SEAMEO RECSAM-University of Tsukuba Joint Seminar: Searching for Quality Mathematics Curriculum Framework on the Era of Globalization
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The Reform of Curriculum and Instruction System

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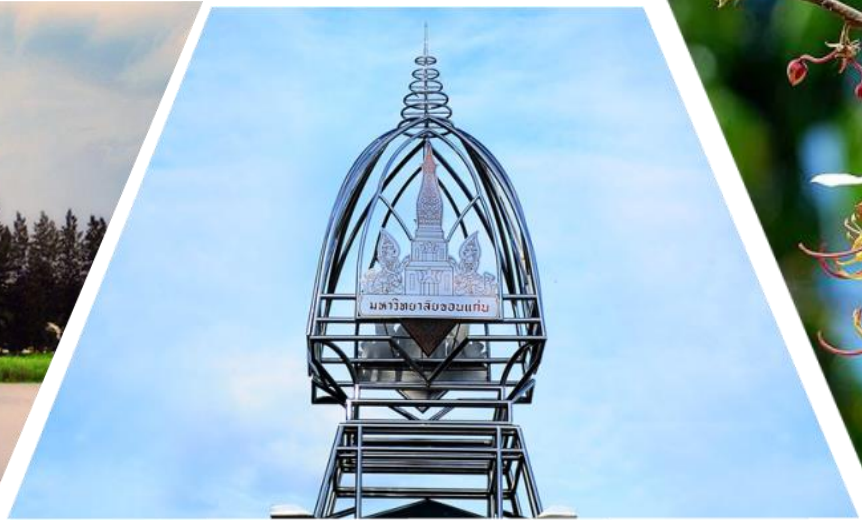

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Today Topics

Problem about Curriculum and Instruction

How to solve these problem?

Analysis of the Curriculum and Instruction Systems of Different Countries

Concluding Remarks

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“Curriculum”

“Instruction”

How we say it?

Curriculum and Instruction

How we use it in educational practice?

Curriculum

Instruction

Curriculum

Instruction

Curriculum

Instruction

How to systematize these ideas in education?

The term "**Curriculum** and **Instruction**" is so widely used in the field of education that these two words have become almost **inseparable**. However, in educational practices these two entities are separated.

What is the relation of Curriculum and Instruction?

It may be that this **misunderstanding** stems from the meaning of each word as curriculum relates to content, the **“what”**, whereas instruction defines method, the **“how”**

The Problems about Curriculum and Instruction in Thailand are…

1.The curriculum development was intervened and lack of continuity

During the decade, the curriculum development was intervened by politics and often changed, which cause the effect to the textbook, the professional development, budget and weak of quality of students. Because of each change often hastily implemented policies, lack of research and data. **So, it will cause the loss of education, which affects the overall quality of the nation's youth** (Nutravong, 2015).

2. Lack of connection during the curriculums

Now, there is lack of coherence in the curriculum in each level. For example the curriculum for childhood, primary, secondary and higher education are incoherence and do not have the planning system. In the childhood, it focuses on learning through observation and evaluation of the behavior of the students as well. But in the primary school curriculum will be measured and evaluated in 8 learning issues. There are very differences and no point for connecting and prepare for children adequately (Nutravong, 2015).

3. The influence of testing in guiding teaching

In the present, the national test O-NET to be used as part of graduation and admission to each student**. It is the cause of the instruction for the examination which curriculum is emphasized to practice and assessment on the actual condition occurs.** But the O-NET is measured by using a Multiple Choice exam, then the exam O-NET affect further study. Thus causing the problem of tutorials to get a higher score more than learning to know the truth, analytical thinking, the action and activities to develop the learners 'characteristic as defined in the curriculum (Nutravong, 2015).

4. Lack of measures to control and monitor curriculum quality/special programs of school

In the present, there are many school especially in large schools have opened special courses (EP, IP, Gifted etc.) charging high fees. The curriculum consideration and management within the school without organization or department of education to controls, to nationalize quality and explicitly implementation **and cause the learners with poor economic status are less opportunity to attend to large school of government sector** (Nutravong, 2015).

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How to solve these problems?

Normally, the curriculum is frequent changed and the unreasonable desire to expect short-term results.

Thus, the problem of how to effectively implementing curriculum needs to be addressed.

1) Lack of perspective regarding the "Paradigm Shift from Products to Product – Process Approaches"

This is still a problem in many countries, including Thailand, and this issue cascades into the other points. **The obvious example is that most of the work being done on curriculum development nowadays focuses only on the curriculum document, without any regard to the process.** In other words, the focus remains on product, and process continues to be ignored.

2) Lack of understanding about "The relation between curriculum and instruction"

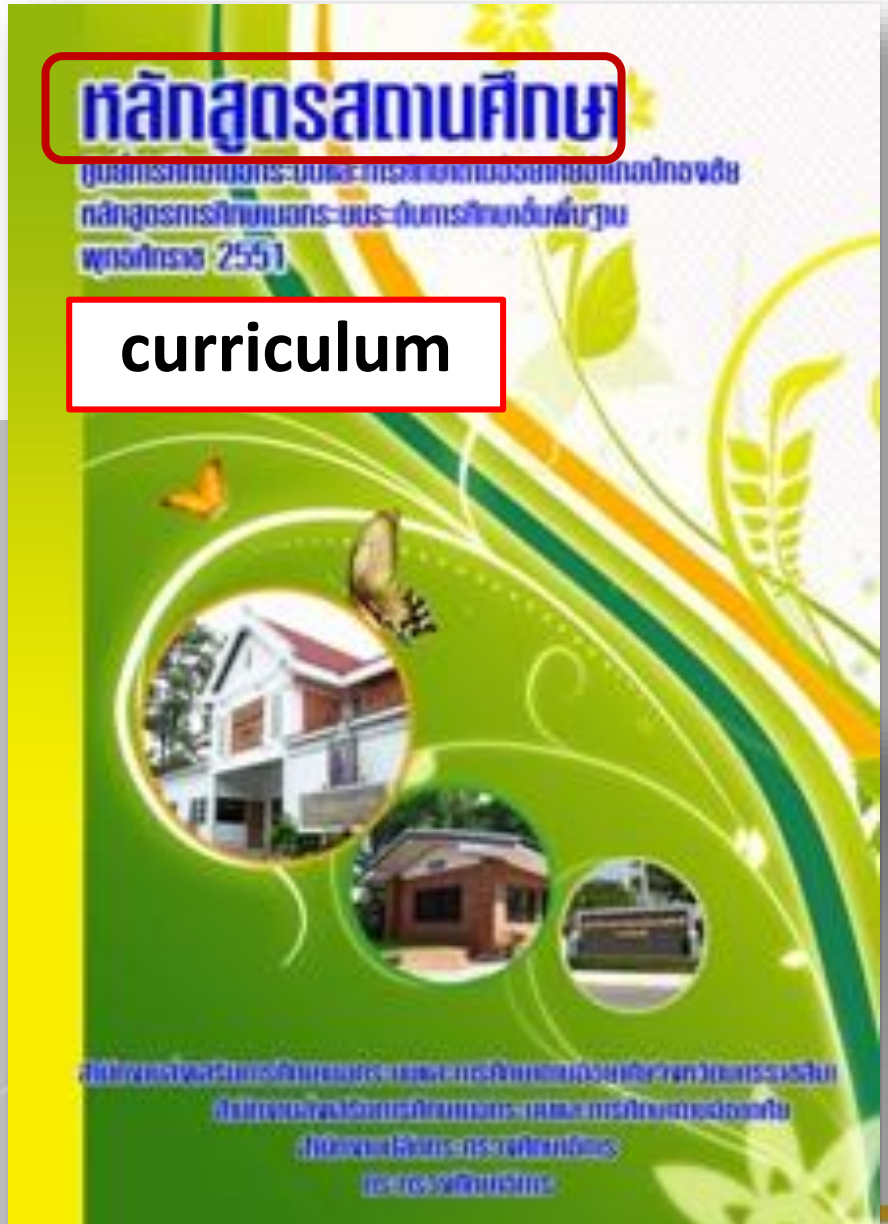
Most teachers suffer from the common misconception that curriculum and instruction are separate entities rather than a system.

The example of misunderstanding about “The relation between curriculum and instruction”

curriculum

curriculum

curriculum



Content of the Core Curriculum for Basic Education (2008)

สารบัญ

Content of the School-based Curriculum

Introduction

Vision

Student's competency

Content of the Core Curriculum for Basic Education (2008).

Introduction

Vision

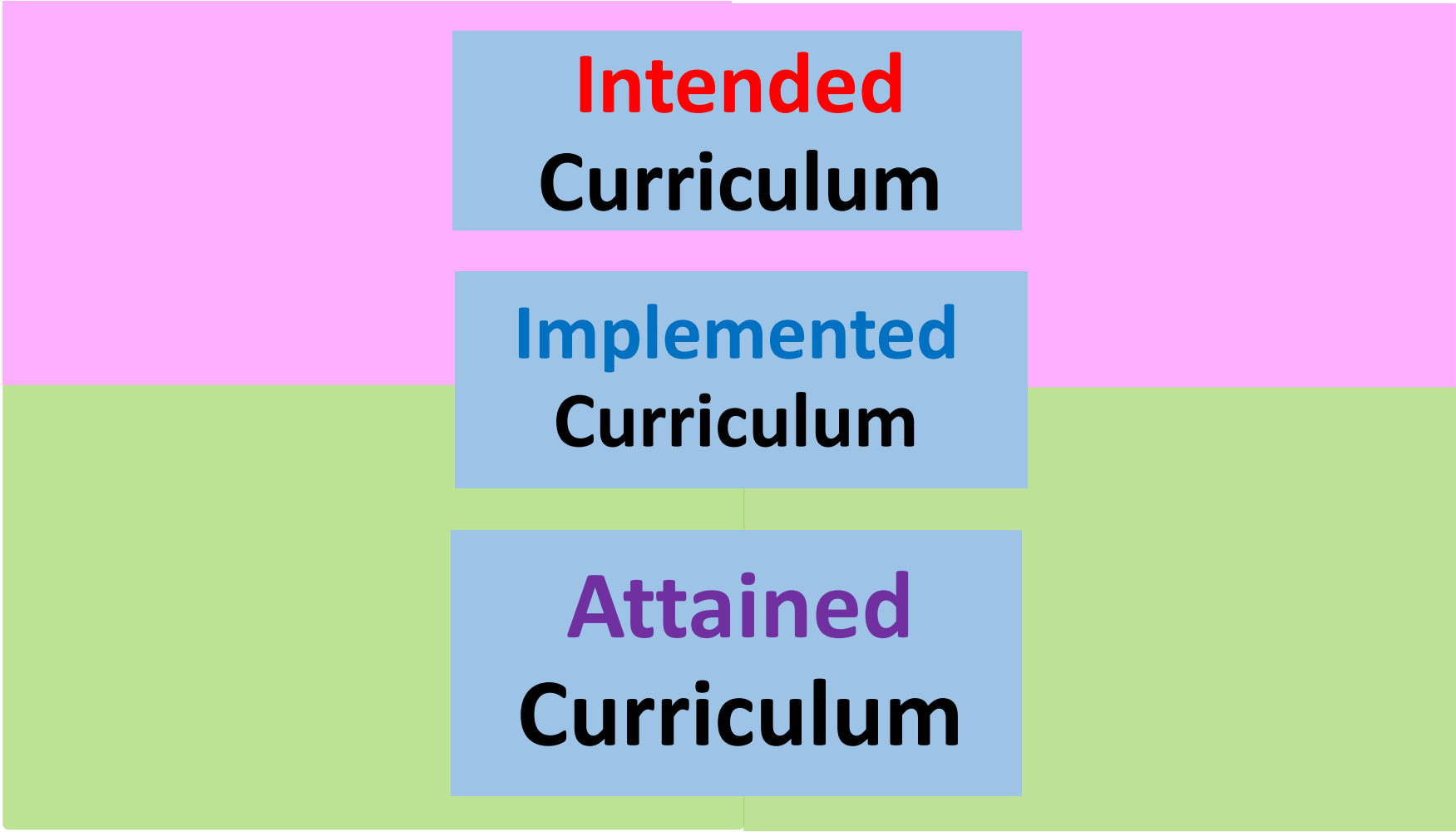
Student's competency

Content of the school-based Curriculum

3) Lack of Understanding regarding the integration of curriculum and instruction as a system

Today in Thailand, the understanding is that curriculum and instruction are separated from each other rather than two elements of a functioning system. This lack of understanding about curriculum and instruction **as a developmental process** can be seen in the field of curriculum and instruction in Thailand where the word instruction is excluded from the content.

The levels of curriculum as the basic elements to build up the curriculum and instruction system.



Kilpatrick, J. (2009). The mathematics teacher and curriculum change. PNA, 3(3), 107- 121

4) Misunderstanding of the "Research and Development Cycle" of Curriculum and Instruction

Using the hypothetical model, previously mentioned, to analyze a curriculum application in many countries, including Thailand, which are currently restricted to a **top-down approach** will not lead to a research and development cycle.

Problem in Traditional Approach

Using the hypothetical model only Top-Down Approach

Intended Curriculum

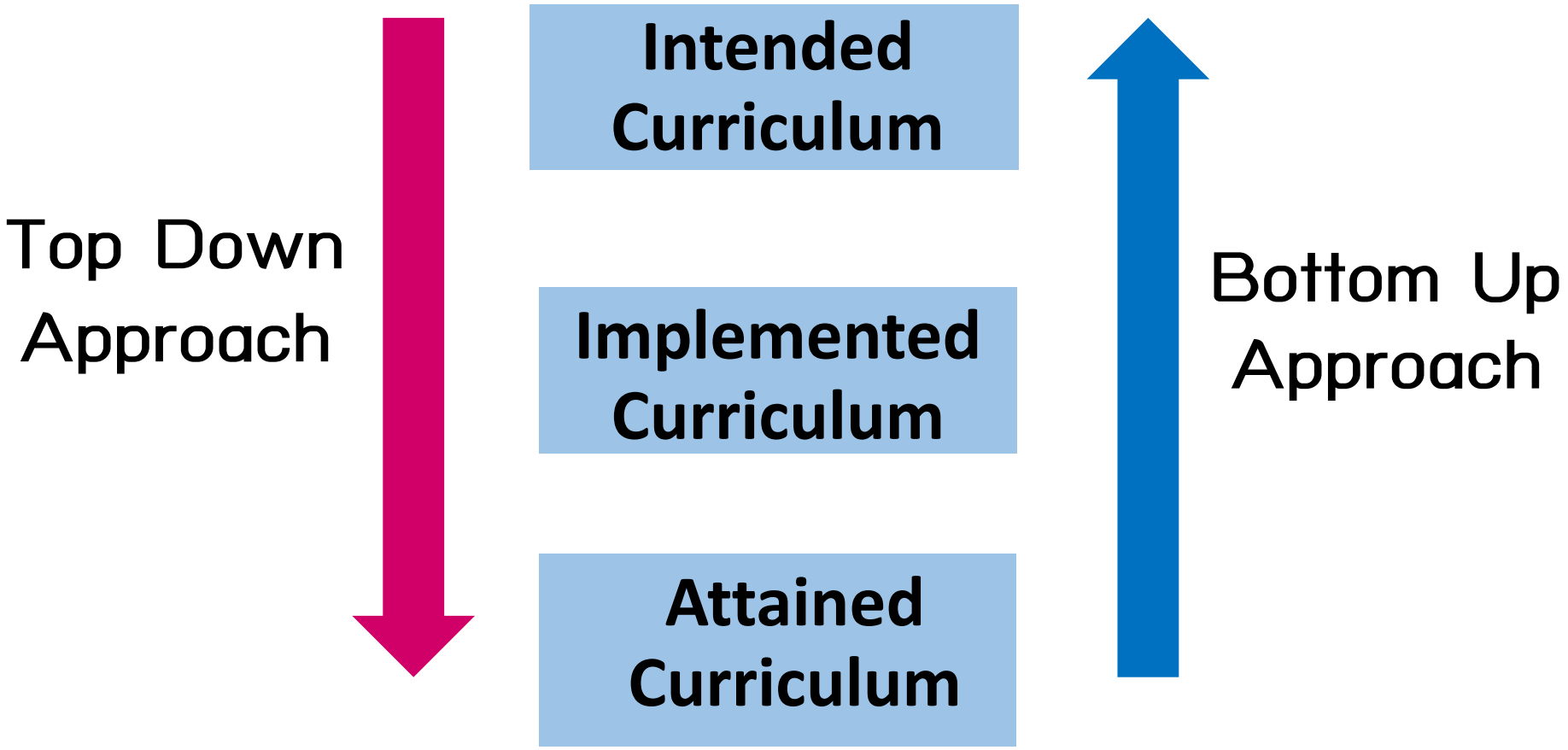
Implemented Curriculum

Attained Curriculum

4) Misunderstanding of the "Research and Development Cycle" of Curriculum and Instruction

1. In order to achieve that goal there also **needs to have feedback information** that results from a **bottom-up approach**. Therefore, it can be seen that both **the top-down and bottom-up approaches are needed to complete the cycle of feedback, improvement and implementation**.

New Approach:
Top-down and Bottom-up approaches



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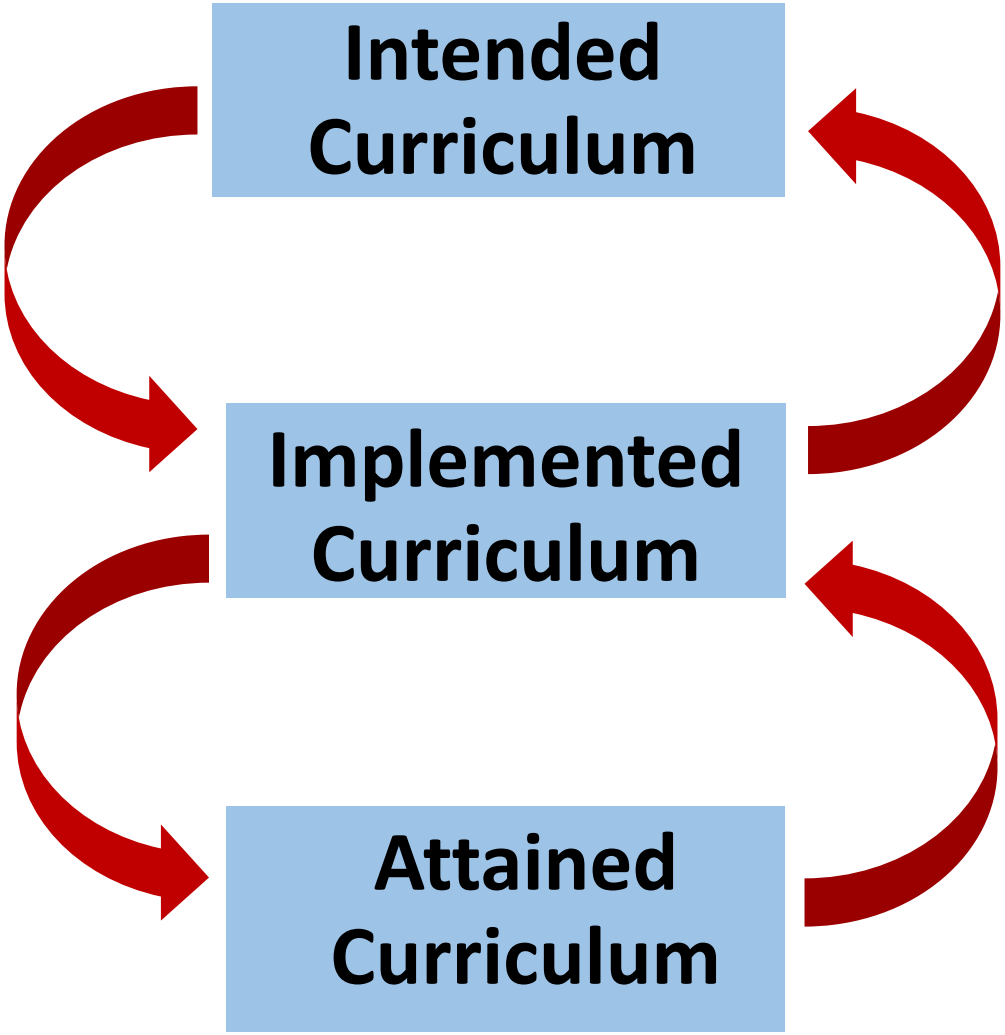
The integration of Top-Down and Bottom up Approaches for "Research and Development Cycle"



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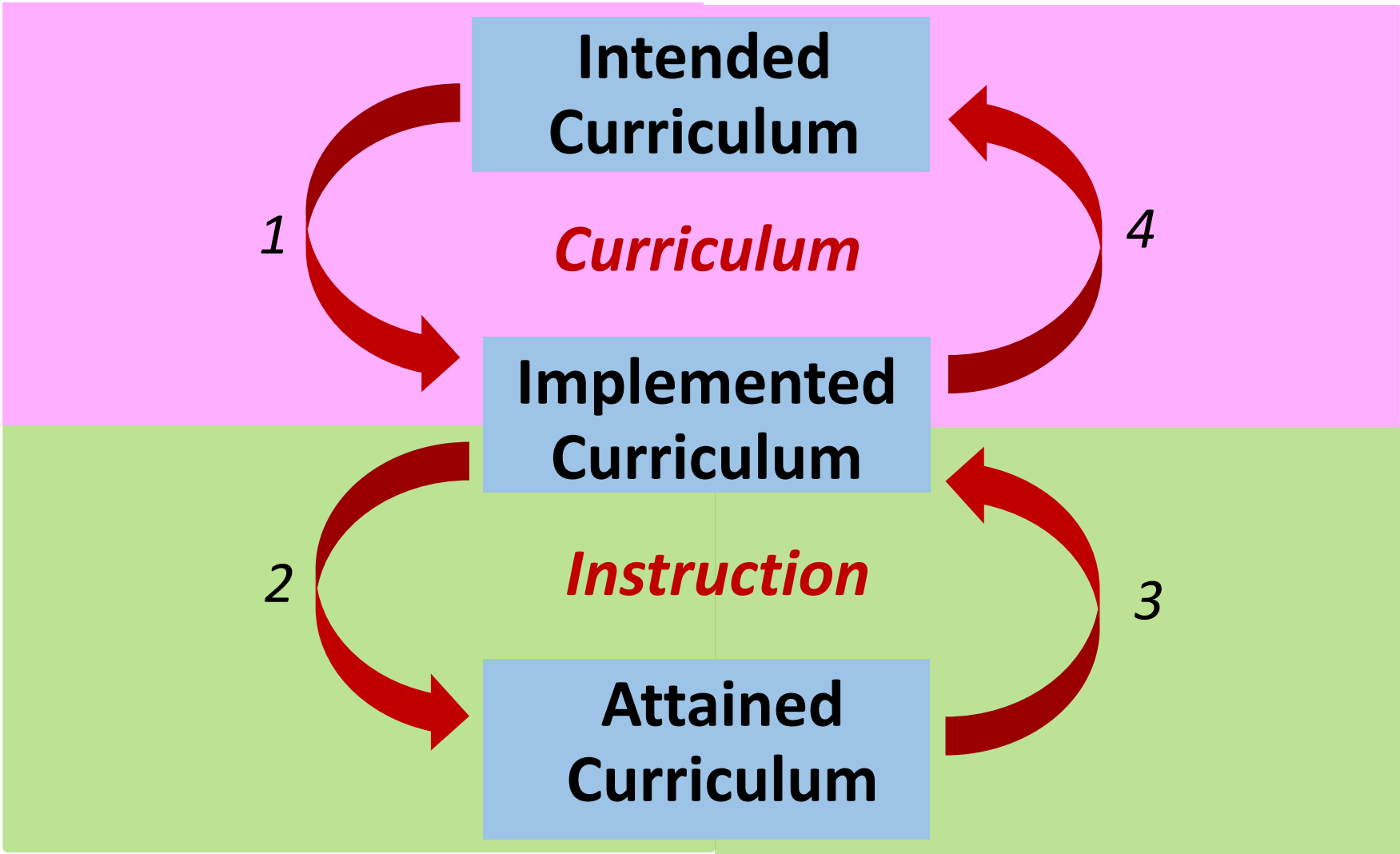
The Model of Curriculum and Instruction System



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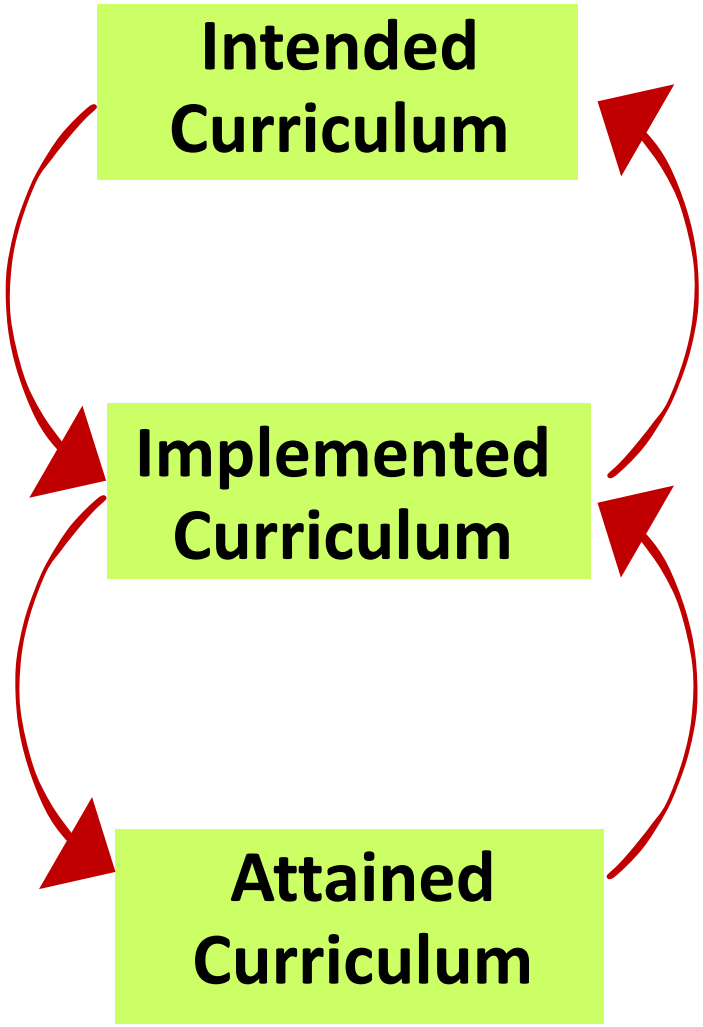
The Model of Curriculum and Instruction System of South Korea (each cycle taking 7 years)

1) Korea's Ministry of Education, Science and Technology, 2) The Korea Institute for Curriculum and Evaluation, 3) Commercial or private publisher

improvement of teaching and learning methods, development and authorization of textbooks and the implementation of national-level educational tests" Close collaborative ties have been formed between the Korea Institute for Curriculum and Evaluation and government, academic circles, and teachers and students through public meetings and seminars.

1)College of education
2)Universities of education
3) Teacher training center

The college of education has a designated purpose of training secondary school teachers. Upon graduating from it, students are awarded with grade 2 teacher certificate.



Korea Institute for Curriculum and Evaluation (KICE)

To conducts research on the assessment standards and quality control systems of textbooks, authorization and approval of textbooks submitted by publishing companies and basic research for the improvement of textbook systems and structures. To conducts the planning, developing, printing and scoring of national-level tests in a fair and systematic manner.

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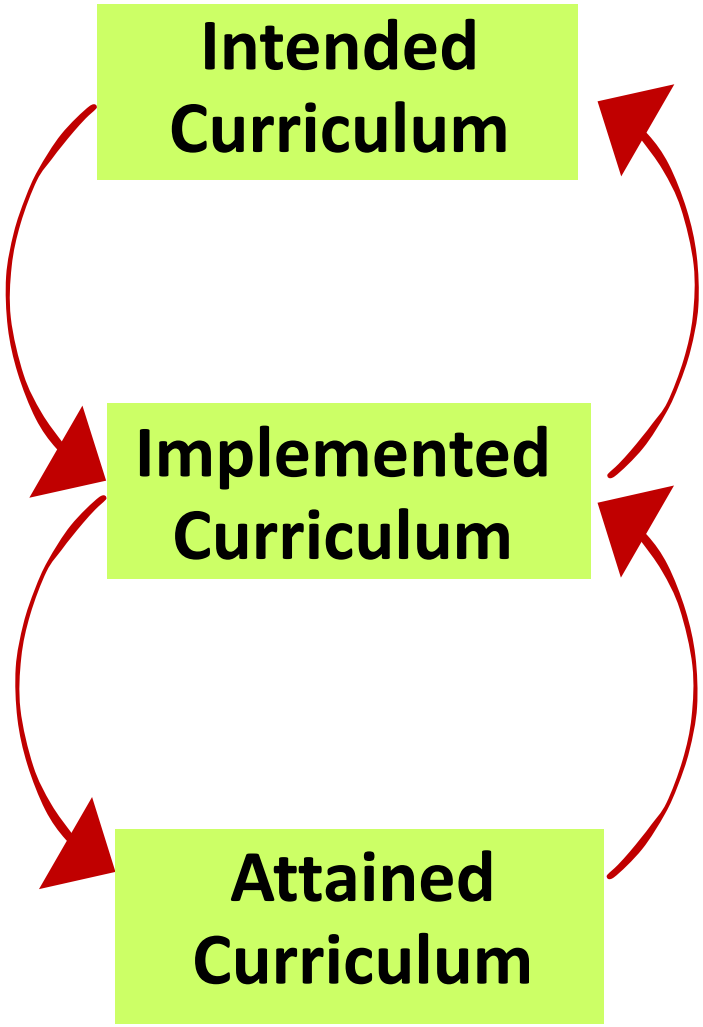
The Model of Curriculum and Instruction System of Japan (Each cycle taking **10 years**)

1) Ministry of Education, Culture, Sports, Science and Technology (MEXT), 2) Commercial or private publisher

The quality of Japanese education to the quality of the Japanese curriculum, set by the Japanese Ministry of Education, Culture, Sports, Science and Technology (MEXT), advised by the Central Council for Education.

(1) Universities, Junior Colleges , Colleges of Technology
(2) Specialized Training Colleges
(3) Miscellaneous Schools
(4) Teacher training center

(1) intended to conduct teaching and research in depth in specialized academic disciplines and provide students with advanced knowledge. Junior Colleges aim at conducting teaching and research in specialized subjects and at developing in students such abilities as are required for vocational or practical life. (2) may be classified into three categories: upper secondary, postsecondary and general courses. (3)provide people with vocational and practical training



National Institute for Educational Policy Research(NIER)

NIER started out as the National Institute for Educational Research in June 1949 and conducted basic and practical research surveys concerning education. List of Basic Research To Plan and Design Educational Policies about Basic collaborative research with researchers of all nationalities.

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NIER started out as the National Institute for Educational Research in June 1949 and conducted basic and practical research surveys concerning education. List of Basic Research To Plan and Design Educational Policies about PISA, which we are taking part in as the Japanese representative, research conducted by the IEA, and TIMSS.

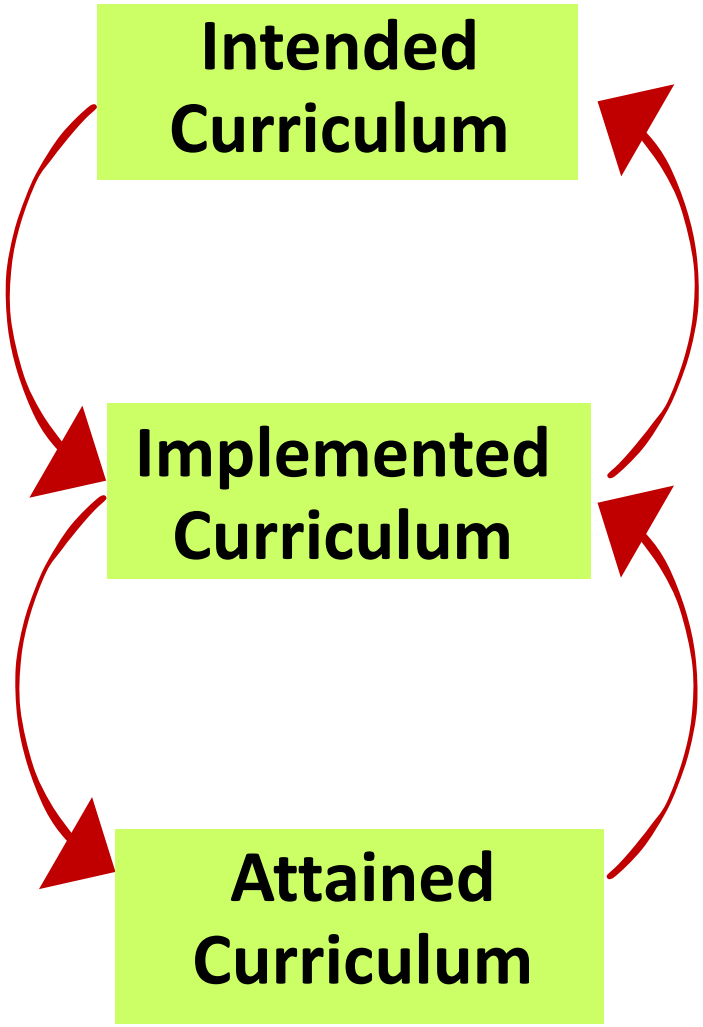
The Model of Curriculum and Instruction System of Singapore

The Singapore Ministry of Education (MOE)

has a great deal of control over how the curriculum is implemented. As it promoted a shift from instruction based on teacher lectures and student memorization to one that emphasizes student engagement and creativity, ministry officials met regularly with school leaders and developed an extensive series of professional development opportunities for teachers as they rolled out the new system.

National Institute of Education (NIE)

National Institute of Education (NIE), is an autonomous institute of Nanyang Technological University (NTU) in Singapore. Ranked 13th in the world and 2nd in Asia by the QS World University Rankings in the subject of Education in 2013, the institute is the sole teacher education institute for teachers in Singapore. NIE provides all levels of teacher education, ranging from initial teacher preparation, to graduate and in-service programmes, and courses for serving teachers, department heads, vice-principals and principals. Its enrolment stands at more than 5,600 full-time equivalent students.



National Institute of Education (NIE)

Aim to provide insights that may be translated into inputs for policy making and beneficial practices on the ground through our research and publications in policy and leadership. To conduct research in policy and leadership that aimed to provide insights that may be translated into inputs for policy making and beneficial practices on the ground through our research and publications in policy and leadership

Singapore Examinations and Assessment Board (SEAB)

SEAB, formerly the Examinations Division of MOE, was formed to develop and conduct national examinations in Singapore, and to provide other examination and assessment services and products, locally as well as overseas.

The main problem of curriculum and instruction system in Thailand

The main problem of curriculum and instruction system in Thailand

1. Without consideration on the importance of the **“gap”** between each level of the curriculum.
2. "Research and development activities" in order to close the gap are not clear.
3. The institute was responsible for research and development activities in order to close the gap are not clear.

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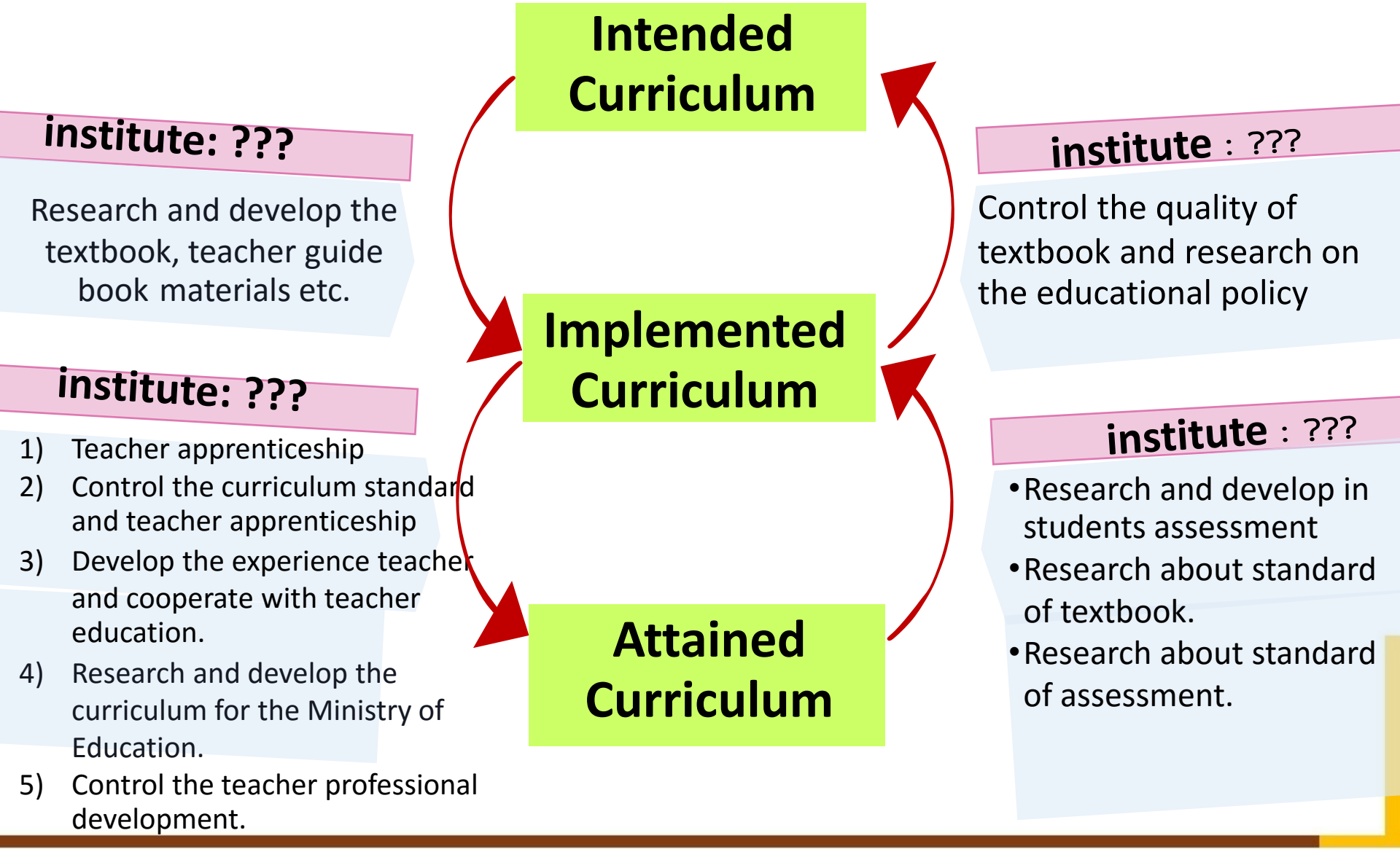

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พิพิธภัณฑ์วรมหาวิหาร
โซนถนนเนรมิตธารา
คุ้มสิฐาน
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พาธศิลป์สถาน
หอศิลป์วิถีมนธรรม
เวทีรีมบึงสิฐาน
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