A Study on the Revision of the Document System of National Curriculum for the Subject Curriculum Development in South Korea

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Abstract: The purpose of this study is to review the process of curriculum revision in order to understand what should be included in the newly revised curriculum in Korea where the national curriculum system is in place. Specifically, this study is referring to the contents that need to be documented within the subject curriculum development as the 'document system' and it will look into how the process of revising the document system works and its results. The study was conducted by exploring the current issues of the currently implemented subject curriculums and their solutions through a consultative group with experts from March 12th, 2014 for approximately 10 month. As a result, a set of guidelines for subject curriculum development was produced and was reviewed subsequently. This study suggested a plan to implement core ideas along with the document systematization for the document system and the document systematization included individual factors such as subject curriculum's characteristics, goals, content structure, achievement standards, teaching and learning methods, evaluation and textbook development. Also, in order to reflect the core ideas to the document system, a new content structure table was developed and this table contained guidelines for each factor. The content structure table was composed of 'subject area', 'big idea', 'content (generalization)', 'content by grade (grade cluster)' and 'function'. The achievement standards were developed by combining the 'content by grade (grade cluster)' and 'function' which in turn reinforced the relation to the content structure table.

Key words: Subject curriculum development, document system, guidelines for curriculum development, curriculum revision

INTRODUCTION

The national curriculum development attempts to change the school's curriculum by suggesting the common standards for all subject curriculums. Such education system based on the national curriculum can be found in Korea and other various countries such as Japan, UK, etc. The US has recently started to consider developing nationally standardized subject curriculums for English and math subjects. Considering such trend, a study providing insight into how a national subject curriculums are revised throughout the world would be academically significant. Korea especially has a long history of national curriculum education system which is implemented from the very first curriculum the students encounter. Therefore, it will be significant in terms of pedagogy to see how Korea's curriculum revisions are made.

Normally, the national curriculum revision is made based on societal changes, academic progress and learners' progress. The objectives of the curriculum revision are formed based on these factors and the objective become more specific as the curriculum itself is designed based on curriculum outline and subject curriculums. The subject curriculum especially plays a significant role in the development of the objective of curriculum revision. Therefore, it can be said that the subject curriculum is a significant factor in the national curriculum (Lee *et al.*, 2014). And this study is designating the contents which should be documented throughout all subject curriculums as the 'document system' and it will look into how the guidelines for the revision of this system are made and its results.

Context of the study: document system of the subject curriculum: This section explores each section of the current document system for the subject curriculums as a prerequisite to finding areas to improve on within the subject curriculums after the curriculum revision of 2009 (hereafter referred to as the 'current subject curriculums').

Goal (characteristics, goals): The current subject curriculums do not have a section known as 'characteristics' in its document system but most subjects list its characteristics in several paragraphs within the '3. Goals' section (Lee *et al.*, 2013). There are even subjects that specify its characteristics and goals such as the ethics and the home economics and skills which divided

the '3. Goals' section as the 'A. Characteristics' and 'B. Goals' sections. Physical education had its '3. Goals' section divided into 'A. Direction and role of physical education', 'B. Desirable character', 'C. Five recommended areas of physical activities' and 'D. Objectives of physical education' and sections A-C contained the characteristics of the subject itself.

If you look at each subject, language arts, math, social science, natural science, home economics and skills and integrated subjects have no distinction by class within '3. Goals' section but the objectives of the ethics, physical education, music, art and English subjects were distinguished by class (Lee *et al.*, 2013). The ten subjects excluding the ethics had their own goals which were different from the overall goals.

'Content structure and achievement standard's: Content structure and achievement standards' is composed of content structure and achievement standards'. The following characteristics below are the characteristics of the content structure.

First, the subjects of math, ethics, social science, natural science, physical education and art had varying contents based on grade levels. The following characteristics were displayed by subject when it came to the domain of the subjects. For example, social science and home economics and skills subject were divided into geography, social science and history domains when it came to the subject of social science and the subject of home education and skills was divided into skills and home education domains. Similarly, natural science was divided into matter and energy domain and life and earth domain along with other sub domains by the field of science according to the grade level and school districts.

Second, the subjects of language arts, English and music were basic subjects thatdid not feature any contents distinguished by grade. Its contents were determined by subject as language arts subject featured a separate table which divided the subject into domains and these domains were practicality, knowledge, function and attitude. The English subject featured language function, communication activities and verbal material domains each with its own separate table.

The achievement standards are divided into the categories of 'achievement standards by class', 'achievement standards by grade and school district', 'achievement standards by subject area' and 'achievement standards by subject material'. The subtitle of achievement standards vary by subject and the specific titles of each paragraph were 'detailed contents by grade

and school district', 'achievement standards by subject area and material', 'achievement standards by grade and school district' and 'achievement standards', etc.

Teaching and learning methods: Teaching and learning methods featured various subcategories depending on the subject. For example, the subjects of math, ethics, math II, society and culture, life and ethics, music and life featured no subcategories while the subjects of language arts, home economics and skills and language arts I featured the subcategories of 'teaching and learning plans' and 'teaching and learning management'. Social science subject features the subcategories of 'teaching and learning principles' and 'teaching and learning methods'. Home economics and skills subject featured the subcategories of 'teaching and learning plans', 'teaching and learning strategies' and 'teaching and learning data'. The art subject featured 'teaching and learning plans', 'teaching and learning methods' and 'map of contents by subject area'. The integrated subject featured 'teaching and learning plans', 'teaching and learning map' and 'teaching and learning data' subcategories.

Evaluation: Evaluation's subcategories varied as well by subject. For example, the following subjects of math, ethics, math II, society and culture, natural science, life and ethics, home economics and skills and music and life featured no subcategories. The language arts, language arts I and art and culture subjects featured 'evaluation plan', 'evaluation management' and 'utilization of evaluation result' subcategories. The physical education and exercise and healthy lifestyle subjects featured 'direction of evaluation', 'evaluation plan', 'evaluation of contents by subject area' and 'utilization of evaluation result' subcategories. The music subject featured 'direction of evaluation', 'evaluation method' and 'evaluation result utilization' subcategories. The home economics and skills subject featured 'evaluation plan', 'evaluation objective and its contents', 'evaluation method' and 'utilization of evaluation results' subcategories. The social science subject featured 'direction of evaluation', 'contents of evaluation', 'evaluation method' and 'utilization of evaluation results' subcategories.

MATERIALS AND METHODS

The study was conducted by exploring the current issues of the currently implemented subject curriculums and their solutions through a consultative group

with experts from March 12th, 2014 for approximately 10 months and the guidelines for subject curriculum development were set and reviewed.

Text research: Subject: previous studies related to the document system of subject curriculums, previous studies related to the development of subject curriculums, previous studies related to core competence, previous studies related to subject curriculum revision, etc.

Time frame: March to May 2014
Deliberation with the experts: Topic: main issues of subject curriculums, principles of its structure, future development, etc.

Objective: To reinforce the technicalities of the study through taking in opinions of experts from various areas about conducting the research and other related information and to enhance the validity of the study results.

Subject: Subject curriculum experts, teachers, education policy makers, education specialists, etc.

Time frame: April to November 2014
Workshop and debate forum: Topic: workshop for exploring the main issues within the composition of subject curriculums, debate forum to devise principles for designing subject curriculums.

Objective: To verify the main issues within the composition of subject curriculums through experts and to find solutions in order to set the course for designing subject curriculums for the future.

Subject: Education policy makers, curriculum experts, subject curriculum experts, teachers, etc. Time workshop: May 15th, 2014 debate forum: June 26th, 2014.

Public debate forum: Topic: public debate forum to set the direction for the future of subject curriculum development.

Objective: To make the study results related to subject curriculum development for the future public with variety of people and to verify its validity.

Subject: Curriculum experts, subject curriculum experts, teachers, education policy makers, education specialists, etc. Time: July 24th, 2014.

RESULTS AND DISCUSSION

Lack of consistency between the items within the document system: The current subject curriculum document features the following standardized document system with the following categories as shown in Table 1. For the subcategories that are included in the larger categories, their standards may be somewhat vague and vary by subject. For example, the category of '4. Standards for selecting contents within subject area' for the middle school natural science curriculum features the subcategories of 'A. Content structure', 'B. Achievement standards by grade and school district (or class)' and 'C. Achievement standards by subject material'. Also, the ethics subject was divided into domains by grade (grade cluster) while language arts subject divided into the following domains: knowledge, function, attitude, practicality. Such lack of consistency between the contents of the subjects make it more difficult for the teachers to understand the subjects and ultimately causes accountability issues for teachers pertaining to the subject curriculum. This also causes difficulty in restructuring the curriculums for other related subjects as well as the teacher's curriculums.

Necessity for the implementation of 'big idea': The category of '4. Standards for selecting contents within subject area' must suggest the domain of contents within the subject curriculum and its achievement standards accordingly. But the documents for subject curriculums seems somewhat insufficient to suggest the domain of contents and the principles that form the standards. The document does not feature the central point of content structure and simply just features domains and this in turn, limits the extent to which the subjects are able to be linked and their boundaries and integration. For example, the current social science subject curriculum lacks in terms of explaining how its contents were selected and structured. If the contents are featured by the form of listing, it is difficult to expect to reduce the subject contents and to restructure the teacher's curriculum.

To resolve this issue, a 'big idea' of the subject must be selected while there is still necessity to create conditions for a merged subject through linking similar concepts between subjects. The big idea is what every student should know after learning and it is also the concept that plays a central role in explaining the identity of that particular subject (Kim and Ohn, 2011). Students can learn that the knowledge obtained from the subject can transfer onto a different subject through the big idea and also refer to the big idea for resolving problems in real life as well. Teachers can utilize the big idea to understand the relevancy of the contents to the

Table 1: Newly designed document system and current subject curriculum document system

Document system	Desirable character	Educational objectives by class	Characteristics (goals)	Standards for selecting contents within subject area	Teaching and learning methods	Evaluation	Direction for textbook development
Current system	Desirable character	Educational objectives by class	Goals	Standards	Teaching and for selecting contents within Subject area	Evaluation learning methods	

subject and this in turn could be used to plan learning activities for the students. The elementary school teachers especially could utilize the big idea to reconstruct a unit within the curriculum or to integrate a different subject into the curriculum rather than going forward as the textbook goes. The big idea could be utilized to unify the contents within the subject and to integrate different subjects together.

Overall direction for improvement: The overall direction for improvement based on the issues of the current curriculum's document system and the societal demands is as follows. First, the classification system of the larger categories must be rearranged and its contents must be designed systematically. There is a need to separately suggest the characteristics from the goals in order to emphasize the core competence within the subject curriculum's document system. There is also a need to determine a new direction for the textbook development in order to improve the link between the curriculum and the textbook and to suggest a new set of guidelines accordingly as well. Second, there must be a set of guidelines that can express in detail the contents of each category under the subject curriculum such as characteristics, goals, content structure, achievement standards, teaching and learning methods, evaluation and textbook evaluation. Third, the 'big idea' must be introduced within the content structure and the subject material must be structured around this concept. Fourth, code the contents that are included within the content structure to improve the document system overall which in turn will strengthen the link with the curriculum restructuring and achievement standards. The improvement plans for each category were suggested in great detail below in the set of guidelines and its explanations.

CONCLUSION

The following guidelines for the document development has resulted based on the analytical results and the direction of improvement.

Guidelines for the document system structure: The subject curriculum document system shall be composed of 'desirable character', 'educational objectives by class',

'characteristics', 'goals', 'standards for selecting contents within subject area', 'teaching and learning methods', 'evaluation' and 'direction for textbook development' categories. The 'standards for selecting contents within subject area' category will be divided into two subcategories of 'content structure' and 'achievement standards'. Guidelines for 'characteristics': introduce each subject's unique characteristics. Suggest the unique characteristics of each subject specifically to make them relevant to the 'desirable character' and 'educational objective by class' categories. The common items that should be suggested by the characteristics are 'the necessity and the role of the curriculum (nature, intent, function, etc.)', 'subject area' and 'the big idea which should be taught through the subject'. Each subject may suggest the subject's characteristics, or link to other subjects by class and relevance to other subjects if deemed necessary. However, no item which does not express the characteristics of the subject shall be included.

Guidelines for 'goals': The goals should express the direction the subject curriculum should pursue and explain the point that the student should reach through learning. The goals shall be written with its link to the 'desirable character' and the 'educational goals by class' categories. This section will contain the overall goal, goal by class and sub-goals but it does not include any titles that would divide each item into sections. When the goals of a subject that is taught to two or more classes are being explained, the overall goal of the subject must come first before the goals by class. Only the goals for class shall be suggested for the subjects that are taught only to one class. Goals should be identified by class but the goals by grade and school district may be suggested based on the subject. Each subject may suggest goals reflecting the core competence when necessary or possible. The sub-goals should be written which include verbs that prompt the students to act. The number of sub-goals should be between 3~4 and may be suggested flexibly depending on the characteristics of the subject. Guidelines for the 'content structure' among the 'standards for selecting contents within subject area' the categories of 'area', 'big idea', 'content (generalization)' and 'function' which form the subject shall be introduced in the form of content layout table.

The content layout table shall have the subject area, big idea and content (generalization) on the vertical axis while the class is on the horizontal axis at top. The 'Function' should be placed on the right side of the table to express the capabilities expected from the students through learning the subject. Suggesting subject material and topic within the contents by class (school district) is prohibited but it is rather recommended to specify and suggest the content (generalization) which could express the link between classes. Guidelines for the 'achievement standards' among the 'standards for selecting contents within subject area'. The achievement standards shall be written based on the content layout table in forms of sentences including the contents by class and function. The codename referring to achievement standards should be written prior to the achievement standard valueand the codename referring to other subjects and affiliation with other subject areas are placed behind the achievement standard value. Elementary schools should assign achievement standards by class and school district and middle schools should assign achievement standards by class. Guidelines for the 'evaluation' and 'teaching and learning methods' teaching and learning methods and evaluation plan that blends the liberal arts and natural science subjects together. Teaching and learning methods and evaluation plan that can materialize the core competence. Teaching and learning methods and evaluation plan according to the 'content' of each subject. Teaching and learning methods and evaluation plan that considers the relevance and link between subject areas and subjects.

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