



## What are the Effects of the Change in the Assessment Systems on the Alignment between Curriculum, Teaching and Assessment? A Case in Korean Middle Schools

Hyoshin Lee

*Konkuk University Glocal Campus, Korea*

This study aimed to analyze how the various assessment systems affecting middle school English education has changed over the recent decade, investigate the effects of these assessment system changes on alignment between curriculum, teaching and assessment, and find implications for effective middle school English education. Document analysis was used to address the changes in the assessment system over the recent decade. It identified that there was a great change in the assessment system in that period. The assessment within middle schools was changed from NRTs to CRTs in 2012, which has affected the high school admission process since 2012. In the CSAT, the assessment of English subject has experienced a change from NRTs to CRTs since 2018. In addition, the NAEA has changed from assessing all 3 graders in middle school and 2 graders in high school to only assessing students from sampled schools since 2017. As a result, the assessment systems which were criticized as a significant barrier that distorted middle school English education due to negative washback effect have been improved. Secondly, a questionnaire survey showed respondents' positive perceptions regarding their practice to the alignment at all stages of planning, teaching, and assessment. However, issues not corresponding to their positive perception were identified in the implementation process. Thirdly, it was confirmed that there was a consistent difference in the perception among teachers by school levels as to the effect of changes in the assessment systems on the alignment. Particular attention needs to be paid to the significant difference between the results of middle and high school teachers in almost all the issues. This suggests that the difference between of middle and high school teachers should be reflected on English education policy along with the change in the assessment systems.

**Keywords:** alignment, curriculum, teaching, assessment

### Introduction

The impact of tests on the teaching and learning in school is so great that the debate about the innovation of school education often focuses on changes in the assessment system. In recent years, the impact of university admission system, including the College Scholastic Aptitude Test (CSAT) on elementary and secondary school education has been so great that the discussion to explore ways to cultivate talents to prepare for future society has returned to university admission system. The Korean government established the modified university entrance system through “deliberative process,” which is criticized as failing to reach a consensus regarding how to innovate the current education system for elementary and secondary education to effectively educate students for the knowledge and information society (MOE, 2018). This attributes to the washback effect of the assessment. Washback is defined as “the impact that a test has on the teaching and learning done in preparation for it.” (Green, 2013, p. 40)

The tests in the English subject, which play a key role as a gatekeeper by acting as an important benchmark in university entrance and the job market in Korean society (Kim, 2012), wield enormous influence. English ability is an important criterion in the university admission system, not only in the special selection process that is conducted by the individual university but also in the high school entrance examination (Lee, 2016). The assessment systems to affect English education in middle schools are middle school examinations, high school entrance examination, university entrance examination, and National Assessment of Educational Achievement (NAEA). Bearing this in mind, the Lee Myung Bak administration (2008-2012) adopted a comprehensive approach to English education policy. Emphasis was placed on the assessment system such as the development of National English Ability Test (NEAT). It was an English test which included speaking and writing as well as reading and listening and used a criterion-referenced test (CRT) which was different from the CSAT using a norm-referenced test (NRT). In addition, the Lee Myung Bak administration changed the middle school assessment system from using the NRTs to using the CRTs, which influenced the change in the entrance examination of the high school in which the principal selects the students.

These changes, however, have not been enough to enhance the public's satisfaction with English education. In Korea, English tests in which students are asked to answer the given questions mainly using multiple-choice are criticized. The convenience of exerting the tests, solving the given questions on English tests is still popular, and it survives mainly in the private institute. Parents are even more critical. One parent said that "a student at a kindergarten who learned and enjoyed English loses interest and regards English learning as a burden. It is perceived that we cannot find the solution unless we change the public education system." (Hankookilbo, 2017)

This study is classified into the washback effect research which analyzed the relationship between the change in the assessment system and school education. Studies of washback effect in language testing contexts address either the ongoing effects of an established assessment program or the impact of changes in the assessment system on educational performance (Green, 2013). The purpose of this study is to investigate the effect of the assessment system on the school English education in terms of analyzing the effects on the alignment between curriculum, teaching, and assessment. The assessment system that affects Korean middle school English education includes tests for academic performance in middle school, high school entrance examination, university entrance examination, and NAEP.

As the CSAT and the NAEP are standardized tests conducted by the educational institutes outside school, the teacher is in a passive position. By contrast, the teachers are standing as an assessment developer in school tests and are expected to have the power to enhance the alignment between curriculum, teaching, and assessment. This requires teachers to be equipped with different competencies.

This study aims to analyze how the various assessment systems affecting middle school English education have changed over the recent decade, investigate the effects of these assessment system changes on alignment between curriculum, teaching and testing and find implications for effective middle school English education. Two research questions are as follows:

- 1) What changes were made in the assessment system between the Lee Myung Bak administration (2008-2012) and the Park Geun Hye administration (2013-2017)?
- 2) How have teachers of English in Korean middle schools practiced the alignment between curriculum, teaching and assessment and what factors have influenced the implementation?

In this study, the assessment system in the Lee Myung Bak administration (2008-2012) and the Park Geun Hye administration (2013-2017) were analyzed. This period is expected to provide lessons for the implementation of the 2015 curriculum, which has been in effect since 2018, in that over the period the comprehensive English education policy were implemented and change was made in related assessment system. The study focuses on middle school considering the fact that it is a time to try various English education policies while being less influenced by college entrance examination.

## Theoretical Background

### Assessment

Raising the standards of learning in schooling has been an important national priority. Governments throughout the world have made efforts to make changes in pursuit of this aim. They take a variety of forms: national standards; target setting; enhanced programs for the external testing of students' performance; initiatives to improve school planning and management; and inspections (Black & William, 1998). Tests have been regarded as important measures to meet public demand for accountability and achieve high performance in education. Accordingly, attention has been paid to the tests and standardized tests have been used to compare students through which every score can be interpreted in a uniform manner for all students and schools (McKinley & Thompson, 2018).

Tests can be classified into two groups: norm-referenced tests (NRTs) and criterion-referenced tests (CRTs) according to their interpretation purposes, ways of selecting content and the scoring processes (Bond, 1996). NRTs are used to classify students through producing a dependable rank order of students (Stiggins, 1994). They are also useful for placing students in remedial or gifted programs as well as helping teachers select them for different ability groups. The content of NRTs aims to assess how well it ranks students from high achievers to low. As a result, the results of NRTs are interpreted in relation to the performance of the students who participated in the test. The information can be used for deciding whether or not students need remedial assistance or can be given a gifted program.

On the other hand, CRTs are used to identify what students can do and know individually rather than comparing to other students (Anastasi & Urbina, 1997). They report the performance of a student relative to a predetermined performance level on a set of educational goals or outcomes. The content of CRTs is selected by how well it meets the learning outcomes that are considered the most important. In this sense, while CRTs select content on the basis of its significance in the curriculum, that of NRTs is chosen by how well it compares students (Bond, 1996). CRTs give more information to students, teachers, and parents about how much the students have learned than NRTs as the report of CRTs include detailed information about how well a student has achieved on each of the educational goals included in the test. Considering the characteristics of the two types of tests, educators are advised to bear the three points in mind in choosing tests: whether the assessment strategy of a test corresponds to the educational goals, whether the test deals with the content aiming to assess, and whether it allows the interpretation of the performance as the educators aim to make about (Bond, 1996).

The importance of the link between assessment and curriculum is related to the washback effect. Washback effect is defined as the influence that language testing makes on curriculum design, teaching practices, and learning behaviors. Its influence appears in the form of the choices of learners and teachers. For example, teachers may teach to a test, or learners might focus on aspects of language learning likely to be assessed in the future study (McKinley & Thompson, 2018). The washback effect in language testing is evaluated as positive and negative according to "the extent that it encourages or discourages forms of teaching and learning intended by the test developers or considered to be appropriate on their grounds" (Green, 2013, p. 40). A test with positive washback enables teaching the curriculum to become the same as teaching to the test. By contrast, a mismatch between the stated goals of instruction and the focus of assessment can cause negative washback, leading to the abandonment of instructional goals in favor of test preparation (McKinley & Thompson, 2018). The increase in public demand for accountability has resulted in the attention to the tests, particularly to the standardized tests used to compare students through which every score can be interpreted in a uniform manner for all students and schools (McKinley & Thompson, 2018). The negative washback effect of the large-scale standardized test resulted in the increase in demand for a change in the system (Black & William, 1998).

Black and William (1998) raised the importance of the formal assessment as an in-class assessment method, criticizing that efforts to improve academic performance failed to achieve the planned objectives by considering the classroom in which teachers' classes and students' learning are conducted as black

boxes. As a result, assessment in the classroom became a major element of teaching-learning as assessment for learning or formative assessment (Park, 2013). This is based on the recognition that changes in curriculum must be followed by the change in the assessment in order for them to be effective. This means that the assessment should be converted to an assessment method that emphasizes the “process” so that the assessment itself becomes a meaningful learning experience beyond the assessment of ‘result’ of the learning that measures the degree of knowledge or function learned by the learner.

Shepard (2000) also suggested a new relationship between curriculum, teaching, and assessment in terms of change in assessment. The 20th century paradigm (1900-2000+) dominated by historical social efficiency, activist learning and scientific measurement was transferred to the new paradigm (1990s-2000+) emphasizing the alignment between the curriculum, teaching and testing based on social constructivist approach. However, criticizing that the paradigm of the 20th century still dominates the recognition of the assessment of teachers, he pointed out that there is a situation in which the education and traditional assessment are operated independently (Shepard, 2000).

Assessment for learning is a recursive structure in which three elements including achievement standards or learning objectives, teaching and learning, and assessment systems are aligned (MOE & KICE, 2013). Shepard (2000) argued that assessment should be that in the course of learning. To this end, it is desirable that classroom culture should be changed into learning culture and assessment should be implemented in the process of dynamic and process-oriented context. Also, diagnosis of prior knowledge should be found in open discussion and educational dialogue. In addition, he emphasized that explicit and transparent criteria be set for assessment and suggested that self-assessment and class assessment should be utilized for improvement of teaching and learning. Finally, he emphasized that this change can only be achieved by skilled teachers. It is a backward design that links assessment and learning. The backward training course is a three-step curriculum design model with identifying desired results, determining acceptable evidence, and planning learning experiences and instruction. In this model, the assessment is planned at the same time as confirming the goal, and the feedback is made after confirming the goal through the assessment (Wiggins & McTighe, 2005). The achievement assessment system introduced in middle schools in Korea in 2012 is based on these ideas.

### **Alignment between Curriculum, Teaching and Testing**

The school curriculum must be consistently organized and sequenced so that students can effectively learn what is necessary. In so doing, curriculum, teaching, and assessment are aligned to the learning objectives. However, they are implemented separately in schools. As a result, instead of forming an organic relationship, it is pointed out that “textbook-based school curriculum leads to teaching for progress, resulting in assessment for grading” has become a practice (Lee, 2015, p. 21).

Emphasizing the importance of alignment between components in order for the education system to work well, Herman and Webb (2007) pointed out that it was necessary to align assessment, teaching-learning, and curriculum standards. La Marca, Redfield, and Winter (2000) introduced the meaning of “to align” as “to bring into a straight-line; to bring parts or components into proper coordination; to bring into agreement, close cooperation.” In the school context, it is well documented in Tyler’s traditional educational goals theory (Tyler, 2013). According to his theory, the curriculum of each grade is accumulated and the precedent learning is helpful. In the classroom situation, it means that there is a harmony between the goal, the activity, and the assessment of the teacher in the classroom situation. La Marca et al. (2000) emphasized that students should understand what they are going to do and be assessed to show their knowledge and skills as expected in the curriculum. The interest in linking curriculum goals and assessments is based on national education reform initiatives that began with attention to the quality of education. Standard Based Reform began in the United States as part of a campaign to ensure the achievement and accountability of school education and expanded to No Child Left Behind. The basic principles of Standard Based Reform are standards-based teaching-learning curricula and standards-based assessments (Sahlberg, 2011). As a result, the linkage between standards and assessment is the core of

educational reform efforts that serve as a measure of success in these reform efforts. A mandatory student assessment specifies what the school teacher is teaching and what the student is learning.

The Korean Ministry of Education emphasized the alignment in teaching and assessment model in which learning design is followed by teaching and assessment, leading to learning record (MOE, 2016). This model stresses self-directed learning at the learning design stage, requiring the establishment of the learning activity design and assessment plan considering the students' ability. At the stage of teaching and assessment, the teacher explains to students the basic concepts and activities of the unit, and the students engage in self-directed activities in class. Such activity-oriented lessons can be seen as strengthening the new paradigm of activities as the curriculum operation moves away from existing classroom lessons. Learning activities emphasize self-directed, student-centered, inquiry-oriented lessons such as discussion, research and presentation, project-based learning, and experiment and practice.

This is understood as an effort to disseminate the activities that have been carried out by the local schools. For example, the Gyeonggi Provincial Office of Education defined alignment as reconfiguring curriculum based on achievement standards, practicing student-centered instruction focusing on the reconfigured curriculum, assessing student activities, and recording the assessment process. Kim (2017) stressed that the misalignment led to teaching focusing on answering the given question and assessment for comparing students.

## Methods

### Document Analysis

Document analysis was used to analyze the first research question: What changes were made in the assessment system between the Lee Myung Bak administration (2008-2012) and the Park Geun Hye administration (2013-2017). Document analysis refers to a systematic procedure for reviewing and evaluating documents, including printed and electronic materials (computer-based and internet transmission) (Bowen, 2009). Like other methods of qualitative research, document analysis must be validated to derive meaning, gain understanding, and develop empirical knowledge (Corbin & Strauss, 2008). Materials used for document analysis include publicity materials, minutes, manuals, background reports, books and brochures, press releases, newspaper articles, surveys, and various public records. In this study, information on the Ministry of Education press releases, newspaper articles, public records, department reports, policy explanatory materials, manuals, research reports, discussion materials, and related academic papers were collected.

The collected data were extracted and reconstructed to fit the research question. This process was used to identify the process of change in the assessment system and to identify the impact on middle school English education. In order to ensure the objectivity and accuracy of the document data, the data was cross-checked by those collected from other sources.

### Questionnaire Survey

The questionnaire survey was conducted to address the second research question: How have teachers of English in Korean middle schools practiced the alignment and what factors have influenced the implementation? The questionnaire was developed through revising the self-diagnostic questionnaire regarding alignment (Kim et al., 2016) and developing new items regarding English education for the purpose of the English education policy research. The questionnaire consists of four areas: (1) perception of change in assessment system (3 items) (2) perception of alignment between curriculum, teaching and assessment (4 items) (3) perception of English education goal (2 items) (4) practice of alignment between curriculum, teaching and assessment (6 items) (5) perception of English teachers' competences (3 items). A five-point Likert scale was used to measure secondary English teachers' attitudes. Each item provides 5

options: Strongly agree, agree, neither agree or disagree, disagree, strongly disagree. The Cronbach  $\alpha$  to provide a measure of the internal consistency of a test for each area was between .847 and .647.

TABLE 1  
*Items and Reliability*

Areas	No. of items	Cronbach $\alpha$
Perception of change in assessment system	3	.808
Perception of alignment between curriculum, teaching and assessment	4	.876
Perception of English education goals	2	.715
Practice of alignment between curriculum, teaching and assessment	6	.895
English teachers' competences	3	.647
Total	18	

The questionnaire survey was conducted online in 2017 for English teachers at A Metropolitan Office of Education. Although this research focused on middle school English education, elementary school and high school English teachers were also included in the questionnaire to investigate the difference between the school levels. The teachers in the A local office of education had experience in participating in the national research (Kim, Woo, Jeon & Jin, 2010) and the researcher's previous study on English education policy (Lee & Jeon, 2018), so it is useful to investigate characteristics related to English education.

The total of 655 respondents responded to the questionnaire survey. They include 227 elementary school students (34.7%), 210 middle school students (32.1%), and 218 high school students (33.3%). Respondents' background information is as follows.

TABLE 2  
*Respondents' Background Information*

		Frequency	Percentage
Schools	Primary schools	227	34.7
	Middle schools	210	32.1
	High schools	218	33.3
	Overall	655	100.0
Gender	Male	159	24.3
	Female	496	75.7
	Overall	655	100.0
Years of teaching	0-5 years	153	23.4
	6-10 years	161	24.6
	11-20 years	205	31.3
	21-30 years	108	16.5
	31 years and over	28	4.3
	Overall	655	100.0

The questionnaire was analyzed using SPSS 25, and descriptive analysis and ANOVA analysis were conducted. Focusing on the data of middle school which was the scope of this study, the results of elementary school and high school were also presented to compare with those of middle school.

## **Changes in Assessment System of English Subject in Middle School (2008-2017)**

### **Assessment of English Subject within Schools**

The policy to change the method of assessment in middle and high schools started with the awareness that the NRTs with nine grades had limitations in terms of teaching and learning and assessment.

Moreover, it was pointed out that it induced excessive stress on the students and promoted exclusive competition among the classmates and hindered cooperative learning in terms of teaching and learning activities. In addition, in terms of the assessment, it was pointed out that the existing assessment system limited students' opportunities to choose various subjects according to their aptitude. To overcome these limitations, the assessment system was revised (MOE, 2018).

For this purpose, the written test was expanded to a certain degree (20-40%) or more to enhance the higher level ability such as creativity and problem solving ability. In addition, the performance assessment linked to teaching in school was encouraged. In addition, the achievement assessment system which emphasizes the process-oriented criterion-reference assessment was introduced. It assesses the academic achievement level according to the curriculum-based achievement standards and assigns the achievement level as "A-B-C-D-E." In addition, the rank was eliminated at middle school. As a result, the institutional basis for strengthening the alignment has been established (MEST, 2011).

The introduction of the achievement assessment system was expected to change school education activities. Moreover, changes in teaching and learning activities were required. It was expected that the alignment would be strengthened by organizing classes according to achievement standards. In addition, the teachers should prepare and implement the assessment reflecting the nature of the CRTs. Also, assessment was expected to be developed considering the level of the students based on the national curriculum. The results of the assessment would be combined to evaluate the achievement of the students in each subject. The introduction of the achievement standard assessment system would be expected to stimulate the teachers' collaboration. Teachers should establish assessment plans for each semester and develop assessment methods in accordance with the plan of preparation after establishing standards and achievement levels (MOE & KICE, 2013).

When designing school curriculum through the introduction of achievement standards, the educational goal, contents of education, method of teaching and learning, and assessment method should be consistent. These activities require teachers' assessment expertise to establish a scientific and systematic assessment plan and to produce validated assessment tools (MOE & KICE, 2013). The MOE developed and provided the achievement standards and the performance assessment operation manual to support the achievement standard assessment (MOE & KICE, 2013). In addition, a guidebook was developed and distributed. Teacher development programs were also provided to enhance the assessment expertise of teachers.

## **High School Entrance Examination and English Subject**

Since 1998, when the high school system started to become complicated, the admission system became more complicated (Back et al., 2015). In this period, entrance examination for the foreign language high school and the autonomous private high schools in which the principals select students was affected by the academic record of English subject. As academic record for English subject, which influenced high school admission, was calculated through NRTs before 2011, teachers in middle schools had the pressure to create 'trap questions' for grading. The change in the assessment system in middle school from the NRTs to CRTs since 2012 has led to the change in the high school admission system.

## **University Entrance Examination and English Assessment**

Issues frequently arise regarding the CSAT using NRTs with 9 grades in only reading and listening skills (Kim et al., 2010). The biggest issue was that the CSAT was an obstacle in improving secondary school English education. With this critical awareness, Lee Myung Bak administration (2008-2012) began to develop NEAT (Jeon & Lee, 2017; Kwon, 2015). NEAT assessed four functions including speaking and listening, and the scoring method was also pursued as CRTs. The main goal was to normalize English education at high school by replacing CSAT with NEAT. NEAT, which was supposed to replace the test of English subject in the CSAT in 2015 when conditions were set, was suspended due to the concern about the burden of the private education expenses in 2013 (MOE, 2013). Instead, the

CSAT using NRTs was converted to the one using CRTs, which was applied in 2018 (Kwon, 2015).

Although the introduction was discontinued, it was found that English education conditions improved due to NEAT development and other English education policies. Examples are the rate of student-centered learning activities (75.1%), student satisfaction with speaking and writing (72.8%), and the percentage of schools with conversational class once a week (79.5%) (MOE, 2015).

## **Assessment of Academic Achievement**

The NAEA has been conducted annually since 1986. It aims to identify students' academic achievement status and change trends, provide data for improving curriculum and education policy, give basic data for improvement of teaching and learning, and play a role as a model for assessment (Kim, Song, Kim & Lee, 2011). In 2009, it changed from assessing students all 3 graders in middle school and 2 graders in high school to only assessing students from sampled schools. The change intended to grasp the achievement of the individual student and strengthen the monitoring of the basic education level (Kim et al., 2011).

There has been active debate on the test. Positive effects are that result disclosure secures the right of students and parents to know and enables schools to support students with under-achievement. On the other hand, it is pointed out that the disclosure of the results ranks schools and students, leads to school education uniform, and over-heated competition among students (Kim, 2011). Reflecting this viewpoint, the Ministry of Education announced that the results of 3% of the sampled schools would be analyzed from 2017 (MOE, 2017).

## **Results of Questionnaire Survey**

### **Factors Affecting Alignment between Curriculum, Teaching and Assessment**

#### **Perception of change in assessment system**

Table 3 shows the perception of English teachers regarding the change in the assessment system. The respondents were relatively positive to "using CRTs for school-based instruction" (Mean 3.81) and "changing the CSAT using CRTs" (Mean 3.56). By school level, the elementary school was the highest in both items and the lowest in the high school. There was a statistically significant difference between elementary school and middle school in "using CRTs for school-based instruction." However, there was no significant difference between elementary school and middle school in "changing the CSAT using CRTs."

On the other hand, "the positive effect of the introduction of CRTs on communication-oriented English class" (Mean 3.19) was relatively low. There was no statistically significant difference between elementary school teachers (Mean 3.49) and middle school teachers (Mean 3.24), and high school teachers were below average (Mean 2.83).



TABLE 3  
*Perception of Change in Assessment System*

Item		N	Mean	SD	SE	F	P	Scheffe
1	ES	227	4.14	.95	.06	20.32	.000	ES>MS>HS
	MS	210	3.78	1.11	.08			
	HS	218	3.49	1.17	.08			
	Total	655	3.81	1.11	.04			
2	ES	227	3.84	1.05	.07	15.69	.000	ES>HS MS>HS
	MS	210	3.60	1.17	.08			
	HS	218	3.23	1.23	.08			
	Total	655	3.56	1.18	.05			
3	ES	227	3.49	1.09	.07	19.70	.000	ES>HS MS>HS
	MS	210	3.24	1.13259	.08			
	HS	218	2.83	1.09892	.07			
	Total	655	3.19	1.13813	.04			

1. Using CRTs for school-based instruction is desirable for English education to improve communication skills.  
2. Considering the washback effect of CSAT on secondary school education, changing the CSAT using CRTs is desirable.

3. The introduction of CRTs will be helpful for enabling teaching English more communicative.

\* ES: elementary school, MS: middle school, HS: high school

### Recognition of alignment between curriculum, teaching and assessment

Table 4 shows the respondents' perception of the alignment between curriculum, teaching, and assessment. Respondents are well aware of "the concept of alignment" (Mean 4.24), agrees that "alignment is important" (Mean 4.28), "well understand the achievement standards" (Mean 4.17), and "have expertise in teaching and assessment making use of the achievement standards" (Mean 4.05). There was a statistically significant difference between the three groups in all items. Respondents consistently perceived the alignment as positive in the order of high school, middle school, and elementary school.

TABLE 4  
*Perception of Alignment between Curriculum, Teaching and Testing*

Item		N	Mean	SD	SE	F	p	Scheffe
4	ES	227	4.47	.60	.04	24.78	.000	ES>MS>HS
	MS	210	4.21	.68	.05			
	HS	218	4.02	.76	.05			
	Total	655	4.24	.71	.03			
5	ES	227	4.48	.65	.04	15.95	.000	ES>MS>HS
	MS	210	4.25	.76	.05			
	HS	218	4.10	.75	.05			
	Total	655	4.28	.74	.03			
6	ES	227	4.50	.63	.04	40.48	.000	ES>MS>HS
	MS	210	4.09	.73	.05			
	HS	218	3.91	.75	.05			
	Total	655	4.17	.75	.03			
7	ES	227	4.38	.69	.05	40.93	.000	ES>MS>HS
	MS	210	4.06	.78	.05			
	HS	218	3.71	.83	.06			
	Total	655	4.05	.81	.03			

4. I fully understand the concept of the alignment between curriculum, lesson and assessment.

5. I think that the alignment between curriculum, lesson and assessment is important.

6. I fully understand the achievement standards that are presented in the national curriculum.

7. I think that I have expertise in teaching and assessment making use of the achievement standards presented in the national curriculum.

\* ES: elementary school, MS: middle school, HS: high school

## English education goals

Respondents had a positive perception of goals of English education set in the curriculum as “practical English-oriented English education” (Mean 4.34) and “cultivate global citizens” (Mean 4.22). There was a statistically significant difference between the teachers at the school level, which was higher in the order of elementary school, middle school, and high school.

TABLE 5  
*Perception of English Education Goals*

	Item	N	Mean	SD	SE	F	p	Scheffe
8	ES	227	4.49	.69	.05	23.73	.000	ES>MS>HS
	MS	210	4.20	.83	.06			
	HS	218	3.97	.84	.06			
	Total	655	4.22	.81	.03			
9	ES	227	4.73	.521	.03	63.38	.000	ES>MS>HS
	MS	210	4.36	.77	.05			
	HS	218	3.92	.93	.06			
	Total	655	4.34	.82	.03			

8. I agree that the goal of English education set in the National Curriculum is desirable. It is to cultivate the quality global citizens with the communication skills

9. I agree that it is desirable to take English lessons centering on living English that can be used in real life.

\* ES: elementary school, MS: middle school, HS: high school

## Practice of Alignment between Curriculum, Teaching, and Assessment

Table 6 shows the effect of change in the assessment system on the practice of alignment. In the planning stage, it is found that “the curriculum is restructured by reflecting the achievement standard” (Mean 4.09), which is the most important factor to be considered in the achievement assessment. It is also found that “learning objectives are set and lessons and assessments are reflected” (Mean 4.03). In the teaching stage, teachers answered that they “clearly state achievement standards or learning goals during the class” (Mean 3.96) and “assessment plan is given to students at the beginning of the semester” (Mean 4.07). Finally, in the assessment stage, they replied that they “conduct process-oriented assessment” (Mean 4.14) and “implement assessment aligned between curriculum, teaching and assessment” (Mean 4.20).

To sum up, teachers were positive to the practice of the alignment in accordance with the achievement standard assessment at all stages of planning, teaching, and assessment in English classroom. There was a statistically significant difference in all the items except the assessment plan guide (item 13) among elementary, middle, and high school teachers, with the highest difference between elementary school teachers and high school teachers.

## Perception of English Teachers’ Competences

The results showed the “importance of collaboration with peer teachers to improve the quality of English education” (Mean 4.36), the “importance of English teachers’ ability to teaching practice” (Mean 4.27), and the “need for teacher development to improve assessment expertise” (Mean 3.81).

There was a statistically significant difference between the groups in the two items. In terms of school level, there was a difference between elementary, middle, and high school teachers in collaboration with peer teachers while there was a difference between elementary school teachers and middle school teachers, and also elementary school teachers and high school teachers in the “need for teacher development to improve assessment expertise.” The lowest perception of the need for assessment expertise stems from the fact that the achievement standard assessment is not yet applied in general high schools.

TABLE 6  
*Practice of Alignment between Curriculum, Teaching and Testing*

Item		N	Mean	SD	SE	F	p	Scheffe
10	ES	227	4.44	.64	.04	43.94	.000	ES>MS>HS
	MS	210	4.05	.79	.05			
	HS	218	3.77	.86	.06			
	Total	655	4.09	.82	.03			
11	ES	227	4.42	.62	.04	51.42	.000	ES>MS>HS
	MS	210	3.96	.84	.06			
	HS	218	3.68	.86	.06			
	Total	655	4.03	.84	.03			
12	ES	227	4.44	.69	.05	66.54	.000	ES>MS>HS
	MS	210	3.85	.90	.06			
	HS	218	3.56	.88	.06			
	Total	655	3.96	.91	.04			
13	ES	227	4.13	.84	.06	2.95	.053	-
	MS	210	4.14	.91	.06			
	HS	218	3.96	.88	.06			
	Total	655	4.07	.88	.03			
14	ES	227	4.4	.61	.04	30.16	.000	ES>MS>HS
	MS	210	4.12	.72	.05			
	HS	218	3.86	.91	.06			
	Total	655	4.14	.79	.03			
15	ES	227	4.45	.62	.04	26.19	.000	ES>MS>HS
	MS	210	4.19	.77	.05			
	HS	218	3.95	.79	.05			
	Total	655	4.20	.76	.03			

10. I restructure the curriculum according to the student's ability and the school's circumstances, taking into account the achievement standards of the curriculum.

11. I set learning objectives and design and implement lessons and assessments taking into account the achievement standards.

12. I clearly state the achievement standards or learning goals during the class.

13. At the beginning of the semester, I guide the students through the assessment plan that reflects the achievement standards.

14. I conduct a process-oriented assessment linked with the class so that the burden of the students is not increased.

15. I implement pen and pencil tests and performance tests aligned between curriculum, teaching and assessment.

\* ES: elementary school, MS: middle school, HS: high school

TABLE 7  
*Perception of English Teachers' Competences*

Item		N	Mean	SD	SE	F	p	Scheffe
16	ES	227	4.52	.63	.042	10.19	.000	ES>MS>HS
	MS	210	4.34	.66	.046			
	HS	218	4.22	.79	.05			
	Total	655	4.36	.70	.03			
17	ES	227	4.47	.59	.04	16.91	.000	-
	MS	210	4.23	.75	.05			
	HS	218	4.09	.75	.05			
	Total	655	4.27	.71	.03			
18	ES	227	3.96	.86	.06	7.11	.001	ES>MS ES>HS
	MS	210	3.82	.91	.06			
	HS	218	3.64	.94	.06			
	Total	655	3.81	.92	.04			

16. I think it is important to collaborate with peer teachers to improve the quality of English teaching.

17. I think that the most important element of an English teacher's qualities is the ability to teaching practice.

18. I think that teacher development that enhances assessment expertise is most needed.

\* ES: elementary school, MS: middle school, HS: high school

## Discussion

This study paid attention to the change in the assessment system to investigate how to improve communication skills that had been constantly oriented in Korea's English language education. The goal of improving communicative skills in Korean middle school English education has been constantly pursued since the term "living English proficiency" (1981) and "English communicative skills" (1987) was used (Lee, 2016).

In the last decade, the externally conducted tests such as CSAT, high school entrance examination and NAEA and middle schools exams have been changed to alleviate the negative washback effect. It can be said that the status of the teacher has changed from passive test-taker to active test-developer. The challenge is to transform middle school English education by providing teachers with the ability to engage in activities appropriate to their changed status.

A questionnaire survey was conducted to investigate the effect of changes in the assessment system on the alignment. Respondents answered that they had aligned the curriculum, teaching, and assessment at all stages of planning, teaching, and assessment considering the achievement standards required by the achievement assessment. There was a statistically significant difference in perception among elementary, middle, and high school teachers in all the items except for the initial assessment plan in the beginning of the semester. Elementary school teachers had the highest and the high school teachers had the lowest.

In the study of Bae and Shin (2016), English teachers of secondary schools answered that the achievement assessment contributed to the improvement of teaching content due to clear presentation of achievement standards (Mean 3.67). This is similar to the response of English teachers of secondary schools (Mean 3.82) to the item of setting teaching objectives and practicing teaching and assessment reflecting achievement criteria. However, the issues arising from the difference from the positive perception were indicated. Bae and Shin's study (2016) reported that 73% of the respondents answered that there was no change in the test method or the type of questions despite the introduction of the achievement assessment. Respondents having experiencing change reported that they tried to lower the degree of difficulty (48.1%). Only 33% answered that they tried to write questions that met the achievement standards. Efforts should be made to fill the gap between teachers' positive perceptions of the alignment and difficulties in the implementation process. Three factors affecting teachers' positive perception of their practicing the alignment were investigated. The results were the positive effect on communication-oriented English education (Mean 3.19), the introduction of achievement standard using CRTs within schools (Mean 3.81) and CSAT using CRTs (Mean 3.56). Bae and Shin (2016) found that teachers preferred CRTs (84.8%) to NRTs, which is similar to the result of this study (82.3%).

Perception that the application of the CRTs will not have a positive effect on the change of English class has also appeared in the study of Bae and Shin (2016). In response to the positive impact of the achievement assessment on respondents, they recognized the reduction of students' learning burden (Mean 3.53) relatively high, while increase of students' active participation in class and collaboration for learning (Mean 3.14), self-directed learning (Mean 3.08), and academic achievement (Mean 3.06) as moderate. The moderate recognition of English teachers seems to be a negative factor in enhancing the alignment.

On the other hand, respondents were positive regarding understanding the concept of the alignment and English education goals set in the national curriculum (Mean 4.24), their importance (Mean 4.28), and identifying the achievement standards presented in the curriculum (Mean 4.17). Furthermore, they recognized that they had expertise in class management and assessment implementation using achievement standards (Mean 4.05). The achievement standards are the criteria for determining whether the students' academic achievement has reached the goal of teaching, which is the most important factor to consider when applying the achievement assessment. As indicated by the results of "I am worried about too much A grade too" (Bae & Shin, 2016, p. 620), it is confirmed that there is still difficulty in calculating the cutoff score even though the achievement assessment is implemented.

All respondents rated the English education goal of practical English education (Mean 4.34) and global

citizen education (Mean 4.22) as very positive, with the highest level of elementary school and the lowest level of high school. It is considered that sharing the perception of the direction of the English education presented in the national curriculum will be positive for strengthening the alignment.

The respondents recognized the importance of collaboration with peer teachers (Mean 4.36) and teaching practice (Mean 4.27) while the need for training to improve assessment expertise was relatively low (Mean 3.81). Collaboration among teachers and assessment expertise of teachers are required in order to implement the achievement assessment. The difficulties in school are pointed out. Although the achievement standards and achievement level are provided, they are not recognized seriously by teachers and the curriculum, teaching, and assessment are not aligned in practice (Chung, 2013). There is a high demand to strengthen collaboration among teachers. Training is needed to improve assessment expertise in order to bring about substantial changes.

### **Implications and Conclusion**

After investigating the effects of changes in the assessment system on the practice of the alignment in Korean middle school, the study suggests implications for effective English education.

Firstly, changes in the assessment systems in middle schools which were criticized as a significant barrier that had distorted middle school English education with negative washback effect laid the foundation for the change in English education in middle schools. This also has changed the status of middle school English teachers from test adopters to test developers. A new task has been assigned to define the assessment expertise of teachers required by the achievement assessment, develop competences, and implement the alignment.

Secondly, despite the advantages of the CRTs, there are concerns that the use of the CRTs may lower the importance of English education in schools, thus reducing academic performance. In particular, the development of NEAT since 2008 aiming at a positive washback effect was stopped in 2014 due to the concern about the increasing private expense. Measures to address the negative impact on English education are needed. The signs of improvement having appeared in school English education conditions occurring during the NEAT development process have been reduced, resulting in reducing the speaking and writing activities and returning to grammar-translation approach in school English education. The use of CRTs in the CSAT English subject since 2018 has accelerated the concern. Considering the side effects of overheated competition in English education, it is inevitable to change to CRTs, but it is argued that English education should continue to improve communication skills (Lee, 2016). We have learned from the NEAT that changing English education in schools through changing a high-stake test such as CSAT is a real challenge. Instead, it is suggested that a system for practicing speaking and writing that can be used in schools applying technologies such as artificial intelligence (AI) should be introduced. It will be effective to apply experiences accumulated during the NEAT development process and use it for process-oriented performance assessment.

Thirdly, factors affecting alignment needs to be taken into account for the change in the assessment system to lead to communicative teaching. It is not just a positive washback effect that changes the way in which the assessment works as a negative washback effect. Previous research (Cheng, 2005; Green, 2007) found that teaching practice did not change to a significant degree while content changes due to the test. It suggests that additional efforts are needed to increase alignment.

Fourthly, in contrast to the questionnaire results by teachers that said they were carrying out high levels of alignment, issues were raised in the implementation process. Previous research identified factors affecting washback effect. They are teachers' beliefs, educational backgrounds and levels of experiences (Pan, 2013). Apart from the individual factors, institutional factors based on the teaching profession can be indicated. This means that it may be difficult to practice substantial alignment, although it is right in theory and is a familiar concept learned by training. Lee (2013) argued that the reason why the change in the assessment system failed in changing teaching practice was based on the fact they exist independently

with its own inertia and institutionalized norms. Major factors are, he pointed out, textbooks that fail to implement the constructivist principle, teachers who have difficulty in practicing new teaching methods, students who are lethargic, and process-oriented performance assessment failing in replacing the pen-pencil test that evaluates simple memorized-oriented old knowledge. Black and William (2012) suggested that it was necessary to pursue changes by accumulating small-scale success experiences and to implement internalization of the formative assessment for a change in teaching. The Tyler model comprising four steps such as determine the school's purposes, identify educational experiences related to purpose, organize the experiences, and evaluate the purposes has a large gap between goals and assessment. It is advisable to apply the backward design (Wiggins & McTighe, 1998) to fill the gap. It is characterized as setting goals before choosing teaching methods and forms of assessment. It not only has the effect of the assessment being consistent with the teaching and goals, but also has the advantage that the pre-design of the assessment will help to achieve the effectiveness of the teaching activities.

Finally, it was confirmed that there was a consistent difference in the perception among teachers by school level as to the effect of changes in the assessment system on alignment. The difference between elementary and secondary schools, as well as difference between middle and high schools, is substantial. This result is the same as that of Lee and Jeon (2018). This suggests that English education that reflects the difference between middle school and high school English education is needed as well as the change in assessment system. For example, in middle school, which is relatively free from university entrance examinations, it is necessary to revitalize English education for four language skills. Restructuring to improve the receptive skills through reading and listening is advisable in high school. Future studies are needed in this topic.

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### The Author

*Hyoshin Lee* is an associate professor in the Dept. of English Language, Konkuk University Glocal Campus, Chungju, Korea. Before moving to the university, she taught English at state secondary schools for about 20 years. She has worked on teacher/trainer training since she received her doctorate degree in teacher development in 2003 from The University of Manchester, UK. She has been involved in a wide range of teacher education programs. Her major interests include professional development, curriculum alignment and ESP.

Email: hslee2012@kku.ac.kr

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