THE DEVELOPMENT OF AN INTERACTIVE MULTIMEDIA COURSEWARE TO UPGRADE ANALYTICAL THINKING SKILLS VIA INQUIRY-BASED LEARNING APPROACH IN BASIC SCHOOL

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Abstract
In Indonesia, limited amount of research has been done to investigate analytical thinking capabilities of students from the point of view of inquiry-based learning approach. In view of the objectives of the present educational system to develop the quality manpower for it to enter the new knowledge era, better understanding of the resourcefulness of Indonesian students and factors which could affect or enhance it becomes more crucial. The possibility of integrating interactive multimedia technology into the teaching of thinking skills via the school-based network system that is already in placed in Indonesian smart schools today would be of concern to the educator and policy makers.

A. Analytical Thinking
The emphasis upon rote memorization on repetitive skill drills in the public school curriculum has frequently meant that “problem-solving methodologies lie somewhere in the cracks an cobwebs of cluttered, unkempt classrooms” (Wright 1977, 53). One educator described the typical curriculum in such schools as being “organized in lock-step fashion so that all children pass through the same sequences, ideally at the same ages, preferably on the same days (Katz and Chard 1997, 4). This lack of emphasis upon the ability to solve problems through an analytical thought process may mean that students are unprepared for the “complex nature of the twenty-first century challenges” (Orey 1998, 242).

Smith (1995) discriminated between students of highly analytic and non-analytic minds as the following:

1. Careful and systematic in attacking problems as to having no method for attacking new material.
2. Can read directions and immediately choose a point at which to begin reasoning as to misunderstanding or skipping direction.
3. Keeping sight of goals while thinking through the problem as to failing to keep the purpose in mind.
4. Pulling out key terms and try to simplify the material as to failing to apply present knowledge to new situations.
5. Breaking larger problems into smaller sub problems as to passive in thinking and answering questions only on the basis of few clues.
6. Active and aggressive in seeking meaning as to using “impression” or “feeling” arrive at answers.
7. Applying relevant old knowledge to the new problem as to carelessness in considering detail and jumping around from one another.