

## Abstract

# Research on Improvement Measures of Primary·Secondary Education System —Focused on Education Contents, Methods, and Evaluation Systems—

Mi-kyung Chung

Seung-Sil Yang

Kyungae Kim

Jungmin Kim

Josh Sung-Chang Ryoo

Hyun Ah Ahn

This study was conducted to seek education contents, methods, and improvement plans of primary and secondary schools, while corresponding with the educational policy vision of ‘fostering creative talents’ that future society demands, so that South Korea’s primary and secondary students can feel happiness through learning experience in schools. In particular, despite efforts to improve education contents, methods, and evaluation systems, respectively, the purpose of such improvements had limitations in reaching classroom lectures. Based on this cause, we have sought measures to strengthen connection between education contents, purposes, and evaluation based on the critical mind that triad interaction had low connectivity.

Hence, we first analyzed current status and problems in education contents, methods, and evaluation system of South Korea’s primary and secondary schools, by dividing the categories to what the education process pursues and its reality, education contents and structure of education methods, and development of education process and operating

system.

To seek for improvement measures on primary and secondary school's education contents, methods, and evaluation systems, diverse research has been conducted and enormous amount of results have been accumulated. However, under the awareness of the problem that in reality, improvement measures that was suggested in individual studies has not been integrated and closely connected, we made meta-analytic approach to the results of education contents, methods, and evaluation related results. Selection standard of subject of analysis has been set to research reports led by the government after 2007. The standard was set considering South Korea's centralized education system where education methods and evaluation related study is conducted once nation's education process is developed. Thus, this study chose researches conducted by the government or government-funded institutes after 2007, when future curriculum debates were initiated. Meanwhile, as there were cases that tried to improve education contents, methods, and evaluation system at a level of school unit and teachers, we have presented cases of improvement by respective elementary, middle, and high schools.

Education reform cases of major countries have also been analyzed in the aspect of education contents, methods, and evaluation connectivity, and improvement procedures. In other words, the cases of OECD, the Province of Quebec in Canada, and New Zealand have been analyzed, which all improved education contents first followed by attempt to reform education system. The cases of ATC21S and the United States where improvement on education evaluation preceded that of education contents have also been analyzed.

With conclusions drawn up by above research, improvement procedures on primary and secondary school's education contents, methods, and evaluation system have been suggested. Firstly, reasoning for establishing improvement plans has been proposed. Secondly, current characteristics of primary and secondary school's education contents, methods, and evaluation sectors and its improvement measures have been suggested. Thirdly, methods to set conditions to effectively implement each improvement measure have been proposed. Lastly, with the goal of fostering creative talents, we have developed a fused form of lecture model, professor study materials, and evaluation materials where everyone participates with one learner in the center. This is based on mathematics

department of middle school year 1, and it can be applied to time during formal education.

Direction of major improvement for each area is as follows.

Education contents should include contents closely related to the learner's life and core capacity, while being optimized to character development, value development, and convergence-type education. For methodology, the learner must be at the focus and should be of the following types: teaching-learning method tailored to learner's various attributes, method tailored to learning objectives, methods with high learner participation like debate learning, cooperation learning, project-based learning, and method where evaluation and learning contents are interlinked. In terms of evaluation, evaluation with procedure in mind, rather than focusing only on results, performance evaluation per level, rather than written multiple choice questions, evaluation that fosters capacity, rather than one that increases knowledge, accomplishment evaluation, rather than subjective evaluation, and evaluation per teacher are preferred.

As a measure to shape conditions to reinforce the relationship of education contents, methodologies, and evaluation systems, we proposed that education reform utilizing backwash effect and consequent curriculum development strategies be established, accomplishment standard (learning objective) be developed while curriculum is being developed, evaluation method that can determine accomplishment of the standard be developed, and backward curriculum planning that selects and organizes related learning experiences and contents be developed. In addition, to strengthen connectivity between school levels, we suggested that developers from all school levels of each subject must be teamed up to develop curriculum, that curriculum revision method must obey the procedures of the general theory, and that timing of curriculum revision be predictable. In teaching-learning environment, we suggested the introduction of no-grade system and credit system be introduced at high school level, curriculum optimization, and reduction of students per teacher and students per class. Regarding evaluation environment, we proposed that evaluation results must act as basic data that directs curriculum revision, that evaluation system be designed from actual issues in schools, that accomplishment evaluation result be reflected in academic records for university entrance, and that instead of scores and grades, teacher's written report be reflected. Lastly, major issues of

improvements in learning contents, methodologies, and evaluation system is closely related to expertise of teachers, so we proposed, to increase teachers' expertise, ways to improve curriculum of teacher training institutions and ways to improve teacher selection and training systems.

Also, to ensure that these reforms can be applied to primary and middle school level education, we proposed tasks for the central government, city/provincial school board, schools, and teachers.

The central government shall (1) establish education reform policy utilizing the backwash effect; (2) create authoritative call centers for curriculum and evaluation; (3) revise Ministry of Education's guidelines to decrease proportion of written test, so as to increase teachers' individual evaluation; (4) make efforts to reduce the number of students per class and per teacher; (5) make plans to support teachers' or schools' voluntary efforts at change and delegate self-regulatory powers; (6) improve and stabilize entrance system for higher levels of education so that it is linked to lower schools' curricula and evaluation systems, and that it contributes to normalization of curricular operation of lower schools; (7) improve teacher's licensing without examination to adjust the criteria of teaching-learning expertise, curriculum restructuring capacity, and evaluation ability to changing primary and middle school environments, and continuously monitor the quality of teacher training institutions so that teacher licensing quality is maintained; and (8) secure financing for establishment of Teaching Evaluation Center for National New Teachers' Training Institute (tentative name) and Teaching Ability Certificate System.

At city and provincial school board level, (1) develop and distribute a common set of criteria for performance evaluation per subject, (2) devise measures to support revitalization of learning community of teachers, and (3) conduct adequate level of teacher training before implementing a policy.

Schools shall (1) improve teacher work organization to secure time for teaching expertise buildup and teaching-learning concentration for teachers, (2) construct professional learning community for teachers' expertise buildup, (3) create organizational culture that allows for, and promotes, reconfiguration of curriculum, and (4) introduce measures for students with difficulty in adapting to class and students with low grades, so that all

learners can participate and learner-participating classes are revitalized.

Teachers shall (1) proactively participate in the learning community for expertise buildup, (2) create organizational environment where co-worker's curriculum reconfiguration and application of new teaching-learning methods are promoted and cooperated with, (3) have patience to allow for sufficient practice opportunities for learners for the creation of self-directed learning culture and for adapting to new teaching-learning methods like debates and project-based learnings, and (4) (although simultaneous improvement of curriculum, class, and evaluation system is the best way) make efforts to class improvement, as it is the most accessible improvement at the teacher level.

A considerable portion of education policy is organically connected, and therefore, making singular improvement in one section will unlikely have desired results. Learning contents, methodologies, and evaluation systems in primary and middle schools have their independent and exclusive areas, but they are also closely related. This triad is closely related to national curriculum development system, high school entrance system, post-secondary entrance system, teacher fostering system, teacher selection system, teacher training system, teacher promotion system, school culture, and even social culture. To improve all these systems, much time and deliberation from many people, and therefore cannot be done at once. Notwithstanding the ignorable tangible results, improvement must start with teaching-learning methods at teacher level, and schools must create atmosphere for encouraging teachers' such efforts, and city and provincial school boards must enable teachers to exercise autonomy and expertise without feeling pressure, and the central government must create conditions where such attempts can disperse and settle through scrutiny into related policies.