The Relevance of Creativity and Innovation: Korean Curriculum Revision Case


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(Korea Institute for Curriculum and Evaluation)
What are skills requirements and the educational challenges of tomorrow?

Creativity and character can be the answer.
What are creativity and character building education policies in Korea?

- National Curriculum Revision
- ‘Excellent schools, Diverse curricula’
- STEAM initiative
- Autonomous and Advanced college admission
Précis of Creativity and Character building education

(1) **For all the students**, not for the talented only (Everybody counts.)

(2) Within curriculum, Among curricula, and With Creative activities

(3) **Improving satisfaction** of all the school community members-students, parents and teachers via quality curriculum

(4) Balanced and harmonious students’ life in school
Issues of Creativity and Character building education in Korea

(1) Direct or Indirect method of teaching creativity
(2) Education intended for creativity vs. Creative results of quality education
(3) Criteria of curriculum for creativity
(4) Relation between Creativity and Character
Issue 1. Direct or Indirect method of teaching creativity

Direct method
- teaching the thinking skill directly
- for example: Brainstorming, Brainwriting, Synetics, PMI(Plus, Minus, & Interest), Mind Mapping, Attribute listing, Idea checklist, etc.
Issue 1. Direct or Indirect method of teaching creativity

**Indirect method**
- teaching the subject contents, learning creative skill consequently
- the subject contents that comprises creative thinking skills recommended
- for example: writing essays imagining the characters or story(in Language)
Issue 2. Education intended for creativity vs. Creative results of quality education

Figure. The continuum of education in creativity side

- Sometimes education intended for creativity is not creative, and the results of quality education are usually creative.
### Issue 3. Criteria of curriculum for creativity

- In real world classroom, criteria of curriculum for creativity **can not be adapted exclusively.**

<table>
<thead>
<tr>
<th></th>
<th>creativity- passive method</th>
<th>creativity- active method</th>
</tr>
</thead>
<tbody>
<tr>
<td>viewpoint</td>
<td>traditional, subject-centered</td>
<td>cognition-centered</td>
</tr>
<tr>
<td>epistemology</td>
<td>behaviorism, technology</td>
<td>constructivism</td>
</tr>
<tr>
<td>objective</td>
<td>being skilled</td>
<td>knowing</td>
</tr>
<tr>
<td>selecting and organization of contents</td>
<td>-principle: independent skill and knowledge, from part to whole, emphasis on basic skill</td>
<td>-principle: integrated and interdisciplinary skill and knowledge, from whole to part, emphasis on big concepts</td>
</tr>
<tr>
<td></td>
<td>-material: textbook and workbook</td>
<td>-material: primary sources of data, manipulative materials</td>
</tr>
</tbody>
</table>
### Issue 3. Criteria of curriculum for creativity

<table>
<thead>
<tr>
<th></th>
<th>creativity- passive method</th>
<th>creativity- active method</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>selecting and organizing of contents</strong></td>
<td>-instruction strategy: descriptive, delivery of knowledge, monitoring and modifying the student's reaction</td>
<td>-instruction strategy: interactional, environments for students, monitoring student's viewpoints for their presenting their own</td>
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<td></td>
<td>-students activities: fixed curriculum</td>
<td>-students activities: more questions in studying</td>
</tr>
<tr>
<td></td>
<td>-space: fixed seat in classroom</td>
<td>-space: freely in and out of classroom</td>
</tr>
<tr>
<td></td>
<td>-time for creativity: separately during the instruction/less flexible</td>
<td>-time for creativity: during the instruction/on all the time/more flexible</td>
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</table>
### Issue 3. Criteria of curriculum for creativity

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Creativity - passive method</th>
<th>Creativity - active method</th>
</tr>
</thead>
<tbody>
<tr>
<td>- assessment for whether he/she remembers and recognizes what he/she studied</td>
<td>- effective adaptation and use of knowledge</td>
<td>- research, write, discuss, analyze verbally, collaborate</td>
</tr>
<tr>
<td>- paper-and-pencil, short answer correctness or not of the answers, rather than reasoning</td>
<td>- reasonable and improved answers, performances, elaboration of products</td>
<td>- rating criteria</td>
</tr>
<tr>
<td>- objective questions and standardized answers</td>
<td>- validity: relevance of questions to curriculum</td>
<td>- validity: possibility of adaptation to real world</td>
</tr>
</tbody>
</table>
Issue 4. Relation between Creativity and Character

Creative and character building education model in Korea

Subject matter knowledge
- Acquisition of knowledge

Education for creativity
- Extension of thinking
- Convergence of thinking
- Problem-solving skill
- Independence
- Openness
- Immersion
- Interest

Education for character building
- Trust (honesty, promise)
- Collaboration (consideration, respect)
- Responsibility (sense of responsibility, ownership)
Directions of the 2009 National Curriculum

Creativity and Character building is one of the main directions of the 2009 national curriculum revision.

<table>
<thead>
<tr>
<th>Basic Direction of the Curriculum</th>
<th>Creativity and Character Building</th>
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</thead>
<tbody>
<tr>
<td>Two Areas of the Curriculum</td>
<td>Subjects + Creative experiential activities</td>
</tr>
<tr>
<td>Organization of the Curriculum</td>
<td>Common curriculum: 9 Years (Elementary and Middle School) Elective curriculum: 3 Years (High School)</td>
</tr>
</tbody>
</table>
**Characteristics of the 2009 National curriculum Guidelines**

- **Subjects cluster, years cluster in national curriculum** for expansion of the autonomy of school curriculum
- **Emphasis on creative and character education**: Within curriculum (subjects and extracurriculum), Among curricula, and With Creative activities (within and out of the curriculum)
- **Emphasis on physical education**: Sports club activities

<table>
<thead>
<tr>
<th>Classification</th>
<th>Years 1 to 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Korean Language</td>
<td>442</td>
</tr>
<tr>
<td>Social Studies (including History)/Moral Education</td>
<td>510</td>
</tr>
<tr>
<td>Mathematics</td>
<td>374</td>
</tr>
<tr>
<td>Science/Technology &amp; Home Economics</td>
<td>646</td>
</tr>
<tr>
<td>Physical Education</td>
<td>272</td>
</tr>
<tr>
<td>Arts (Music/Fine Arts)</td>
<td>272</td>
</tr>
<tr>
<td>English</td>
<td>340</td>
</tr>
<tr>
<td>Elective Subjects</td>
<td>204</td>
</tr>
<tr>
<td>Creative Experiential Activities</td>
<td>306</td>
</tr>
</tbody>
</table>

**Total number of class hours**: 3,366

**Figure. The Organization and Time Allocation in 2009 Middle school curriculum**
Characteristics of the 2009 national subject curriculum

(1) Direct and indirect method for creativity adaption: especially ‘contents’ selection and ‘instruction and learning guidelines’

(2) Curriculum for quality education

(3) Achievement standards according to subject clusters and years clusters
Changes of local curriculums according to the 2009 curriculum

- The Role of the State, Regions, and Schools in the Curriculum in Korea

National curriculum
- the Ministry of Education, Science and Technology

Organization and implementation guidelines
- Local Education Administration

School-based curriculum
- Schools

17 Metropolitan and Provincial Offices

11,360 schools and 8,538 kindergartens
Changes of local curriculums according to the 2009 curriculum

- Expansion of supporting school curriculums, for example, curriculum consulting system

Figure. School curriculum consulting system in local administration
Changes of school-level curriculums
-Extent that the policies become embedded within the schools

(1) The policies spread nationwide.
(2) Almost every students are influenced by the national curriculum for creativity and character building education.
(3) But not all teachers
Changes of school-level curriculums
- Characteristics of school curriculum in 2009 curriculum era

Changes due to many national policies- the 2009 National Curriculum Revision, excellent schools award policy-‘Excellent schools, diverse curricula’, integrative education for creativity-‘STEAM initiative’, and especially ‘Autonomous and Advanced college admission’

(1) More activities within curriculums and after school programs
(2) More participants for after school programs
(3) More career education programs in Secondary schools
Barriers and stakeholders

Barriers to change
- School subject curriculum innovation (quality curriculum): more changes are needed
- Non creative teachers/researchers
- Some Teachers’ Resistance to change

Positive Stakeholders
- Innovative principals
- Creative and devoted teachers
- Teachers’ expertise, for example, master teachers
Testing systems change in 2009 curriculum era

1. Achievement Assessment within schools

The types of assessment tools and the grading methodology are tied to creative and character building education expansion polices. **Assessment based on constructed-response items and performance tasks** will be expanded to assess problem-solving ability and critical thinking while performance assessment takes into account the process and result of students’ performance in classrooms.

The Ministry intends to improve the grading system. **KICE provides content standards and samples of performance level descriptions** to support achievement assessment by teachers.
Testing systems change in 2009 curriculum era

2. Examples of curricular accountability: National Assessment of Educational achievement

The National Assessment of Educational Achievement (NAEA) is conducted annually as a tool for quality management of school education achievements at the national level. Launched in 2000 as a sampling test, and in 2008, the NAEA was changed from a sampling test to a general test evaluating all the students in order to establish and reinforce the “support system for the improvement of basic academic ability.”
National Assessment of Educational Achievement

<table>
<thead>
<tr>
<th>Table</th>
<th>Subjects in the National Assessment of Educational Achievement</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Overall Test</td>
</tr>
<tr>
<td></td>
<td>Sampling Test</td>
</tr>
<tr>
<td>Elementary School (Grade 6)</td>
<td>Korean Language, Mathematics, English</td>
</tr>
<tr>
<td></td>
<td>Social Studies, Science</td>
</tr>
<tr>
<td>Middle School (Year 3)</td>
<td>Korean Language, Mathematics, English, Social Studies, Science</td>
</tr>
<tr>
<td>High School (Year 2)</td>
<td>Korean Language, Mathematics, English</td>
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</tbody>
</table>

**Figure**: Assessment Model for the NAEA
Challenging and exploiting local culture and traditions

The Ministry **support model schools and study groups** for creativity / character education. It runs local creativity / character education for effective support, including training programs and consulting services, as part of nationwide creativity / character education campaign, along with forums to build educators’ capabilities and raise their awareness.

The Ministry and institutions provide and help sharing information via internet for effective dissemination. They are Creativity/character education net(www.crezone.net), National Curriculum Information Center(www.ncic.go.kr), Basic academic skills Improvement site Kucu(www.basics.re.kr).
Thank you!