The Operation of Student-Choice Curriculum for High School Credit System

November 7, 2019

Principal of Daejeong High School, Jeju
Okhee, Woo
I. Understanding of the Unit System, the Graded System and the High School Credit System

II. The Case for Organizing and Operating a Student-choice Curriculum

III. Suggestions on High School Credit System
Chapter I

Understanding of the Unit System, the Graded System and the High School Credit System
Introduction of High School Credit System

Establishment of Foundation for the High School Credit System ('18-'21 year)

Partial Introduction of the High School Credit System ('22-'24 year)

Full Introduction of the High School Credit System ('25 year)

• Introduction of the Unit System
  • The Unit System and the Graded System can be used together.

• Curriculum rigidity and lack of electives in a Graded System-based Curriculum
  • Introduce the Credit System

※ 2009.12.(Ministry of Education) : The term 'Credit System' was first used officially

The 2nd National Curriculum (year 1963)

Ministry of Education (2016. 12)

• Introduction and Expansion of the High School Credit System
  • University Admission System Improvement dependent on introduction of the high school credit system

Moon Jae-In's Governments (2017. 7)
Comparison of the Unit System and the Graded System

- The amount of classes for 3 years
- Support students’ choice of Subjects
- Unit acquisition Based on attendance
- Student retakes the failed subject only (no remaining in the same class)

- The amount of classes by grade
- Limit students’ choice of Subjects
- Unit acquisition Based on attendance
- Failure in any subject, student remains in the same class (retakes the whole subject by grade)

- At present, the graded system (in the form of the unit system) is operating.
  - students remaining in the same class: The number of student's days of attendance required for completing his/her respective school year courses shall be two-thirds or more of the number of school days referred to in Article 45. (ENFORCEMENT DECREED OF THE ELEMENTARY AND SECONDARY EDUCATION ACT article 50 paragraph 2 of the Act)

- Until now, the unit system is just a nominal standard, which shows the amount of classes completed by grade in the graded system.

- From the 7th Curriculum, the Unit System regulations was deleted and just the unit standard remains.
  ※ 1unit (at present): 50 min, 17 classes
  2nd curriculum (18 weeks) ⇒ 4th curriculum (17 weeks) ⇒ 2009 revised curriculum (17 classes)
Comparison of the Unit System and the Credit System

Credit System

- Unit System
  + Qualitative Requirements for Credit

Unit System

- Support the students’ subject selection
- Quantitative Requirements for the amount of a subjects

The Unit System and the Credit System are complementary
High School Credit System Concept and Scope of Research School

- ★ Expand student choice (Student-choice curriculum)
  A system with quantitative and qualitative requirements (The revision of the national curriculum)

- Take a variety of subjects dependent on career and aptitude,
when cumulative grades reach the criteria, students can graduate.

The Credit System (quantitative and qualitative requirements)
The Case for Organizing and Operating a Student-choice Curriculum
**School Status** (Small academic high school in a rural area)

### Students
(As of September 1, 2019)

<table>
<thead>
<tr>
<th>Grade</th>
<th>Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade1</td>
<td>95</td>
</tr>
<tr>
<td>Grade2</td>
<td>89</td>
</tr>
<tr>
<td>Grade3</td>
<td>122</td>
</tr>
<tr>
<td>Total</td>
<td></td>
</tr>
</tbody>
</table>

Average number of students per class: 22.77

### School Faculty
(As of September 1, 2019)

Average number of students per teacher: 9.55

- **Average number of students per class**: 22.77
- **Average number of students per teacher**: 9.55
Students/Teachers/School Facilities Analysis

- **Grade Distribution in middle school**
  - severe difference

- **Students' tendency to choose a career and go to university**
  - University Admission Rate: about 88%

- **Preferred courses**
  - Arts and Physical education 25%

- **Number of students**
  - the decrease in the school age population (5class⇒4class)

- **Number of teachers by subject**
  - Earth Science, Japanese, Ethics, History, Physical Education (complemented by teachers in another school)

- **One teacher has to cover multiple subjects**

- **Be able to hire teachers who teach multiple subjects such as** Life/Liberal Arts, specialized subjects
  - possible to hire lecturers through extra curricular activities (Co-teaching)

- **Classrooms for High School Credit System**
  - secure available classrooms due to decrease in class numbers

- **How to secure subject rooms** (lab, specialized subject rooms)
  - classroom restructuring
School Curriculum

School Designation Unit and Student-choice Unit

Grade3 (Humanities Course)  |  Grade3 (Natural Course)  |  Grade2  |  Grade1
---|---|---|---
138 | 164 | 88 | 94

Student-choice Unit by Semester

1st semester (G1)  |  2nd semester (G1)  |  1st semester (G2)  |  2nd semester (G2)  |  1st semester (G3)  |  2nd semester (G3)
---|---|---|---|---|---
Grade3 (Humanities Course)  |  Grade3 (Natural Course)  |  Grade2  |  Grade1
4 | 4 | 4 | 4 | 1111 | 23
6 | 6 | 0 | 0 | 11 | 13
6 | 4 | 4 | 4 | 13 | 13
4 | 28 | 28 | 4 | 4

※ course total units: 180 units
## School Curriculum

### Curriculum Comparison

<table>
<thead>
<tr>
<th>Curriculum</th>
<th>Common Subjects</th>
<th>General Elective Subjects</th>
<th>Career-related Elective Subjects</th>
<th>Specialized Subjects I</th>
<th>Specialized Subjects II</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015 Revision Curriculum</td>
<td>7 subjects</td>
<td>51subjects</td>
<td>42subjects</td>
<td></td>
<td></td>
<td>100subjects</td>
</tr>
<tr>
<td>Regular Subjects</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Admission in 2018(2nd Grade)</td>
<td>7 subjects</td>
<td>44subjects</td>
<td>25subjects</td>
<td>32subjects</td>
<td>5subjects</td>
<td>113subjects</td>
</tr>
<tr>
<td>Admission in 2019(1st Grade)</td>
<td>7 subjects</td>
<td>44subjects</td>
<td>26subjects</td>
<td>38subjects</td>
<td>5subjects</td>
<td>120subjects</td>
</tr>
</tbody>
</table>

※ on-line joint curriculum(2nd Grade/2nd semester): environment(1), international Politics(3)

- **Increase in number of subjects**
  - 48 subjects(Grade 3) ⇒ 113subjects(Grade2) ⇒ 120subjects(Grade1)

- **Increase in number of further subjects and Liberal Arts subjects**
  - Specialized Subjects I (Further) 1 subject(grade 3) ⇒ 32subjects(grade2) ⇒ 38subjects(grade1)
  - Specialized Subjects II(career, hobby) 0(Grade3) ⇒ 5 subjects(Grade2) ⇒ 5 subjects(Grade1)

- A small change in number of subjects in Korean, Mathematics, English area, but various subjects in Social Studies, Science, Arts and Physical Education, Liberal Arts area are organized
### Comparison of Subjects Required (Individual)

<table>
<thead>
<tr>
<th></th>
<th>2 unit</th>
<th>3 unit</th>
<th>4 unit</th>
<th>5 unit</th>
<th>6 unit</th>
<th>8 unit</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Grade 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sub total</td>
<td>6</td>
<td>2</td>
<td>22</td>
<td>-</td>
<td>7</td>
<td>4</td>
<td>41</td>
</tr>
<tr>
<td>School Designation</td>
<td>6</td>
<td>2</td>
<td>7</td>
<td>-</td>
<td>2</td>
<td>4</td>
<td>21</td>
</tr>
<tr>
<td><strong>Student Choice</strong></td>
<td>-</td>
<td>-</td>
<td>15</td>
<td>-</td>
<td>5</td>
<td>-</td>
<td>20</td>
</tr>
<tr>
<td><strong>Grade 3</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Humanities Course)</td>
<td><strong>Sub total</strong></td>
<td>4</td>
<td>2</td>
<td>12</td>
<td>6</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>School Designation</td>
<td>4</td>
<td>2</td>
<td>9</td>
<td>6</td>
<td>7</td>
<td>2</td>
<td>30</td>
</tr>
<tr>
<td><strong>Student Choice</strong></td>
<td>-</td>
<td>-</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>-</td>
<td>7</td>
</tr>
<tr>
<td>(Natural Course)</td>
<td><strong>Sub total</strong></td>
<td>4</td>
<td>2</td>
<td>18</td>
<td>8</td>
<td>9</td>
<td>-</td>
</tr>
<tr>
<td>School Designation</td>
<td>4</td>
<td>2</td>
<td>14</td>
<td>8</td>
<td>9</td>
<td>-</td>
<td>37</td>
</tr>
<tr>
<td><strong>Student Choice</strong></td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>4</td>
</tr>
</tbody>
</table>

Grade 3*: not the research participants

- **Number of individual-taken subjects (3 years)**: almost no difference in the number of subjects
- **Number of individual-choice subjects (3 years)**: Grade 2 (20 subjects), Grade 3 (not the research participants) - Humanities Course 7 subjects, Natural Course 4 subjects
  - Grade 2: individual choice dependent on students’ career and aptitude
  - Grade 3: According to the survey result, electives (only 1 subject) which students choose most can be open.

*Any foreign language can be open as the students’ choice (Chinese or Japanese).
School Curriculum Organization Comparison
(2nd school year for 3 years)

School Designation and Student Choice unit

Comparison between General Subjects and Specialized Subjects

Comparison by subject area

### School Designation and Student Choice unit

<table>
<thead>
<tr>
<th>School</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daejeong</td>
<td>88</td>
<td>92</td>
<td>58</td>
<td>90</td>
</tr>
<tr>
<td></td>
<td>90</td>
<td>90</td>
<td>59</td>
<td>84</td>
</tr>
</tbody>
</table>

※ course total units: 180 units

### Comparison between General Subjects and Specialized Subjects

#### Common Subjects

- Daejeong: 88
- A: 92
- B: 58
- C: 90
- D: 90

#### General Elective Subjects

- Daejeong: 7
- A: 7
- B: 6
- C: 7
- D: 7

#### Career-related Elective Subjects

- Daejeong: 32
- A: 25
- B: 36
- C: 36
- D: 35

#### Specialized Subjects I

- Daejeong: 44
- A: 113
- B: 36
- C: 65
- D: 66

#### Specialized Subjects II

- Daejeong: 7
- A: 7
- B: 7
- C: 7
- D: 7

Total

- Daejeong: 113
- A: 113
- B: 75
- C: 65
- D: 66

### Comparison by subject area

#### Foundation

- Daejeong: 27
- A: 35
- B: 22
- C: 75
- D: 26

#### Inquiry

- Daejeong: 29
- A: 26
- B: 16
- C: 75
- D: 26

#### Physical Education & Arts

- Daejeong: 10
- A: 7
- B: 4
- C: 7
- D: 7

#### Life & Liberal Arts

- Daejeong: 33
- A: 23
- B: 10
- C: 10
- D: 10

### Notes

- **Daejeong High School**: 2nd year of research school in a rural area *A to D: not research schools
- **Academic High School in a Rural area**: Daejeong (4 classes, 89 students), A(4 classes, 89 students), B(8 classes, 201 students)
- **Academic High School in an urban area**: C(10 classes, 341 students), D(12 classes, 414 students)
## Timetable (Grade 2)

<table>
<thead>
<tr>
<th></th>
<th>Mon</th>
<th>Tues</th>
<th>Wed</th>
<th>Thurs</th>
<th>Fri</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>A Time</td>
<td>D Time</td>
<td>B Time</td>
<td>C Time</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>A Time</td>
<td>D Time</td>
<td>B Time</td>
<td>C Time</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>B Time</td>
<td>C Time</td>
<td>Club Activities</td>
<td>A Time</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Club Activities</td>
<td></td>
<td>Career-related Reading</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **A Time Subjects (6 Subjects)**: Society & Culture (23 Students), Life & Science I (18 Students), Physics I (23 Students), Life and Science (17 Students), Physical Education (10 Students)

- **B Time Subjects (6 Subjects)**: Ethics & Thoughts (21 Students), World Geography (26 Students), Chemistry I (22 Students), Physical Education (14 Students), Fine Arts Theory (4 Students), Music Theory (4 Students)

- **C Time Subjects (7 Subjects)**: Ethics and ideology (8 Students), Social Culture (20 Students), World Geography (8 Students), World History (10 Students), Life & Science I (13 Students), Earth Science I (13 Students), Information Science (19 Students)

- **D Time Subjects (6 Subjects)**: Geometry (13 Students), Social Studies Inquiry (12 Students), Chinese II (12 Students), Japanese II (10 Students), Health (24 Students), Information Processing and Management (20 Students)
Difficulties in Organizing and Operating a Student-choice Curriculum and its Solutions

**Teachers**

- The beginning of research school: distrust and concern regarding the high school credit system – disadvantage in school assessment, student guidance, university admission, workload, distrust in a new policy etc.
- Burden of teaching multiple subjects
- Students’ subject selection Guide and Student-parents Counseling
- Heavy workload

- Regular meetings: subject teacher’s meeting/every grade homeroom teachers’ meetings, sharing and improving classes (2nd and 4th week a month)
- Place for meeting and communication
- Expand the opportunities of understanding the curriculum through benchmarking the best school curriculum

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### Meeting Schedule

<table>
<thead>
<tr>
<th>Mon</th>
<th>Tue</th>
<th>Wed</th>
<th>Thurs</th>
<th>Fri</th>
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</thead>
<tbody>
<tr>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Science·Informa·tion</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Korean·Classical Chinese</td>
<td>Mathematcs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lunch</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Grade 1</td>
<td>Grade 2</td>
<td>Grade 3</td>
<td>Society·career</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td>Foreign language</td>
<td>Physical education and Arts</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td>Total</td>
</tr>
</tbody>
</table>

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### Provide Time, Place and Opportunities for Communication

- Understanding and building consensus on high school Credit system
- Publish a guidebook
- Curriculum Analysis and discussion
- Agree to cover 3 subjects per teacher
※ teachers covering over 2 subjects: 60.7%

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**Teachers’ Meeting**
Difficulties in Organizing and Operating a Student-choice Curriculum and its Solutions

Students

- Lack of understanding of one's career and subjects
- Career indecision and career change
- Concerns regarding results and its influence on university admission

Career Decision and Subject Selection Support

- 1:1 customized Career University Admission Program (every Tuesday, Thursday)
- Provide Psychological test result to students and parents
- Teacher education reinforcement (homeroom teacher-centered student counseling)
- Intensive personal counseling for students who are undecided about their career. (After first subject selection survey, for about 2 weeks)
- Distribute the guide books
- Study Plan (student:parents:teacher) ⇒ enrollment

※ non-responders: in the first 2018 school year 19% ⇒ in the 2019 school year 8%
# Difficulties in Organizing and Operating a Student-choice Curriculum and its Solutions

## Parents
- Concerns regarding results and its influences on university admission
- Uncertainty about the feasibility of the credit system.
- Low trust in country’s efforts to proceed with policy processing

## Presentation, Consulting and Promotion
- Parents information session and consulting (occasional, night time)
- Monitoring in the School Governance Committee
- Promotion education activities on media (operation of credit system research School)

### Interview 1st grade student’s parent (2018. 6.)

“I think it is good for students to select subjects considering their own career and aptitude. But I am also afraid that there may be disadvantages in college admission..., I am also afraid that government can lead and proceed High School Credit System systematically and successfully.”

### Interview 2nd grade student’s Parent (2019.9.)

My son said “I chose subjects myself so I study hard with passion and am happy in classes, too. Like a university student, he studies further and inquiry too. Before he usually buy reference books only, nowadays he begins to ask for buying various kinds of books related to further studies or inquiry.”
Difficulties in Organizing and Operating a Student-choice Curriculum and its Solutions

Facilities

- Increase of classrooms available due to the decrease in class numbers but still a lack of lab, specialized subject rooms etc.
- Lockers need to be provided
- Library and resting space for students during break or between classes
2018 Curriculum Operation Evaluation Results (students)

When you select subjects, which is the most important factor?

- Be related to my career or major in university: 83.7%
- Better for school evaluation: 3.3%
- Easy and low-stress subject: 5.4%
- Be helpful in my daily life: 4.3%
- My favorite teacher in charge: 1.1%
- And others: 2.2%

When you select subjects which is the most helpful?

- Guidance and counseling of Career teacher: 52.2%
- Guidance and counseling of Homeroom teacher: 14.1%
- Guidance and counseling of subject teacher: 3.3%
- 1:1 customized Counseling Career Extra-curricular Program: 6.5%
- Materials provided by the school: 19.6%
- And others: 4.3%
2018 Curriculum Operations Evaluation Results (teachers)

As a high school credit system research school, in which area is the largest growth?

- Curriculum capacity: 53.3%
- Career/university admission: 26.7%
- Class-assessment-school life records: 20.0%
- Other: 0%

To operate the high school credit system successfully, what kind of support do you think is most needed?

- Support Administrative work: 30.0%
- Decrease of class hours per week: 56.7%
- Limit the maximum number of subjects: 0%
- Curriculum-oriented reorganization: 13.3%
- Other: 0%
Suggestions on High School Credit System
The National Curriculum Standards for the High School Credit System

- The Credit System includes ‘Expand Student Choice’, ‘A system with quantitative and qualitative requirements’

- Key Implications in Operating The High School Credit System Research School

⇒ Possible to Expand Student Choice

(Student) difficulty in choosing a career, lack of understanding of electives, large variety of subjects

※ Electives(3years)
  - Grade 2: 20 out of 41 subjects
  - Grade 3 (not the subject of research)
    - Humanities Course: 7 subjects out of 37 subjects
    - Natural Course: 4 out of 41 subjects

(Teacher) Burden of teaching multiple subjects and a heavy workload

(Credit/credit completion) failing in any subject requires a retake or substitution.

Refer to 1 credit (17 ⇒ 34 classes (USA, IBDP, Germany etc.))

- National Curriculum Standards which can meet the quantitative and qualitative requirements such as Course Evaluation, Course Completion Standards and Graduation Requirements etc. must be made.
Building Consensus among Teachers and Flexible Placement of Teachers

- Building consensus: Agree to cover multiple subjects per teacher
- It is one of the success factors in this small rural school. Because of consensus the high school credit system can be operated well.
- Flexible placement of teachers and various support: To be successful, the operation of the credit system, flexible placement of teachers, supporting building consensus, decrease of classes per teacher, support for multiple teachers, secure teachers for subjects for general education and decrease of teachers workload etc. are necessary.

Supporting Students' Career and Subjects Selection

- Career (related) subjects are mandatory and career counseling teachers should be secured.
- Establish the Credit System Support Center to support students systematically and comprehensively
- Connect the credit system and middle school curriculum (free semester)
Spatial Restructuring and Enlargement of School Facilities
• To secure classrooms for various kinds of subjects
• During breaks, students should use facilities, such as the library, fitness room, resting place etc.

Evaluation and University Admission ⇒ Focus on Successful Implementation of the High School Credit System

Improve Parental Understanding and Trust
• Increase the parents understanding of curriculum and build trust
• Guidance and advice for students’ career and university admission
• Strengthen parents’ participation in school education activities and communication
Teacher Kang, Heejin, Daejeong High School
Reference