which skills and competencies should learners acquire through Cambridge IGCSE curriculum.
- c. To analyze how the teacher organize content of latent heat topic.
- d. To analyze kind of strategies used while teaching latent heat topic in an effort to achieve compliance of the goals contained in Cambridge IGCSE curriculum

## D. Limitation of Research

The limitations of this research are:

- a. This research is limited to physics a teacher who are teaching Cambridge IGCSE at one international school in Tangerang that implements Cambridge IGCSE curriculum.
- b. The research was taken at the first meeting of the topic.

- c. The students' characteristic (lower, medium or high achiever) is not specified.

## **E. Significance of Study**

This research will yield useful information for:

1. Prospective Teacher

Prospective teachers (physics teachers in particular) who want to apply to school-based Cambridge curriculum; this research will be helpful in terms of seeking information regarding teaching strategies used in learning. So it would be easier to adapt in conducting appropriate teaching which is demanded by the schools.

2. Teachers in General

This research is useful for teachers in general to know what teaching-strategy supports are provided by CIE. Through this research, teachers also can take advantages to know the physics teaching strategies are implemented by using Cambridge curriculum.

3. Researcher

This research can also be used as a reference for future research in area of investigating the gap between intention and its implementation of Cambridge IGCSE curriculum. Furthermore it is also aimed for contributing to theory in the domain of educational research.

4. Policy Makers

For policy makers, this research is also useful in term of sharing knowledge to inform in decision making and policy development in the domain of education. It is also as an expectation in contributing to improve the quality of education.