



## Compulsory education quality development model with a focus on the desired outcomes of learning based on equal and inclusive growth

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### Abstract

The purposes of this study were to 1) investigate the concept of compulsory educational quality with a focus on desired outcomes of learning based on equal and inclusive growth; 2) examine the needs, problems, and guidelines for the development of compulsory educational quality; 3) develop a model for the development of compulsory educational quality; and 4) to verify the model and a manual. The key informants consisted of 37 experts and 364 administrators. The instruments used were 1) a conceptual synthesis table, 2) a focus group discussion, 3) a developed model, and 4) a verifying form. The data were statistically analyzed by percentage, frequency, mean, and standard deviation. The results were summarized as follows: 1. The concepts of compulsory educational quality were divided into two levels. 1.1) The primary level consisted of 5 major concepts with 17 minor concepts and 70 indicators. 1.2) The lower secondary level consisted of 5 major concepts with 23 minor concepts and 100 indicators. The confirmation results were overall at the highest level and passed the set criteria at 3.51 or higher. 2. The needs, problems, and guidelines for the overall development of compulsory educational quality were at a high level in every aspect. 3. A model for developing compulsory educational quality with a focus on desired outcomes of learning based on equal and inclusive growth, named the "LIASM" Model, consisted of seven components. 4. The verifying results of correctness, appropriateness, feasibility, and utility of the model and a manual for developing compulsory educational quality were overall at the highest level and passed the set criteria of 3.51 or higher.

**Keywords:** compulsory education quality development model, desired outcomes of learning, equality, inclusive growth

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### 1. Introduction

According to the World Bank Group, quality education for all in Thailand has been achieved over the past 25 years as Thailand has achieved significant development in the expansion of basic education and bridging the gap among socio-economic groups through sustained attempts to increase the number of schools and compulsory education. [1]

Compulsory education in Thailand refers to an educational period that is mandated by the government and expected of everyone. In Thailand, students must complete a basic education comprised of nine years: six years of primary school and three years of lower secondary school, consistent with Chapter 2 of the National Education Act B.E. 2542 (1999) and the Amendments (the Second National Education Act B.E. 2545 (2002) [2] regarding educational rights and duties. Section 10 stipulates that in the educational provision, everyone must have the same rights and chances to receive free, public basic education for at least 12 years. On a worldwide basis, such education is provided at both high quality and cost-free.

Since 2008, the Bureau of International Cooperation, Ministry of Education, Thailand [3], referred

to the Office of the Basic Education Commission (OBEC), accept a commission to minister and support basic education for all educational age groupings, stipulate everyone access equal basic education, and provide them education based on moral principles, integrated with the sufficiency economy philosophy, and develop the quality and standards of basic education. Thai education reform must place a focus on learners to ensure equal and inclusive growth among learners from outreach villages who faced limitations in accessing quality education in comparison to their urban, ethnically diverse places, the majority of whom were rural. In accordance with the United Nations [4], it would be guaranteed that everyone finished nine years of compulsory education without paying fees by 2030. Moreover, it should be an equitable and quality basic education leading to relevant and desired learning outcomes.

As a matter of fact, the main issue that Thais face is educational inequality throughout the country. The gap in the economic level among Thais is causing widespread inequality. The needs and problems are still not actively addressed to ensure quality education for all. For example, the isolated small schools remaining to be supported the budgets, re-organized the school network for the remote schools, and offered

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training and greater incentives to attract quality teachers since students desired outcomes can be enhanced by improving teacher and school evaluations, etc.

In compulsory educational quality management, it was required to have the same educational administration with a fully integrated system as other institutions. There should be independent management based on the context of the educational institutions and learners' aptitude. The Ministerial Regulation on Educational Quality Assurance B.E. 2561 (2018) [5] stipulates that educational institutions shall provide internal quality assurance systems by setting educational standards. Likewise, National Educational Standards B.E. 2561 (2018) [6] mentioned that the desired outcomes were required by the National Education Administration, which was the attributes of the learners at all levels of educational administration from early childhood education, basic education, vocational education, to higher education. Nevertheless, educational institutions are free to adhere to the philosophies, principles, and visions of educational management, and to correspond to education which consisted of a learner as an innovative co-creator and an active citizen.

As a faculty member in charge of educating educational administrators, therefore, the researcher has recognized the need to conduct research on a quality development model for compulsory education focused on desired outcomes of learning. This refers to measurable achievements concerning what students should know, be able to do, and value as a result of integrating knowledge, skills, and attitudes into learning throughout the curriculum based on equal and inclusive growth. Moreover, it will create opportunities for all relevant parties to develop educational quality in educational institutions that provide compulsory education and other levels.

## 2. 2. Research Questions

2.1 What is the concept of compulsory educational quality with a focus on the desired outcomes of learning based on equal and inclusive growth?

2.2 What are the needs and problems in the development of compulsory educational quality with a focus on desired outcomes of learning based on equal and inclusive growth?

2.3 What is the quality development model of compulsory education with a focus on desired outcomes of learning based on equal and inclusive growth?

2.4 What are the verified results of the model and a user manual for developing compulsory educational quality with a focus on desired outcomes of learning based on equal and inclusive growth?

## 3. 3. Research Objectives

3.1 To investigate the concept of compulsory educational quality with a focus on desired outcomes of learning based on equal and inclusive growth.

3.2 To examine the needs, problems, and guidelines for the development of compulsory educational quality with a focus on desired outcomes of learning based on equal and inclusive growth.

3.3 To develop a quality development model of compulsory education with a focus on desired outcomes of learning based on equal and inclusive growth.

3.4 To verify the model and a user manual for developing compulsory educational quality with a focus on desired outcomes of learning based on equal and inclusive growth.

## 4. Materials and Methods

The research process was divided into four phases as follows:

Phase 1: The investigation of the concept of compulsory educational quality with a focus on desired outcomes of learning based on equal and inclusive growth was divided into two steps: 1) the study of concepts, theories, compulsory educational quality development, and internal quality assurance both domestically and internationally, and 2) the model verification by seven experts selected by purposive sampling. Instruments used to collect the data were conceptual synthesis, discussion issues, and conceptual verification form. The data was statistically analyzed by percentage, frequency, mean, and standard deviation.

Phase 2: Regarding the examination of needs and problems for the development of compulsory educational quality, the respondents were educational institution administrators, acting administrators, or teachers from 364 schools selected by multi-stage random sampling. A questionnaire was used as an instrument. The data were statistically analyzed by percentage, frequency, mean, and standard deviation.

Phase 3: In the investigation, guideline identification, and development of a model and a user manual for compulsory education quality, data sources were from the results of Phase 1 and Phase 2. The key informants, selected by purposive sampling, consisted of 21 school administrators, acting administrators, or deputy directors responsible for academic administration, and teachers from 21 schools with best practice awards, as well as 15 experts participating in an educational workshop. The data were analyzed using content analysis and inductive summarizing.

Phase 4: Regarding the verification of the model and a user manual, key informants were 15 experts in educational quality development and educational administration at various levels, selected by purposive sampling. They attended connoisseurship. The tool used was a form for verifying the model appropriateness and possibility. Content analysis and inductive summarizing were used to analyze the data.

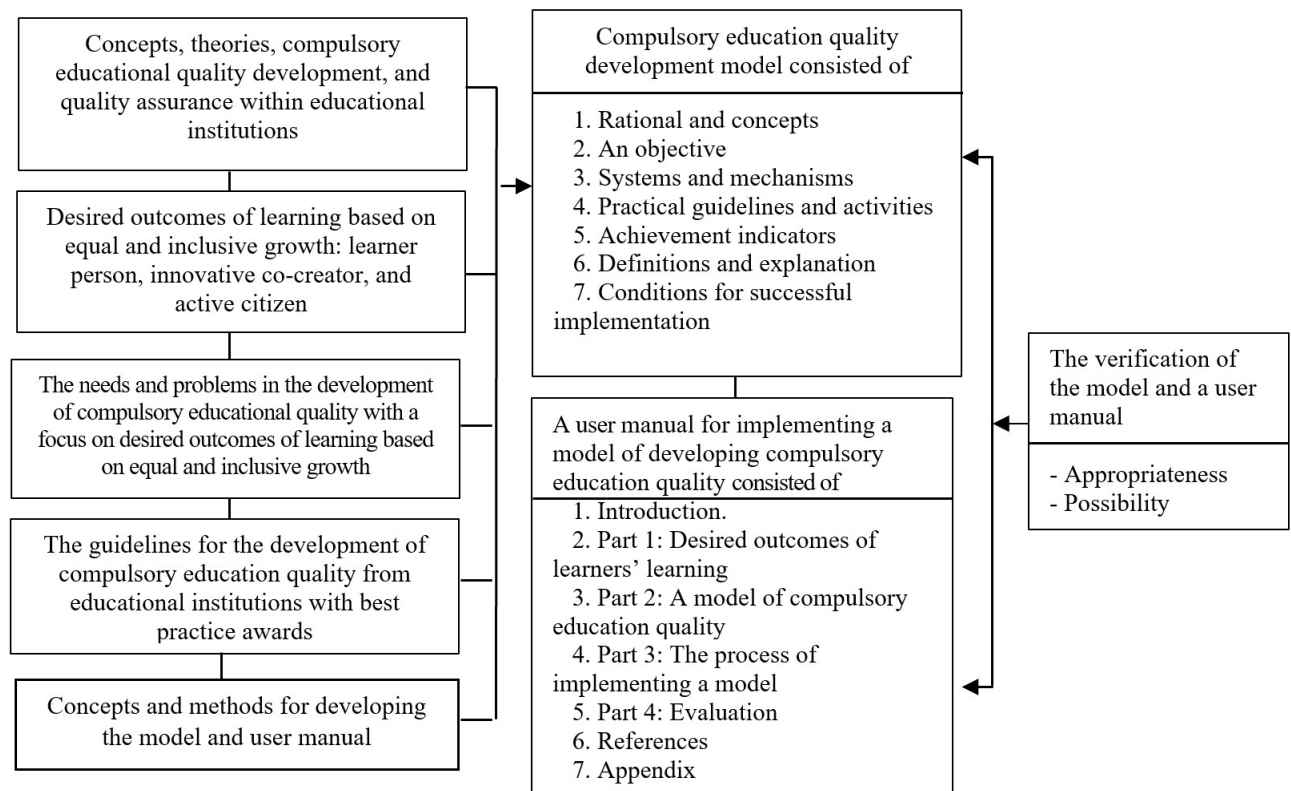


Figure 1: Research framework

## 5. Results and Discussion

1. The concept of developing compulsory educational quality with a focus on desired outcomes of learning based on equal and thorough growth were divided into 2 levels: both primary and lower secondary levels. There are 5 major concepts, namely, 1) learner persons, 2) innovative co-creators, 3) active citizens, 4) shared values, and 5) virtues, which comprise 17 minor concepts from primary level and 23 minor concepts from the lower secondary level, with the highest level of confirmation results passing the set criteria of 3.51 or higher. Likewise, the National Educational Standards B.E. 2561 (2018) [6] mentioned the required outcomes, which were the desired attributes of the learners from early childhood education, basic education, vocational education, and higher education. Nevertheless, educational institutions were free to adhere to the philosophies, principles, and visions of educational management and to correspond to education standards, which consisted of a learner person, an innovative co-creator, and an active citizen.

Moreover, UNESCO's framework on the factors of education quality comprises five dimensions: 1) learner attributes, e.g., student capacity, diligence, school preparedness, background knowledge, learning obstacles, and demographic factors; 2) contextual influences, including educational resources from the government, family support, national standards, labor market pressures, socio-cultural and religious consid-

erations, and the amount of time available for school and homework; 3) enabling contributions, e.g., teaching and learning resources, infrastructure and facilities, and human resources; 4) instruction, including learning duration, instructional strategies, evaluation, and class size; and 5) outcomes comprised of morals, life skills, literacy, and coding skills. [7]

2. The needs and problems in developing compulsory educational quality were as follows:

2.1 The needs for the development of compulsory educational quality with a focus on desired outcomes of learning based on equal and inclusive growth were overall at a high level. The plan implementation was at the highest level, and the plan preparation was at the lowest, focusing on quality development according to the standards.

2.2 Problems in the development of compulsory educational quality with a focus on desired outcomes of learning based on equal and inclusive growth consisted of six aspects as follows: 1) There was quite small number of study and analysis of laws, national strategies, master plans, subordinate plans, the national education development plan, policy, focus, and goals of their affiliate agencies from the education service area level or higher. 2) There were unclear strategies, policies, and operations, especially on the equal and inclusive growth so it was not able to implement. 3) The school administrators, teachers, and educational personnel had a few operations for creating a quality culture in educational institutes. 4)

The internal educational quality assessment plan was unclear. 5) The supervision and follow-up were discontinuous. 6) Those responsible teams for preparing SAR were inconsistent or incoordinate with those responsible teams for the development of educational quality standards with a focus on learning outcomes.

2.3 The guidelines for the development of compulsory educational quality with a focus on desired outcomes of learning based on equal and inclusive growth consisted of 1) participatory strategic educational management emphasizing career skills, work skills, and life skills; 2) the learning management process which integrates the philosophy of sufficiency economy and active learning through a 4-step Q-P-A-R process; and 3) quality education management according to educational standards based on PLC and PDCA processes.

Similarly, Organization for Economic Co-operation and Development (OECD) [8] analyzed each component of the interaction and the framework to perceive a number of policy dimensions. The results consisted of educational quality outcomes, educational opportunities, educational equal outcomes, educational equal opportunities, sufficiency, including effective and efficient educational resources for investment in education, and the relevance of education policy factors to develop educational outcomes.

Liu, Yao, Zhou [9] revealed that regarding China's education practice, studies on outcome-oriented evaluation are still insufficient; therefore, compulsory education school standardization was taken to construct a model. The remaining studies majorly emphasize the description of standards, principles of construction, methods, and issues, as well as necessity and possibility.

3. A model for developing compulsory educational quality with a focus on desired outcomes of learning based on equal and inclusive growth was named DOLEIG-EQD Model. It consisted of seven components. 1) in terms of the needs for the development of compulsory educational quality focused on desired outcomes of learning based on equal and inclusive growth in terms of plan implementation. 2) in terms of problems consisting of studying and analyzing laws, national strategies, master plans, and subordinate plans, the national education development plan, policy, focus, and goals of their affiliate agencies from the level of the education service area or higher; unclear strategy, policy, and operations, especially on the equal and inclusive growth so it was not able to implement; and the school administrators, teachers, and educational personnel had a few operations for creating a quality culture in educational institutes; the internal educational quality assessment plan was unclear; the supervision and follow-up were discontinuous, and those appointed responsible teams for preparing SAR were inconsistent or incoordinate with those responsible teams for the quality development of ed-

ucational standards focused on learners' learning outcomes, and 3) in terms of the guidelines for the development of compulsory educational quality focused on desired outcomes of learning based on equal and inclusive growth consisting of 3.1) participatory strategic educational institution management emphasizing career skills, work skills, and life skills; 3.2) earning management process integrates the philosophy of sufficiency economy and active learning through a 4-step Q-P-A-R process; and 3.3) quality education management according to educational standards based on PLC and PDCA processes. All aspects were synthesized to construct a model. The model was named "LIASM-Model" consisted of 7 components as shown in Figure 2:

According to the model, it can be explained as follows:

3.1 Principles and concepts consisted of 1) systematic administrative mechanism (I-P-O-F), 2) internal educational quality assurance, a new concept with integrated cross-disciplinary quality management cycle (PDCAA), 3) transdisciplinary, 4) flexibility and diversity, 5) participation, strong teams, 6) use of data-based and information communication technology (ICT), 7) continuously improvement, before and after reflection (BAR-AAR), innovation development based on cutting differential of students based on the student support system in all dimensions according to the genius and potential of each learner and the area-based context of school and community context.

3.2 An objective was to apply as a guideline for compulsory educational quality with a focus on desired outcomes of learning based on equal and inclusive growth for primary and lower secondary education.

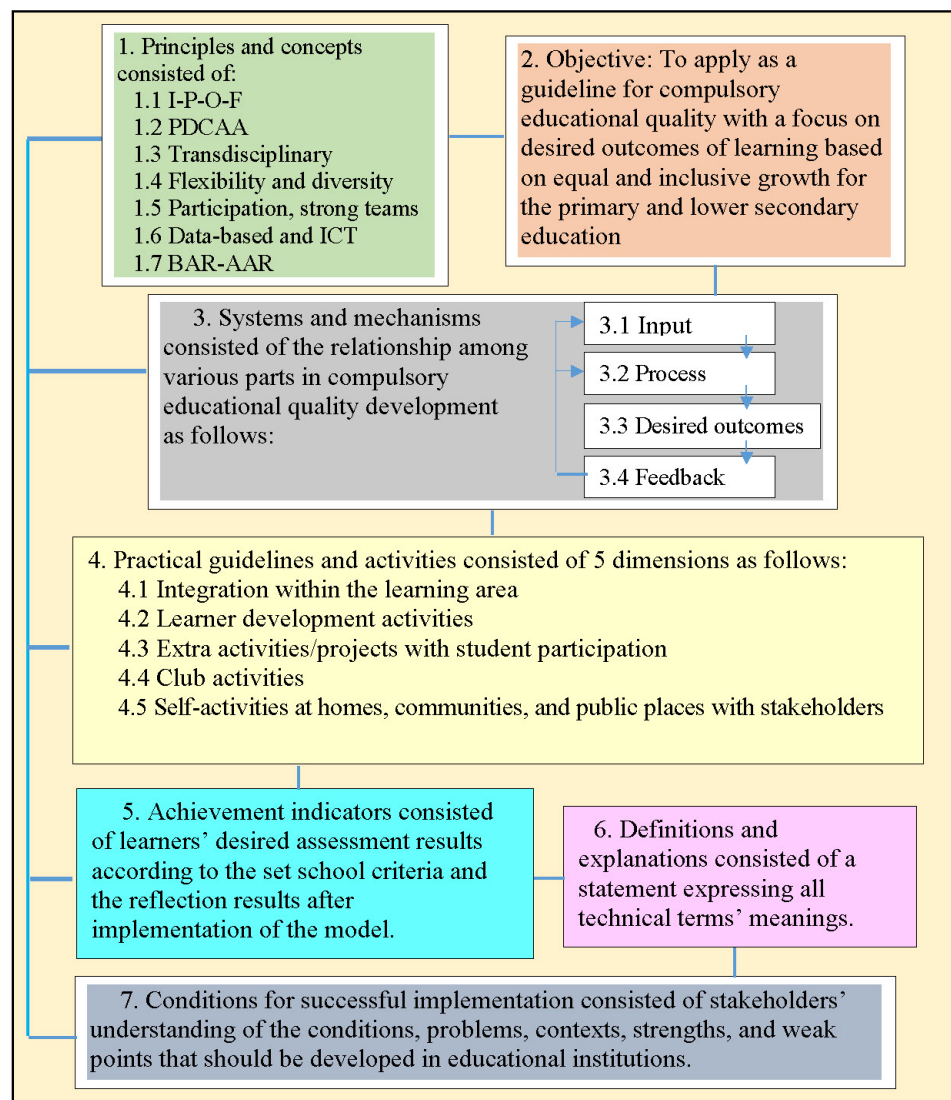
3.3 Systems and mechanisms consisted of the relationship among various parts of the compulsory educational quality development as follows:

1) Input refers to the resources supporting the process, i.e., a quality curriculum focused on outcomes, quality school administrators, quality teachers, learning media, and equal budget for local learners, as well as parents' participation in the development network.

2) Process refers to the procedures of studying the major and minor conceptual frameworks, descriptions, and indicators in all five areas, as well as studying the development guidelines; and constructing instruments to develop and assess learner quality by integrating the five dimensions.

3) Desired outcomes refer to three learners' characteristics according to the National Education Standard Act 2018 as follows: 3.1) learner persons, 3.2) innovative co-creators; and 3.3) active citizens based on morals and sharing values. 3.4) Feedback refers to the information systems and self-assessment reports that meet the determined educational standards according to actual and reliable conditions.

3.4 Practical guidelines and activities consisted of



**Figure 2:** LIASM-Model, a complete model of compulsory education quality development with a focus on the desired outcomes of learning based on equal and inclusive growth.

five dimensions at each level as follows: 1) integration within the learning area; 2) learner development activities; 3) extra activities/projects with student participation; 4) club activities; 5) self-activities at homes, communities, and public places with stakeholders.

3.5 Achievement indicators consisted of 1) learners' desired assessment results according to the school criteria set and 2) reflection results after implementation of the model.

3.6 Definitions and explanations consisted of a statement expressing all technical terms' meanings.

3.7 Conditions for successful implementation consisted of stakeholders' understanding of conditions, problems, contexts, strengths, and weak points that should be developed in educational institutions.

A user manual for implementing a model of compulsory education quality consisted of 1) An introduction to implementing a model, 2) Part 1: Desired outcomes of learners' learning, 3) Part 2: A model of compulsory education quality, 4) Part 3: The process of implementing a model consisted of four steps: preparation, implementation, reporting, and improving, 5) Part 4: Evaluation of implementing a model by the indicators of success, 6) References, and 7) Appendix.

Similar to the findings of Phumpongkhochasorn, Chotientip, Wirat Maneephruet, Nampaponangkul [10], the development of educational quality model and standards according to a new quality assurance framework was established to develop the educational quality and standards by focusing on desired outcomes through research, innovation, academic services, administration, and quality management.

Correspondingly, Pongkaew Puthaprasert [11] revealed that the developing results of the model of work-integrated learning to prepare educational administrators were named "POSO (rca) CDEM" model. It consisted of 8 elements as follows: 1. principles, 2. objectives, 3. a system, 4. operational methods with requirement analysis, combination, and assessment, 5. conditions for achievements, 6. definitions, 7. evaluation, and 8. manual.

In addition, Mitchell [12] indicated that five key components of the development model, appreciation, and usage were as follows: 1) the definition and requirements of the model, 2) the design of the model, 3) the mode of data management, 4) the results from analysis, and 5) continuous feedback and improvement.

4. The verifying results of correctness, appropriateness, feasibility, and utility of the model and manual for developing compulsory educational quality with a focus on desired outcomes of learning based on equal and inclusive growth were overall at the highest level and passed the set criteria of 3.51 or higher.

In line with Phonprasert, Phruithikul, Teacha [13], it was found that the results of the assessment of the educational quality development of small-sized model

schools in the lower northern region showed that the overall feasibility and the utility were at a high level. The results of using the educational quality development system and the manuals demonstrated that the overall utility was at a high level and the preparation of the manuals was correct and suitable at the highest level.

## 6. Conclusions

From the results of the study, it was found that the quality development model for compulsory education with a focus on desired outcomes of learning based on equal and inclusive growth can be practically applied to the quality development of compulsory education and internal quality assurance in educational institutions. However, this depends on the context and potential of learners, as well as school administrators, teachers, and related personnel.

## 7. Recommendations

Recommendations for applying the research results are as follows:

1. The educational institutions should designate responsible persons, workloads, activities, tasks, and projects according to the management structure; prepare a calendar of operations; plan, follow-up, monitor, and evaluate the performance, including providing clear documents, evidence, and informing all parties to participate in the process at the start of the annual action plan.

2. The educational institutions should set up a working group to conduct an analytical study related to education and educational institutions, especially the sub-plans of the national strategy and the national education development plan and related issues to be used in determining the standards and target values of educational institutions.

## 8. Recommendations for further research

1. There should be research on the quality development model with a focus on desired outcomes of learning based on equal and inclusive growth at other educational levels, e.g., early childhood, upper secondary, higher education, vocational education, or non-formal and informal education.

2. There should be research on the quality development model with a focus on desired outcomes of learners in each level of education to support their uniqueness, for example, vocational students or students with unique characteristics. Acknowledgment

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