

A Research and Development of the Measurement and Assessment Integrated Learning System in Primary School

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Abstract: The main purpose of this research was to research and develop the measurement and assessment integrated learning system in primary school and the three specific purposes were to construct, try out and improve the system. The samples for evaluation research consisted of teachers, students, administrators, and students' parent from primary school in Chachoengsao and Samutprakarn provinces. Data were collected by questionnaires, tests, document review, observation and interview. Data were analyzed by using descriptive statistics and content analysis. The findings of this study were from the initial part of the whole research summarized as follows; measurement and assessment integrated learning system in primary school consisted of three components 1. input: integrated units, standards and benchmarks, teachers, students, administrators, and students' parent; 2. process: planning, designing, implementing measurement and assessment and feedback; 3. output: teacher growth in integrated measurement and assessment skills and attitudes towards in integrated measurement and assessment and students growth in knowledge, skills, and moral.

Keywords: System, Integrated learning, Measurement and Assessment

Introduction

Educational reform in Thailand has brought changes in curriculum, teaching and learning processes. Classroom teaching has become more student-centered, The teacher's role has changed to promote students accountability and responsibility for their own learning (Department of Education, 2002). Integrated learning was one of the teaching and learning strategies suggested for this reform because no subject is sufficient by itself and integrated learning, which combines subject areas is more efficient in the real classroom setting. (Jacobs,1989; Kaemane, 2004). However, the recent research showed some difficulties of integrated learning implementation such as teachers' misconception on the integrated learning, the lack of teamwork, the separation in measurement and assessment. This problems make students low achievement (Kanchanavasee and other, 2005).

By this reason resulted, the researcher planned to research and development of the measurement and assessment integrated learning system in primary schools. The purposes of this study are to develop teachers understanding and positive attitude of integrated learning. So they can efficiency adopted measurement and assessment integrated learning system with teaching practice. Consequently, encourage student knowledge, skills, and moral.

Objectives

The main objective of this research was to research and develop the measurement and assessment integrated learning system in primary school. The three specific purposes were:

1. to construct the measurement and assessment integrated learning system in primary school.
2. to try out the intervention to address the effectiveness of the system.
3. to improve the system.

Research Methodology

The research methodology was a research and development to the development of the measurement and assessment integrated learning system in primary school. The study can be divide to three phases as follows:

Phase1: Constructing the measurement and assessment integrated learning system

1.1 Conducted documentary research in state, problems, and model of the integrated learning management, measurement and assessment integrated learning in primary school at Thai society context. There were 2 types of document 1) Primary source including educational reform policy, basic education curriculum, education quality assessment, school's policies and curriculum and 2) Secondary source; journals, text, article, and dissertation.

1.2 Survey research will be conducted to examine teacher' needs assessment in measurement and assessment integrated learning system

Phase 2: Trying out the system

The system will be implemented with fourth, fifth and sixth graders and their teachers at school in Chachoengsao and Samutprakarn provinces. To examine the effectiveness, experimental research design will be employed. The implementation will last for a semester.

Phase 3: Improving the systeml

The researcher will assess result the measurement and assessment integrated learning system consisted of utility, feasibility, propriety and accuracy.

Population and Samples

The population in this study were:

1. The fourth, fifth and sixth graders from primary school in Chachoengsao and Samutprakarn provinces.
2. Teachers who taught the fourth, fifth and sixth from primary school in Chachoengsao and Samutprakarn provinces.
3. Administrators
4. Students' parent

The samples of two schools, one from Chachoengsao province and the other one from Samutprakarn province were purposively sampled because the research wanted collaboration from schools.

Research Instruments

Research Instruments used to collect data include:

1. Supplementary document that consisted of concept, principle, method and process of integrating learning units, integrating learning management , integrating learning measurement and assessment, and growth scores.
2. The measurement and assessment integrated learning system in primary school manual that consisted of concept, principle, purposes, component, process, and criterion of the measurement and assessment integrated learning system
3. Teacher achievement test and performance test in measurement and assessment integrated learning
4. Attitude scales to measure teacher' attitudes towards measurement and assessment integrated learning
5. Questionnaires to assess the students, teacher, administrators and students' parent opinions towards measurement and assessment integrated learning
6. Evaluation test to assess result after using measurement and assessment integrated learning system consisted of utility, feasibility, propriety and accuracy.

Data Collection

The data were collected by questionnaires, tests, document review, observation, focus group and interview.

Data Analysis

Both quantitative and qualitative techniques will be used in the present data analysis. Descriptive statistics such as means, standard deviations, growth score and percentages will be used to investigate teachers' growth in integrated measurement and assessment and students' growth knowledge, skills, and moral; content analysis will be employed for to present the needs assessment data open-ended questions.

Research Results

The documentary research result shows the measurement and assessment integrated learning system in primary school consisted of three components in figure 1

Figure1: *Measurement and assessment integrated learning system components*

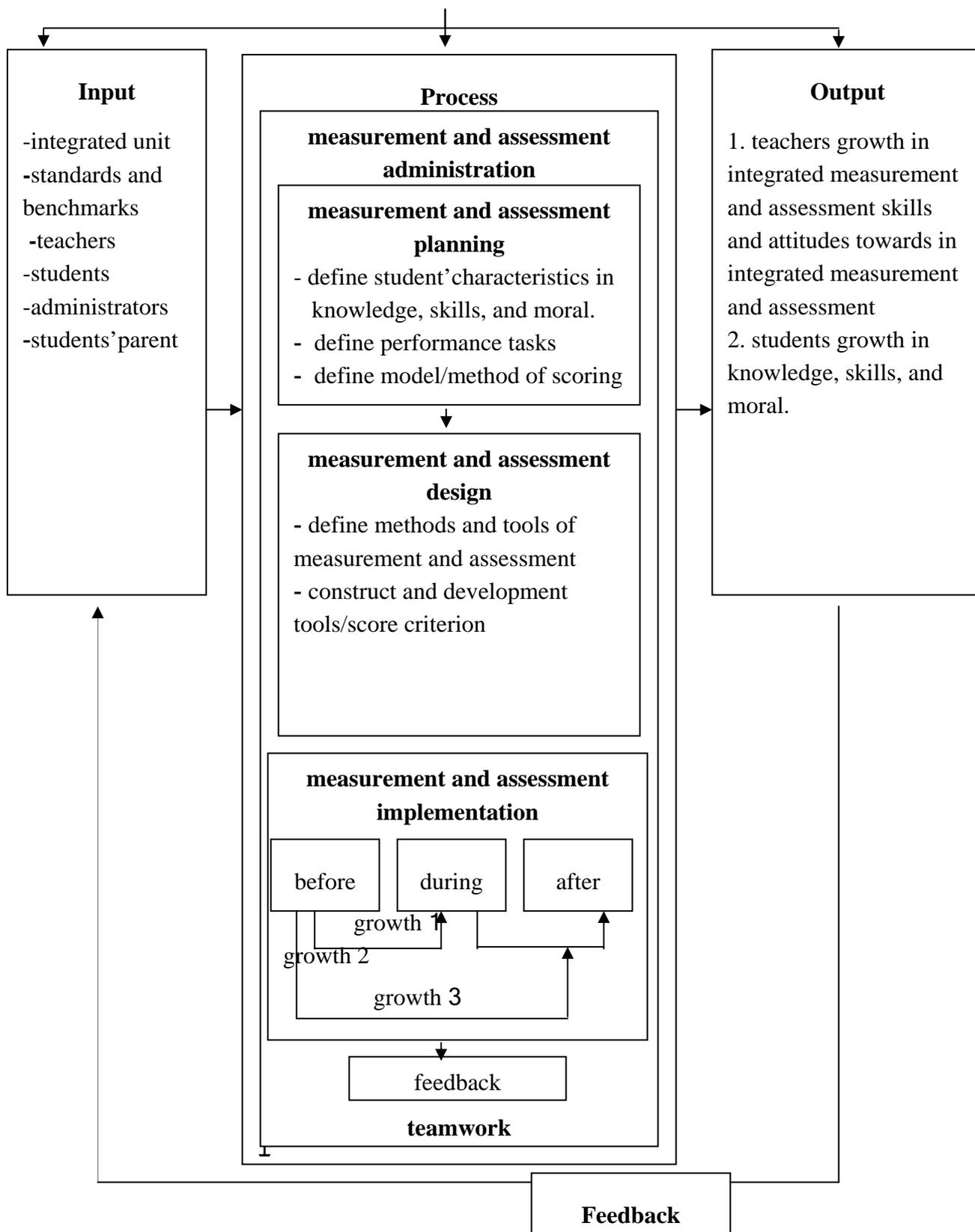


Figure 1 shows the measurement and assessment integrated learning system in primary school that appropriate Thai culture as follow:

1. Input component

The first component consists of integrated units that include four steps; 1) select the theme 2) analyse the content relation; 3) write lesson plan 4) examine the integrated units. Standards and benchmarks to compare student achievement. Prepare knowledge and understanding of teachers, students, administrators, and students' parent about measurement and assessment integrated learning system.

2. Process component

The second component consists of planning to define students' knowledge, skills, moral, performance tasks , model ,and method of scoring designing to define methods and tools of measurement and assessment, construct and development tools/score criterion implementing to measurement and assessment in before during and after each learning unit and feedback

3. Output component

The third component consists of teachers' growth in integrated measurement and assessment skills and attitudes towards in integrated measurement and assessment and students' growth in knowledge, skills, and moral.

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