

2021 Education in Korea



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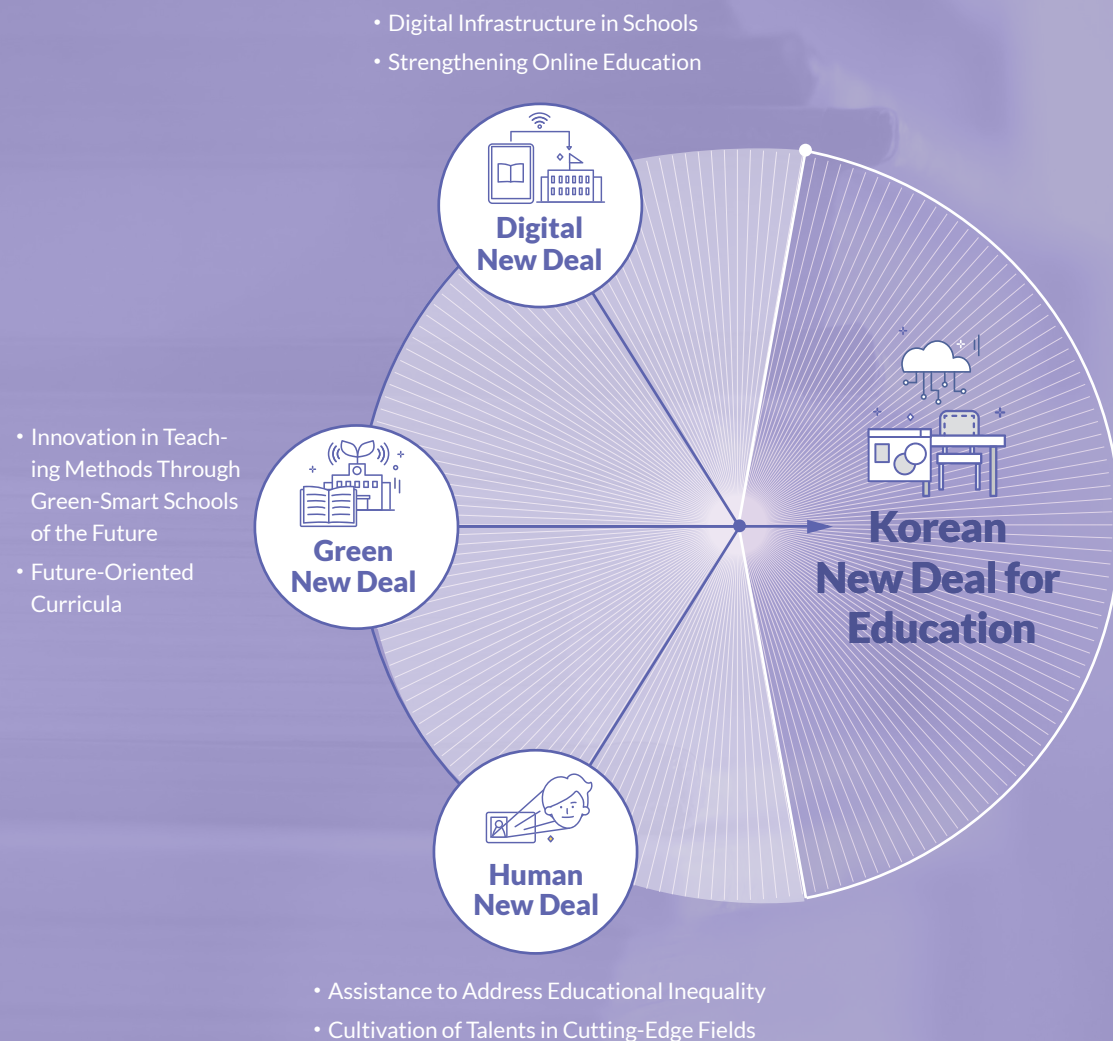
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“The Korean New Deal for Education : Turning Crisis into Opportunity”

Korea created rich cultural and intellectual heritage by inventing its own writing system and the world’s first printing technique over the course of its five-thousand-year-long history. What’s been behind Korea’s development over the past hundreds of years are Korean people who have always been passionate about education. In a country with virtually no natural resources, education was the driving force behind its rapid economic growth and democratization. As a result, Korea is now one of the world’s most powerful countries, boasting a population of 50 million and \$20,000 national income per capita. In 2010, Korea joined the OECD Development Assistance Committee (DAC), becoming a donor despite once being a recipient country.

Even in the midst of the unprecedented pandemic, Korea’s education showed much resilience by establishing infrastructure for distance learning in a short period of time and converting classes to distance learning, as well as managing in-person classes in a flexible manner. The Korean education showed its power to overcome the challenge of dealing with the COVID-19 pandemic by successfully administering the national university entrance exam, which was taken by 430,000 people around the country. Not only that, Korea implemented new methods of teaching and school operation, thereby enhancing the expertise of teachers.

In the post-COVID-19 era, Korea is turning crisis into opportunity to lead the “great transformation for the future of education.” Schools are being equipped with digital infrastructure to turn into “Green Smart Schools of the Future” with innovative teaching methods and future-oriented curricula. Educational inequality is addressed so that all people can make full use of their ability and talents cultivated in cutting-edge fields. Korea’s education is making another leap based on “inclusion” and “innovation.”

2021 Education in Korea

1

Overview of Korean Education

1. Korea's Education, The Driving Force of
National Development

1

Korea's Education, The Driving Force of National Development

Korea has undergone tremendous development over the last 50 years. Korea's education has been the driving force for the country's rapid growth as it has provided excellent human resources that quickly learned advanced technology and developed independent techniques. Presently, as Korean students show outstanding performance in the OECD Programme for International Student Assessment, Korea's education is grabbing global attention from the international community as a successful model. What led education in Korea to be successful includes Korean people's high educational expectations, government's consistent investment in education, government-driven education policies, state-level development of human resources, and high expertise and passionate devotion of teachers.

Until the
19th
Century

Pre-Modern Education

Korea's pre-modern education focused on ethics based on Confucianism and Buddhism, mainly for fostering the moral character of students. In the 19th century, modern private schools were first founded by missionaries from the West and Korean independence activists. Korean leaders tried to set up a modern nation-state through an overhauling movement of education around the country. Overall, education mattered greatly in light of the Confucian tradition in Korea, where the importance of learning was emphasized.

1945-
1960

The Republic of Korea and an Institutionalized Education System

The Korean education system became institutionalized following Korea's liberation from the 35-year-long Japanese occupation in 1945. Laws on education were enacted to establish the 6-3-3-4 single ladder system (i.e. six years in elementary school, three years each in middle school and high school, and four years in university) while primary education was made compulsory, facilitating quantitative growth in education. During the Korean War, education played a pivotal role in national recovery and overcoming the crisis.

1960-
1980

Dramatic Economic Growth and Quantitative Educational Expansion

Efforts were made in education for rapid quantitative growth to foster talents required for industrial development. In the 1960s, the number of students, teachers and educational facilities increased dramatically. The Korean government expanded the opportunity for secondary education and the capacity of higher school education following the augmenting demand of industries as well as making engineering colleges specialized. As a positive factor that contributed to national development, education became a legitimate means of self-realization and improving social status for individuals.

1980-
1990

Qualitative Educational Improvement

The 1980s was a period of qualitative improvement and universalization of education. Based on its policy for innovation in education, the Korean government put emphasis on fostering sound citizens and the Constitution of the Republic of Korea guaranteed the promotion of lifelong education. Educational tax was introduced for educational innovation, accompanied by improvements to curricula and the educational environment as well as training for teachers. As higher education became attainable to the masses, graduates of secondary and higher education became the two prominent social drivers of human resources development.

1990-
present

Education Preparing for the Future of Society

With the acceleration of globalization and international exchanges, the Korean government reinforced democratic citizenship education and international education to respond to rapid social changes. The rights of students, parents and teachers were stressed while leaning towards decentralization, autonomy and democratization of education. The Korean government started to ensure basic learning abilities in early stages for equality in education and expanded the accessibility to lifelong education. Most recently, Korea is undergoing a great transformation for the future of education in accordance with the demographic changes and the advent of Industry 4.0.

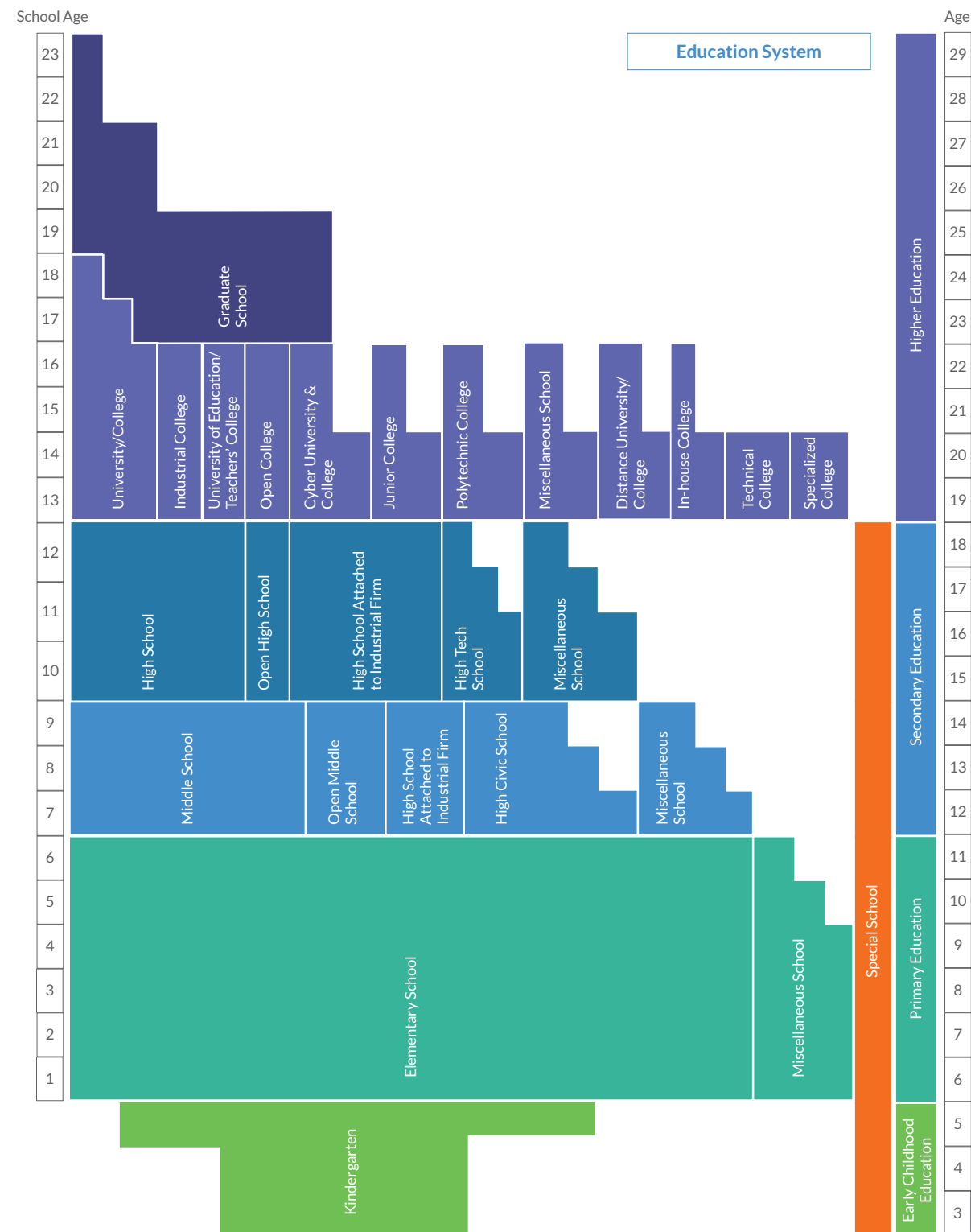
— Education – One of the Substantial Governmental Expenditures

The Korean government's spending on education has stood at around 14% of its total budget over the past decade, amounting to one of its key investments of all sectors. The size of its investment in education is not smaller than major developed countries and 20.27% of its internal tax is spent on education. Local education subsidies, which are allocated to local offices of education, play a pivotal role in covering the maintenance costs for school facilities in addition to the labor costs of elementary, middle and high school teachers.

— Educational Autonomy of Self-Regulated Schools

Korea's educational administration has a dual structure with the Ministry of Education (MOE) of the central government and local governments' offices of education. School education policies are taken control of by the Ministry of Education at the national level and by 17 local offices of education at the local level. Local self-government of education was guaranteed by law in 1991, and the system for the direct election of the superintendent of education was introduced in 2006. The rights and responsibilities associated with school education are being entrusted and transferred from the center government to local offices and schools. Currently, it is recommended for each school to make decisions on what and how to teach. At the same time, more weight is put on each school's responsibilities through the school's open data system as well as faculty and school evaluations, following the expansion of its autonomy.

Part 1. An Overview of Korean Education





2021 Education in Korea

Education in Korea Today

1. Major Policy Issues for Each Stage of Life
2. Overcoming COVID-19 and Korean Education

1

Major Policy Issues for Each Stage of Life

1

Early Childhood Education Expansion of Government's Responsibilities

The Korean government implements policy to fully support early childhood education to guarantee equal educational opportunity for all children. Specifically, it lessens the burden of parents and expands opportunities of early childhood education through establishing more public kindergartens and funding the “Nuri Curriculum,” the common nationwide curriculum for children of three to five years of age.

In addition, the government strives to provide all preschoolers with quality early childhood education by reinforcing the public nature of kindergartens through improving the education system, including legal arrangements for guaranteeing preschoolers' rights to education, enhancement of services offered by public kindergartens, expansion of parents' participation, and introduction of the national accounting management system (K-Edufine) for transparent accounting of private kindergartens.



2

Secondary Education Preparation for Schools of the Future

Schools, teachers and curricula need new roles that fall in line with the rapidly changing society. The Korean government is pursuing the transition to “Green Smart Schools of the Future” based on revisions to the school curriculum aiming at tailored education, enhanced school autonomy, and innovative teaching methods as well as renovating and remodeling deteriorated school facilities to fit the changes in education. It is also preparing for the implementation of a credit system for high schools starting in 2025, revision of the teacher training system, and expansion of AI education.

Moreover, National Education Committee composed of various educational stakeholders, including students and parents, will be launched in July 2022. A social consensus to be derived from this committee will be a cornerstone for presenting visions of future education as well as for establishing and carrying forward a medium to long-term plan for national development in education.



3

Higher Education Creating an Ecosystem for Sharing and Cooperation

Korean universities are moving beyond competition toward cooperation and shared prosperity by creating new environments that foster talents for the future. The “Digital New Technology Talent Development and Innovation Sharing University” project was launched for sharing of faculties, facilities, technologies and curricula by a number of universities. Universities are also focusing on nurturing talents in cutting-edge fields, such as AI, and establishing local innovative platforms for reinforced cooperation between universities and local governments. As the center for fostering creative and multi-disciplinary talents, the central government is encouraging universities to support the programs that provide tailored education for various types of consumers.



4

Vocational Education Promoting the “Job First, University Later”

The government has established an employment support system so that students can get a job related to their major after receiving vocational education. The Central Employment Support Center finds decent job vacancies for students and share information with the Employment Support Center of the Office of Education. Schools have an employment support manager who guides students to find jobs at companies that match their aspiration and specialization. The recent “Job First, University Later” initiative helps students get a job at an earlier age and also allows them to pursue higher education whenever they want after getting a job in order to advance their competency. Other support includes expansion of the college curriculum for working students and tuition assistance to help them reach their career goals. In addition, vocational high schools are due for curricular reorganization to prepare for new industrial fields.



5

Lifelong Education Establishment of a Government-wide Online Learning System

For sustainable growth of lifelong education, the government is strengthening the association among universities, lifelong education and vocational training as well as establishing a government-wide online learning system. It expands lifelong education to include new technologies to respond to the changes in industrial structure and developing policies to meet the demand for education in each stage of life. Cutting-edge technologies, such as big data and AI, are applied to the lifelong education platform to allow the government to track the records of learners and discover various ways to utilize the data. In the long term, the government aims at constructing and expanding a nationwide system to allow individuals to compare and acknowledge the results of their learning.

Since 2018, the government has supported the underprivileged – such as low income adults – by providing lifelong education vouchers that can be used for lifelong education courses. The scope of lifelong education vouchers increases every year as the number of institutions that accept the vouchers increase, thereby improving user convenience. In addition, the amendment of the Lifelong Education Act (December 2021) has allowed all citizens to receive lifelong education vouchers, whereas the overall support has also been expanded by allowing those who excel in lifelong learning to get additional assistance.

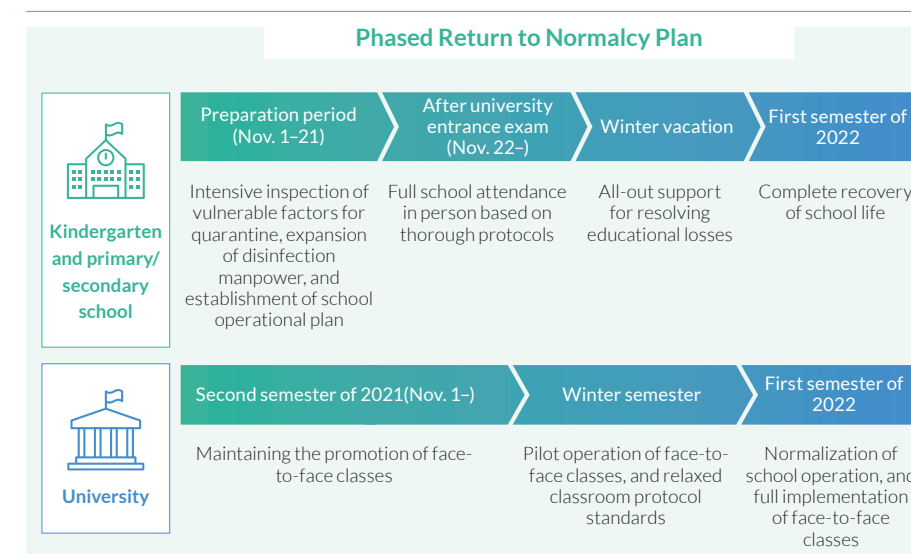


2

Overcoming COVID-19 and Korean Education

1) Gradual Return to School

During the COVID-19 pandemic, Korea pursued policies that prioritize the return to normalcy for ordinary school life. The first step was to expand student attendance and face-to-face activities. The average attendance rate, which stayed around 50% in 2020, greatly increased in 2021 to 73.1% in the first semester and 86.7% in the second semester. The government plans to announce the “2022 Academic Operation Plan for the First Semester” to promote a complete recovery of school life in 2022. This measure was taken according to the judgment by infectious disease experts that schools are a relatively safe space from the risk of infection, considering the history of confirmed cases and routes of in-school infections. A phased return to normalcy is in progress based on the strict compliance of schools with COVID-19 protocols, preemptive COVID-19 vaccination by education practitioners, and the effort of the Ministry of Education to support flexible school operation.



A. Preparing for a Phased Return to Normalcy

In January 2021, the Ministry of Education prepared the “Curriculum Operation Plan 2021” to help schools operate flexibly by regions within density limits in connection with social distancing levels. In particular, children attending kindergartens, first and second graders in elementary schools, and students with disabilities were exempted from complying with density limits. The definition of “small school” was also relaxed (from schools with less than 300 students in 2020 to those with less than 400 students and less than 25 students per class in 2021).

Afterwards, the “Step-by-Step Implementation Plan for Full Attendance of Kindergarten, and Primary/Secondary School for the Second Semester” (June 20) and “Direction of School Operations for the Second Semester” (August 9) were prepared to preemptively expand school attendance for the recovery of emotional and psychological educational losses of students due to prolonged distance learning. Around the start of the second semester, up to 60,000 quarantine personnel were employed to conduct intensive quarantine for four weeks, reducing the workload of schools and offices of education so that they could focus on the expansion of in-

person school attendance. After such preparation, schools have expanded students' attendance starting from the second week of September. All students attended school in person at Level 3 Social Distancing, whereas two-thirds of students attended school (full attendance in small schools or schools of rural and fishing villages) at Level 4 Social Distancing. Such preemptive measures for expanding school attendance led to the average attendance days of 82.1% in kindergartens and elementary/middle/high schools. Starting on November 1, 2021, the phased return to normalcy was pursued nationwide as well as in the field of education: the full attendance of students of kindergartens and elementary/middle/high schools began on November 22 after a three-week preparation period (depending on regional and school infection status, at least 2/3 can go to school). Therefore, as of November 29, the national average school attendance rate rose to 90.3%.

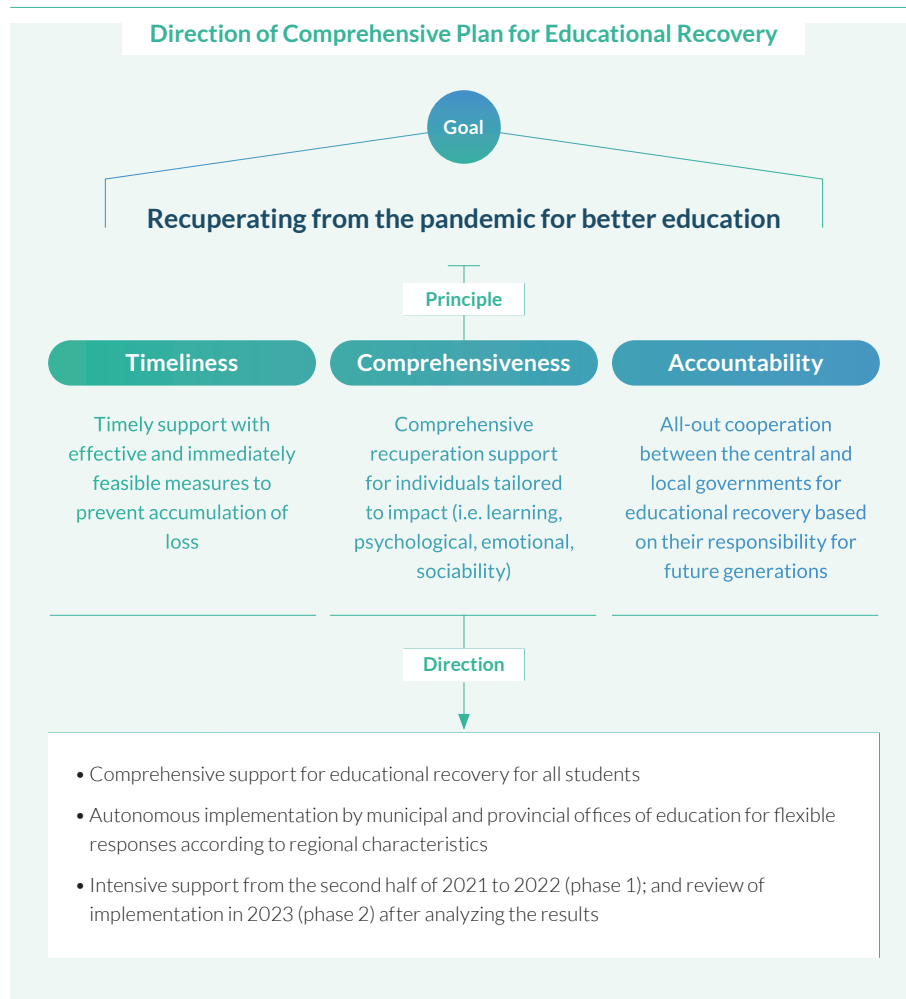
B. Priority Access to COVID-19 Vaccination for Teachers, School Staff and Students

Teachers and school staff were on the priority list for COVID-19 vaccination, which began with special education teachers and school nurses starting on the first week of April 2021. As of September 17, the vaccination rate for education and childcare workers (of kindergartens, elementary/middle/high schools, and daycare centers) was 94.8%. As for children and teenagers, 86.6% of those of 16–17 years of age (908,000) received their first dose of vaccination, and 67.9%, of 12–15 years of age (1.86 million) received their first dose of vaccination as of December 31.

2) Educational, Social and Psychological Recovery

The prolonged pandemic is having a negative impact on students' learning, psychology, and sociability. The scholastic achievement evaluation conducted in 2020 shows that the academic achievement of students decreased compared to the previous year, and they showed lower levels of satisfaction with school life, confidence, values, interest, and motivation to learn, which are factors that impact academic performance. In addition, some students suffered mental health problems, such as stress and anxiety, due to school closure. They complained about difficulties in making friends and adjusting to school life because of the reduced school attendance, raising concerns about emotional deficiency and deterioration of social skills. These negative impacts are more evident in the vulnerable group. To respond, the Korean government prepared the “Comprehensive Plan for Recovery of Education” in July 2021 to provide timely and comprehensive support for educational recuperation for all students. The central government and local governments are working in cooperation as highlighted by the investment of KRW 800 billion by the Ministry of Education, which was complemented by significant amounts of funding mobilized by provincial offices of education within the means of their own budget from the second half of 2021 to 2022.





A. Preparation for Supplementing Learning Losses

The Korean government has conducted comprehensive tests on all students' losses of learning, psychology, emotion and health, and is associating the results with various recovery programs. When students need or want supplement learning programs, they can benefit from the "comprehensive supplement program" customized for small groups of three to five students led by after-school or vacation class teachers.

At the same time, if high school students face difficulty in learning due to their learning loss, they can participate in one-on-one customized "learning consultation" provided by head teachers.

In addition, services for students in need will be expanded in schools that operate classes jointly taught by two teachers instead of one (from 92 to 500 schools) for better advancement of students' achievements, schools that have set up teams to help students having difficulty with learning caused by complex factors (from 5,193 to 6,000 schools), and learning clinics operated by the offices of education to provide consultations and assist those who lag behind in reading and math.

B. Supporting Psychological and Emotional Recovery of Vulnerable Groups

To help students recover from psychological and emotional losses, the government linked Wee Classes in schools, Wee Centers of the local offices of education, and external counseling institutions to provide free counseling and outreach services for the vulnerable who need psychological and emotional treatment.

Moreover, the government assists students to recover their sociability and physical health by reinforcing student activities via student clubs and student-teacher companion programs, and engage in more active physical activities at school sports centers. Tailored assistance will also be available for preschoolers, vocational school students, and other types of vulnerable students. Preparing for the expansion of school attendance in the second semester and possible risk of other epidemics, schools are increasingly being equipped with additional classrooms and makeshift modular classrooms to reduce class size and density.



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Great Transformation for the Future of Education

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1

Reformation of Schools for Supporting Growth of Individual Students

Schools nowadays are requested to transform itself into a new paradigm, moving beyond the traditional classroom environment that operates on face-to-face learning. In June 2021, the Ministry of Education launched the Transformation for the Future of Education Committee led by the Minister of Education to unearth tasks for innovation of education preparing for the future. The tasks include the convergence of online and offline education tailored to the capacity building of each individual student, innovative learning and teacher training, and improvement of institutions for more inclusive and sustainable education. With such strong momentum, Korea is now approaching closer than ever to the future landscape of education.

1) Career-Searching Education for Supporting Students' Growth

A. Consensus-based Revision of Curricula

The national curriculum is the basic design of education that presents the common and general principles of elementary and secondary education. They support desirable growth of students through high quality school education. So far, the Korean government has constantly revised the national curricula responding to the internal and external changes of the educational field. Now, the government is preparing new curricula centering around the transformation for the future of education. New curricula aim at producing inclusive and creative leaders so they provide education for boosting capacity for responding the future changes, including the education of ecological transformation, democratic citizenship, AI and digital knowledge. What is remarkable is that the development of curricula is based on not only opinions of

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experts but also public consensus. This process enhances the public understanding and interest on future education, which is the catalyst for the educational paradigm shift. After the revised curricula are decided and notified at the end of 2022, they will be applied to elementary schools starting in 2024, and to middle and high schools in 2025.

B. Operation of the Free Semester System for Middle Schools

The free semester system allows students to develop their talents during one or two semesters in middle school by participating in various programs. During their Free Semester, students can be freed from knowledge-focused competitive environment and engage in process-focused participatory classes. The government began its implementation in 2016 in all middle schools, and in 2018, allowed schools to have the option of implementing a year-long program for first graders of middle school. The Free Semester system aims to build students' creativity, character, and core competencies for the future.



C. Implementation of the Credit System for High Schools

High schools are introducing the credit system to provide students with opportunities to take a variety of courses matching their talents and future careers. For courses that are difficult to open at one school, neighboring schools collaborate in providing a joint course to ensure a wider choice of subjects. In particular, for students who live in hard-to-reach areas to take various courses, a platform has been established to provide interactive online courses. Students of small schools located on islands and in rural, mountainous, and fishing villages can take online courses they want via online, which means the credit system is available in remote regions where access to education is limited.

Under the high school credit system, students can choose courses that match their abilities and career paths, and when they complete the courses, they receive credits with which they can graduate.

As of 2021, 60% of all high schools are implementing the pilot operation of the credit system. Schools are undergoing changes, such as diversified subjects related to students' career paths, smaller classes, customized education for individual students, and classrooms that fit the credit system. By 2025, all schools will introduce the high school credit system, which will be the foundation for students to develop into self-regulated individuals.

D. Reinforced School-Village Education Communities

As there is a greater social demand for advancing the educational strength of each region based on the cooperation of schools, villages and local communities, the development of future models for innovative schools and innovative educational zones that operate autonomously by each province and city is promoted. Based on the accumulated success of innovative schools whose goal is to innovate school operation and curricula with the participation and cooperation of education community, the future models for innovative schools, such as a village-incorporated model, are being developed in line with specific regional contexts. Starting in 2020, sustainable cooperation systems are constructed in each region and future education zones have been designated to create special cooperative project models matching local characteristics to support the establishment of local education ecosystems.



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E. Emphasis on Arts and Physical Education

The Korean government implemented mid- to long-term policies to encourage student participation in arts education. Students can select an arts activity of their choice, ranging from orchestra, drama, musicals, fine art, traditional percussion music and cinematography, based on its "one art per one student" policy. The government collaborated with the related agencies to link the local art resources with the school curriculum. For example, students can download an app connecting local art resources and external human resources (i.e. artists, art lecturers, volunteers).

To offer quality physical education, the government is pursuing diverse policies for the "one sport for one student" purpose by offering remote PE classes, survival swimming classes for elementary school students, expanding sports activities for female students, and offering career counseling for physical education majors. It also supports student-led sports activities, including school sports clubs, leagues and competitions. For student athletes who have to train themselves and study at the same time, the government offers e-school to guarantee their right to learn by providing them with compensatory learning opportunities for building basic academic skills.

2) Digital-based Educational Innovation

A. Learner-centered Digital Education Ecosystem

To create an education ecosystem powered by digital technology, the Ministry of Education developed digital textbooks and software-engineering education courses. Digital textbooks have been developed and distributed since 2007. Currently, there are 134 kinds, including social studies, science and English for elementary school students (grades 3 to 6) and middle school students (grades 1 to 3) as well as English for high school students. The Korean government has reinforced its digital learning infrastructure by improving wireless network connections and providing teacher

training in digital pedagogy. The government plans to install GiGA WiFi networks in 380,000 classrooms of elementary, middle and high schools.

According to the 2015 Revised Curriculum, software education was introduced in some middle schools in 2018 and phased into all middle schools by 2020. Elementary schools began adopting the program in 2019, and currently all elementary school students (grades 5 to 6) nationwide enjoy software education. The required software education hours are more than 17 hours for elementary school students and more than 34 hours for middle school students. The software-engineering education courses are offered to high school students as elective subjects. (51 to 119 hours).

B. Transition to AI Education

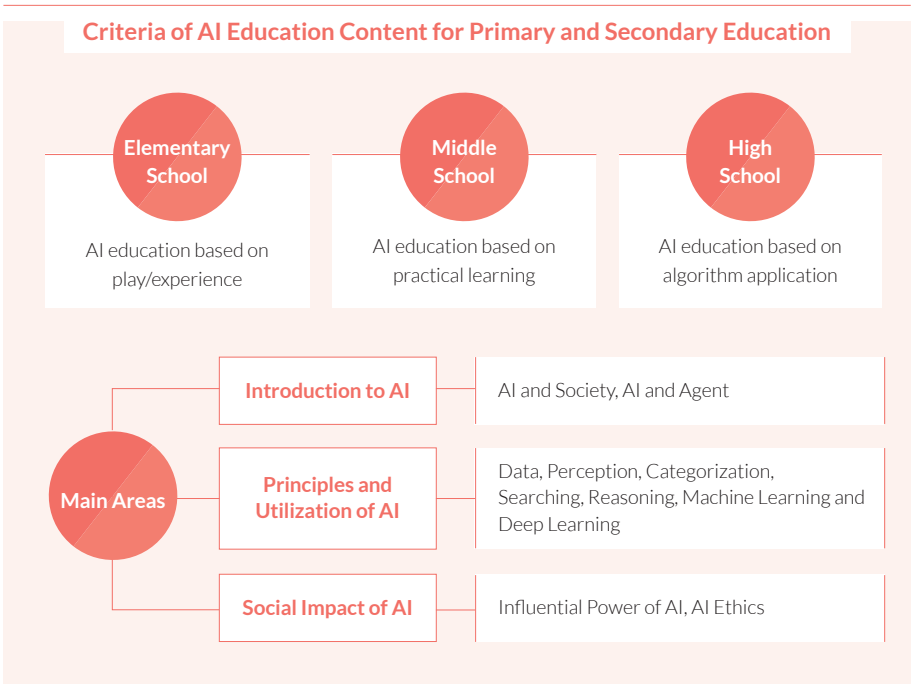
The Korean government offers kindergarteners more chances to experience AI for kindergarten students through plays and by introducing “AI education” in school curricula based on the 2022 Revised Curriculum. In 2021, the government developed the AI Education Content Criteria for each class of elementary, middle and high schools, promoting AI-related courses using supplementary teaching materials.

The first case of AI being used in school education is Math Explorers, a math support system for elementary school students. Since then, more and more AI technologies are being introduced in the field of education, such as an AI-based English speaking practice system for 3rd-6th grade students and Book Fruits, a reading support service that is used along with “One Book per Semester” initiative.

Teachers are being trained to be specialists in AI. Every year since September 2020, about 1,000 in-service teachers are selected to take the master’s degree course in graduate schools of education and turn into teachers specialized in AI convergence education.

Part 3. Great Transformation for the Future of Education

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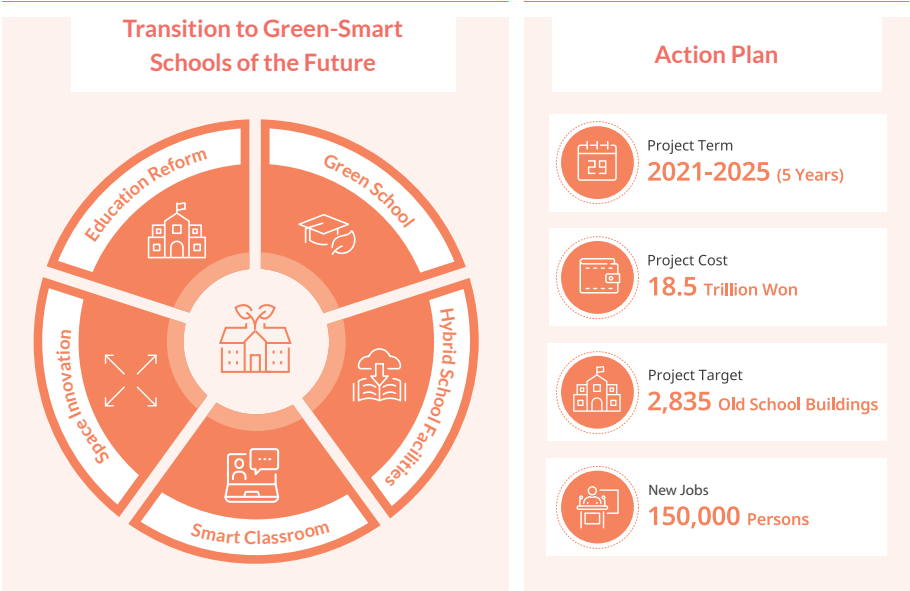
C. Building Green-Smart Schools of the Future

The Korean government has launched the Green Smart Schools of the Future Project to cultivate future leaders of the post-COVID-19 era and create future-oriented, eco-friendly school environments. As its first step, the government earmarked KRW 18.5 trillion for school remodeling. During the next five years, 2,835 buildings older than 40 years will be turned into new “smart” buildings, and the project will initiate its second phase in 2026, considering the increase of the number of deteriorated



Digital-based Collaborative Learning Creative and Convergent Space Small-sized Learning Space

buildings and financial conditions. The project is anticipated to create a total of 150,000 jobs and reduce 190,000t CO₂ of greenhouse gases every year. The ultimate goal is to create a ubiquitous environment in which learners can access a variety of learning experiences anytime, anywhere, as well as a low-carbon, eco-friendly learning environment based on sustainability.



D. Ecological Transformation Education for Carbon Neutrality

In 2021, the Korean government designated the ecological transformation education as one of the tasks to realize schools of the future and is supporting schools accordingly. Specifically, it is focusing on three areas: the reinforcement of the ecological transformation education for a sustainable society, the establishment of culture for the transition to carbon neutral society, and the preparation of protocols for responding to the Paris Agreement. As the 2022 Revised Curriculum reflects the ecological transformation education for sustainable future, the courses for student and teacher training related to ecology will be enhanced. Related government

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agencies and offices of education also cooperate to construct and support pilot schools focusing on carbon neutrality, eco-school (environmental experience center), and green schools, promoting experience-centered education environment. To respond to the global climate change, the government revised the Framework Act on Education to lay the legal foundation for strengthening environmental education, and is pursuing to amend the Environmental Education Promotion Act with relevant government agencies to revitalize environmental education in schools.



3) Future-responding Revision of Teacher Training

A. Changes to Teacher Training and Education System in New Environments

Teachers in Korea earn their teaching license by following a certain series of courses specified by law in designated institutions (national universities of education, colleges of education, university programs for teaching profession, and graduate schools of education). Public school teachers are employed after passing the teacher employment examination while private school teachers are selected through the selection procedures of each school. Teacher training serves as the cornerstone of the development of Korean education as it produces high quality teachers qualified by standard criteria. In line with the changing educational environment highlighted by distance learning, AI, big data, climate action, environmental response, and inclusive society, the Korean government is preparing a plan for an advanced teacher training system, aiming to improve teachers' adaptability, future confrontational ability and multi-disciplinary skills, as well as the continuous advancement of their expertise.

Moreover, starting in 2020, national colleges and universities of education are establishing future education centers to enhance the ability of distance teaching of prospective teachers, supporting the improvement of the curricula of teacher training institutions in their transition to future education.

B. Developing Teacher Competency and Expertise

Teachers in Korea develop their competency continuously as lifelong learners through job training and qualification training programs. On different stages of their life cycle (initial, developing, advanced, and mature stages), they undergo job training courses (face-to-face, non-face-to-face, and hybrid) to enhance competency in need, such as their expertise, understanding of students, and cooperation with local communities. For teachers with a certain experience in teaching, there is a system of qualification training to become a full-time teacher, head teacher, vice principal, and principal. Each school conducts annual peer assessments and teacher competency development evaluation based on satisfaction by students and parents to enhance teachers' competencies. The assessment and evaluation results provide teachers with feedback as well as chances for self-examination and customized training to attain their required competency. Those who earn good results are given a sabbatical to conduct research and further improve their expertise.

| Teacher Training in Korea | |
|---------------------------|--|
| Qualification Training | Training to be qualified for a certain teaching position(to be qualified as a principal, vice principal, head teacher, full-time teacher, etc.) |
| Job Training | Training to develop job competency(to develop competency in pedagogy, student guidance, AI, distance learning, student counseling, etc.) |
| Special Training | Training conducted in line with a special plan by the central or local government(sabbatical, graduate school courses, overseas study including short/long-term dispatch to overseas educational or research institutions) |

2 Reinforcement of the Government's Responsibility in Education

Korean education policies are dedicated to ensuring equal opportunity in education for all from early childhood to higher education. In 2021, the Korean government reinforced the educational safety net to narrow the achievement gap caused by COVID-19 and expanded the scope of tuition-free education from primary to upper secondary education by additionally incorporating high school education into its previous scope of coverage. It lessens the burden of education costs for each household through phased financial support on educational spending for each stage of life cycle, covering students in K-12 and higher education, as well as adult learners.

1) Reinforcing the Public Accountability of Education

A. Providing Quality Early Childhood Education and Childcare Services

Since 2018, the government has fully funded education for children aged three to five with the introduction of the so-called Nuri Curriculum. To ensure fairness in kindergarten admissions, the Ministry of Education launched the Kindergarten Admissions Management System ("Go First School") to make online application available. In 2020, all national, public and private kindergartens became enlisted in the Go First School system. Priority in enrollment is given to children from low-income families. To raise the admission rates in public kindergartens, the government has added at least 500 more classes annually, and is steadily improving the service by increasing after-class programs and the availability of shuttle buses. In addition, to strengthen accounting transparency, the Ministry of Education introduced the K-Edufine accounting system to all public and private childcare institutions in 2020.

B. All-day Childcare System – Childcare Service in Elementary Schools

As part of the government's efforts to reinforce accountability for childcare services, the Ministry of Education closely works with schools and local governments. The all-day childcare program, which began in 2018, reduced the child-caring burden for many dual-income families, and the government is expanding after-school childcare service, local government-school cooperation model (school care center), and local care centers (together-care centers, local childcare centers, and adolescents' after-school academies).

The after-school childcare service in elementary schools will expand to offer 3,500 classes by 2022. In 2021, the "school care center" project was launched based on the cooperation between local governments and schools, responding to the new demand for childcare.

Aside from school facilities, local resources, including small libraries, public facilities in apartment complexes, and youth training centers, are actively being used to expand the local childcare service. This measure addresses the increasing demand for the child-caring of elementary school students and provides students and parents with satisfactory all-day childcare system.



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C. Ensuring Basic Level of Education for All

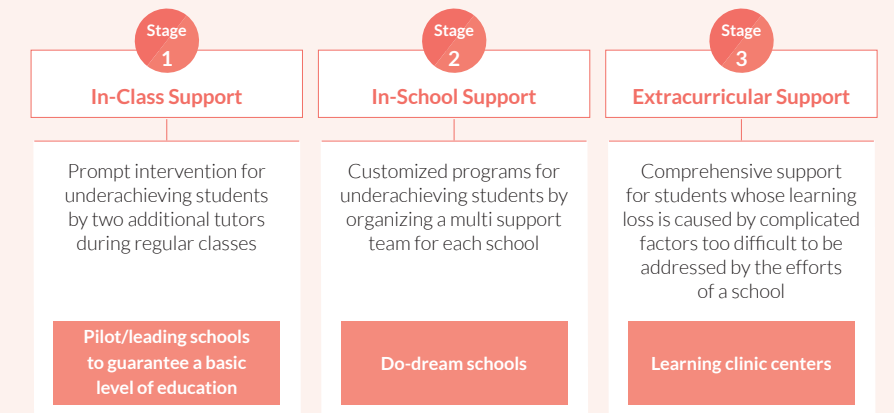
The Ministry of Education has established a tight safety net to ensure that all students achieve a basic level of education.

As one of its efforts to prevent learning loss and help students reach the minimum academic level, the Ministry of Education selected 42 schools in 2018 as model schools to share their best practices with other schools. The number of participating schools increased to 92 in 2021.

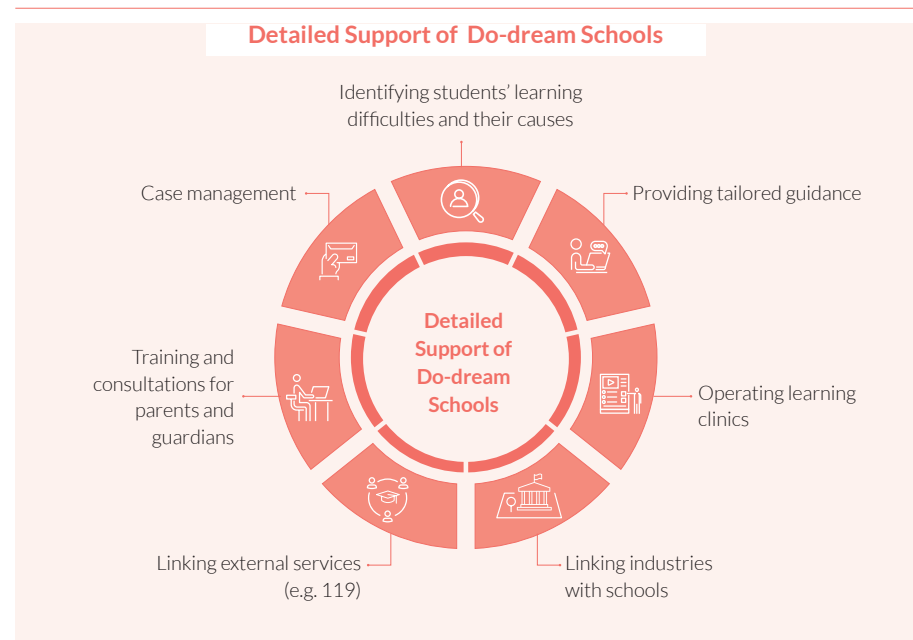
The government introduced the Do-dream School program to help students who, for a number of reasons, do not reach the basic academic level. The number of participating schools rose significantly from 2,720 in 2018 to 5,193 schools in 2021. A team composed of a classroom teacher, a special education teacher and a counselor provides customized support to those students who lag behind academically.

To help students who face difficulties that cannot be addressed at the school level, the government launched separate learning clinic centers. As of 2021, there are 140 learning clinic centers in operation. Also, to diagnose the cause of low performance and provide guidance on what a student should do both at school and home to make progress, the Ministry of Education introduced the Basic Academic Achievement

Three Stages of Safety Net for Guaranteeing Basic Level of Education



Diagnosis and Intervention System as well as the Basic Achievement Self Education (BASE) Camp web service, allowing students to study from home. By launching the National Basic Education Support Center in 2021, the government is reinforcing the linkage of the central and local governments with schools to assist underachieving students.



D. Tuition-Free Education for Elementary, Middle, and High Schools

Although high school education is not mandatory in Korea, 99.7% of middle school graduates enter high school, making secondary education virtually universal. The Korean government has introduced tuition-free high school education by supporting admission fee, tuition, school operation support fee, and textbook expenses to enhance the public nature of elementary, middle and high school education, and alleviate the burden of education expenses among households. Through tuition-free high school education, about KRW 4.8 million of school expenses is reduced for

three years per student. The measure was taken for the third graders of high schools in the second semester in 2019 and the tuition-free education was settled for all graders by 2021.

E. Establishment of Customized National Scholarship System

Starting in 2012, the Korean government introduced and implemented a national scholarship system for everybody who has the will and ability to pursue higher education. Based on this system, the government and universities work together to lessen students' burden of tuition. The government provides students with different amount of scholarship according to their household income levels, universities freeze or lower their tuitions or offer separate scholarship opportunities. Currently, 1.04 million students, almost half the total college students, are receiving national scholarship to pay for at least part of their tuitions.

Student loan was introduced in 2009 with an interest rate of 5.8%, which has been continuously lowered to reach 1.7% in 2021. College admission fees are gradually being reduced or abolished to alleviate the burden of tuition for students. Admission fees for national and public universities were totally abolished in 2018. As for private universities, admission fees will be abolished completely by 2022.

2) Educational Support for Disadvantaged Students

A. Promotion of equal opportunity school admission and lower educational costs for low-income families

To prevent disadvantaged students from being deprived of educational opportunities, the government not only provides support for their educational expenses, but also operates a special screening system to better serve their needs. As for the high school admission, the Social Integration Screening is applied to students from high schools in areas where students are allowed to choose their own schools, instead of their admission being determined by a lottery system, whereas the Equal

Opportunity Special Screening is tapped into at the higher education level for college admission. To reduce the college students' burden of educational and housing expenses, the government is expanding the national work-study scholarship program, and has launched government-funded dormitories known as "Happy Dormitories."

About 310,000 students from low-income households are provided with educational activity support, admission fees, tuition, and textbook expenses annually through educational benefits. Individual municipal and provincial offices of education are also striving to provide educational opportunities for low-income families by supporting after-school programs and building educational ICT infrastructure.

In addition, with the aim of supporting middle and high school students from low-income households showing academic potential, the Dream Ladder Scholarship Program is provided until they complete their higher education. In 2021, the government supported 750 high-performing students and 250 students with special talents from low-income households recommended by schools, as well as 200 students at risk of dropping out due to illness or disaster. These scholarships not only offer tuition, but also one-on-one learning guidance, and a chance to participate in customized career/major seeking counseling camp.

B. Customized Educational Support for Disadvantaged Students

In 2020, the Ministry of Education started distance learning in response to the COVID-19 pandemic. To support students with disabilities, it worked with local offices of education to set up the Online Classroom for Students with Disabilities Platform, and uploaded 10,917 pedagogical materials and learning content. Also in 2021, the government allocated a budget of KRW 8.5 billion for the Distance Learning Infrastructure for Students with Disabilities Program to support the expansion of its online platform, develop curriculum, and create more experience-focused and engaging activities.

International students are also eligible to receive customized education, including Korean language courses and mentoring, while students who defected from North Korea are offered more systematic counseling to cope with mental and emotional difficulties.

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| Support for Disadvantaged Students | | | |
|--|---|--|---|
| Students with Disabilities | Students from Multicultural Families | Students who Defected from North Korea | Students at Risk of Dropping Out |
| <ul style="list-style-type: none">Online course for students with disabilities (10,917 learning content uploaded)Distance learning for students with disabilities (platform, studio, content, etc.) | <ul style="list-style-type: none">Offering more Korean language courses (404 courses in 2021)Disseminating the Multicultural and Receptive Education Model (713 schools in 2021) | <ul style="list-style-type: none">1:1 mentoring (1,210 persons in 2021)Visiting professional counseling service (64 sessions for 25 students in 2021) | <ul style="list-style-type: none">Development of the School Dropout Prevention Plan (August 2020)Expansion of pilot projects for supporting the learning of children who are not receiving mandatory education or students who dropped out (1,399 registered learners in 2021) |

C. Support for Students at Risk of Dropping Out

The Ministry of Education is helping students who are at risk of discontinuing their education or those who have already done so with customized programs. For example, there is a dropout delay period for students at risk of dropping out. This allows students up to a seven-week term of delay so that they can make an informed decision about their path going forward. During this term, students are continuously counseled, and have a chance to participate in customized programs including career experiences, as well as arts, sports and cultural activities. When a student finally decides to drop out, that student's information is shared with the school, the local office of education, and the out-of-school youth support center to offer assistance to help continue learning even after they decide to discontinue compulsory education.

3

Cultivating Future Talent Through Autonomy and Innovation in Higher Education

The unprecedented COVID-19 pandemic is accelerating the transition of higher education to digital learning. The advancement of digital technology enables various resources, including excellent professors, lectures and facilities, to be widely shared, and breaks the boundaries between schools, universities, disciplines and regions. Responding to the rapidly changing society, universities are being reorganized to cultivate talents for newly emerging industries.

1) Innovation through University Cooperation

A. The “New Normal” School Operation and Distance Learning

Universities are incorporating distance learning as an opportunity to innovate their curricula. In 2021, the government abolished the cap on distance learning hours (20%) for universities which had been temporarily relaxed, and developed detailed guidelines for general universities to make online academic curricula available in 2022. Focusing on their strengths, universities are more actively sharing their curricula, expanding their credit exchange programs, and offering regional joint degrees.

They are also constructing high-quality management systems to raise the quality of distance learning. Universities operate distance education support centers to create and distribute distance learning content, while organizing and operating distance learning management committees made up of faculty, experts and students. Moreover, universities are improving the quality of distance learning through

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introducing a certification system, and providing digital devices to underprivileged students.

B. Ecosystem for Regional Growth of Higher Education Based on Sharing

Universities are increasingly becoming innovation hubs. Local universities are emerging as a new growth engine by setting up collaboration platforms with local governments, discovering prospective businesses, and fostering future leaders, while working closely with local companies, research institutions, schools, and offices of education. As of 2021, there are a total of four local innovation platforms, in which 71 universities and 206 local innovation institutions participate to cultivate talents and provide support students' employment and startup efforts.

Strengths of each university are combined in the form of shared curricula as part of shared education, and the so-called “regional shared universities” allow students to benefit from joint/multiple degree by connecting universities to share their specialties with one another. In addition, the Ministry of Education is temporarily imposing the “regulatory sandbox” initiative which relaxes regulations for startups and innovators to facilitate their business operation.

C. Supporting Autonomous Innovation of Universities

To address the rapidly decreasing school-age population and improve the quality of higher education, the government implements structural reform in universities since 2014. They include reduction in enrollment quota, adoption of a new university evaluation system, and the establishment of an institutional framework for reform.

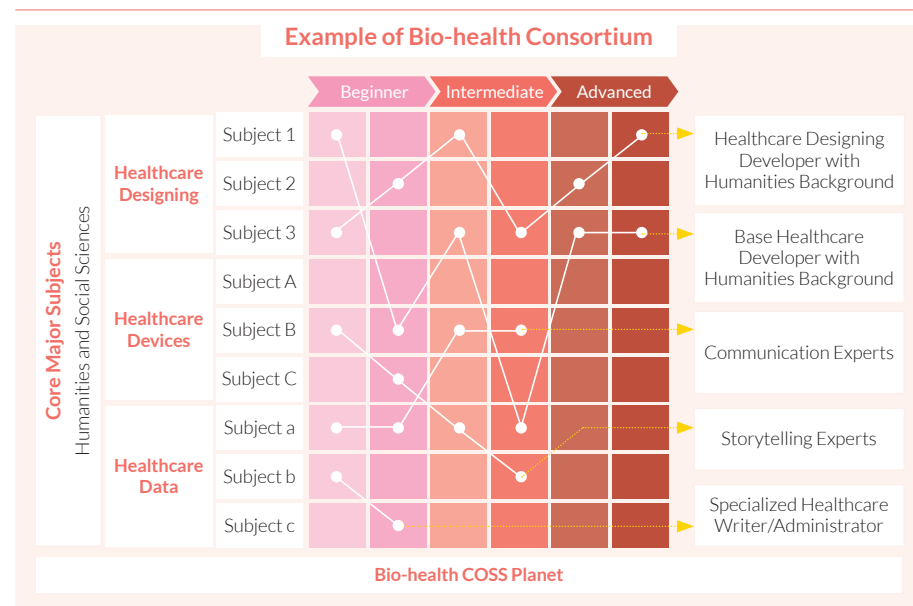
Starting in 2018, the Ministry of Education adopted a new university evaluation system to diagnose universities' capabilities in support of their autonomous development. As a result, over 60% of universities were selected and targeted for autonomous improvement, and the government funded them to cover project expenses following their mid- and long-term plans. At the same time, the Ministry of Education imposed regulations to reinforce the transparency of university operation.

2) Equipping Talent for Emerging Industries

A. Equipping University Students with Digital Skills

The Korean government implements the Innovation-sharing Universities for Cultivation of Leaders of New Digital Technology Project to construct a system of sharing and cooperation among universities capable of utilizing cutting-edge technologies in education to provide university students with opportunities to learn how to make use of new digital technologies. Universities that participate in the project share both human and material resources and collaborate with industries and research institutes to develop step-by-step curricula involving courses for beginners to advanced learners. Online content is open to the general public, ranging from university students not participating in the project to workers in general via various channels such as K-MOOC.

- Eight new technologies are selected on priority in 2021 (Artificial intelligence, big data, next-generation semiconductor, future-oriented cars, bio-health, realistic media, intelligent robotics, new energy industry) → Gradually expanding to more fields in 2023.



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B. Government Support in Advanced Technologies

The Ministry of Education focuses on equipping future leaders with master's or doctoral degrees in the fields of digital technologies through the Brain Korea 21 (BK21) initiative (currently in phase 4; 2020–2027). This program grants scholarships to graduate students participating in research activities, wages for new researchers, and expenses for the globalization of research, producing 19,000 researchers with a master's or doctoral degree each year.

| Phases of Brain Korea 21 | | | | |
|--------------------------|---|---|---|--|
| | Phase 1 (1999–2005) | Phase 2 (2006–2012) | BK21 Plus (2013–2020) | Phase 4 (Sep. 2020– Aug. 2027) |
| Total Project Expenses | KRW 1,3409 trillion | KRW 1,7588 trillion | KRW 2 trillion (approx.) | KRW 2,900 trillion |
| Support Scale | 438 project teams (72 universities) | 569 project teams (74 universities) | 550 project teams (73 universities) | 577 research teams (68 universities) |
| Participants Students | 12,000 (approx.) per year | 20,000 (approx.) per year | 30,000 (approx.) per year | 40,000 (approx.) per year |
| Participants Professors | 3,000 (approx.) | 7,000 (approx.) | 7,000 (approx.) | 8,000 (approx.) |

C. Cultivation of Highly Skilled Human Resources with Professional Skills

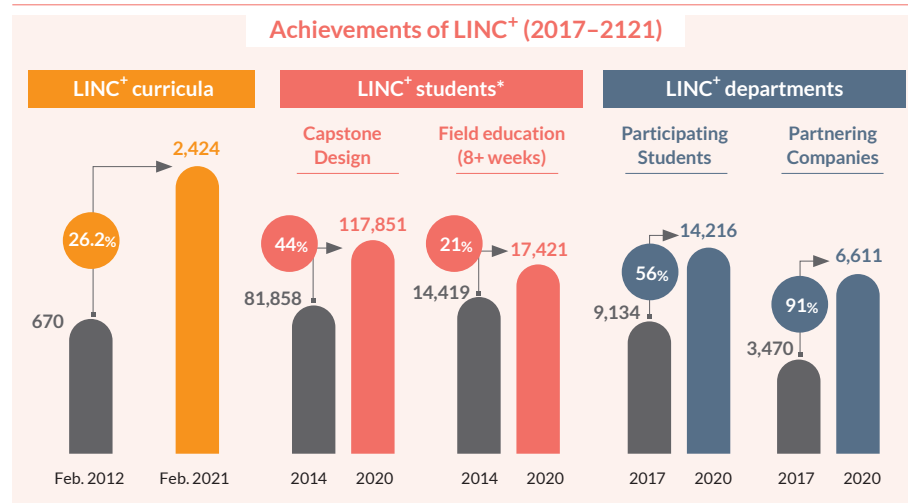
It's critical for colleges to cultivate high-skilled human resources with professional skills who can respond to the rapid technological changes caused by the shift in the industrial paradigm with the advent of the so-called Industry 4.0. The Korean government has introduced the model of Meister College to provide tailored job training via short-term courses to master's degree courses for the development of

professional skills. Starting in 2021, five Meister Colleges are in pilot operation in the fields of new industries. In March 2021, the Higher Education Act was revised to provide legal grounds for colleges to grant master's degree certificates in the fields requiring professional skills.

3) Industry–University Cooperation & Employment Support

A. Industry–University Cooperation

Industrial Education and Industry-University Cooperation Basic Plan (2019–2023) is being executed by the National Industry-University Cooperation Committee, which was founded in October 2018 with the participation of eight ministers and experts from industries, academia, and research institutes. The basic plan indicates a comprehensive policy for industry-university cooperation with four strategies, such as talent cultivation, technology transfer & commercialization, startups, and construction of the infrastructure for industry-university cooperation, in the form of twelve tasks.



* Field education, creative comprehensive design (Capstone Design), society-customized department, Industry-Coupled Problem/Project-Based Learning (IC-PBL) subjects, etc.

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Above all, the government fosters customized talents through supporting the curriculum that links industry and university, and hiring professionals of industry–university cooperation as faculty with the expansion of the Leaders in INdustry–university Cooperation (LINC) project since 2012. Starting in 2022, the government will further support the industry–university cooperation by promoting the third phase of LINC (LINC 3.0), which will be an advanced version of its first and second phases.

B. Building a Solid Base for Emerging Technologies

To maximize the potential benefit of research, the government supports the transfer of technologies from universities to industries, such as patents and innovative ideas. For example, the BRIDGE+ Project has focused on commercializing universities' creative assets since 2015, and it receives KRW 15 billion in funding annually. The number of yearly technology transfers has exceeded 1,000 and the number of project teams has increased to 24 by 2021. Most recently, the Ministry of Education supports the “technology packaging” program, which is a technology convergence project, under which universities collaborate on multiple technologies across industries to create innovative products and services.

C. Support for Employment and Startups

Starting in 2020, universities offer career development curricula and grant credits to students completing the program. In 2020, the Ministry of Education introduced the career experience credit system for universities, in which career experience activities are recognized as credits for one semester, and is also providing opportunities for disadvantaged students to work overseas. There is also the startup-friendly school system that provides a startup semester and leave of absence as well as an initial startup incubation space to tap into the infrastructure of school-based enterprises. Over KRW 20 billion of the University Startup Fund has been created to continuously invest in the initial stages of growth for university startups. In addition, scholarships are provided to young people who have plans to be employed or start a business or who are preparing to enter university after employment.

4

Reinforcement of Lifelong and Vocational Competency at Every Stage of Life

Korea is expanding the access to vocational education for those who wish to receive one, regardless of their socio-economic background. At the same time, the Korean government is building a lifelong learning system for all citizens to allow them to gain a convenient access to learning content anytime, anywhere, and to manage and utilize the learning results. Recently, in response to the declining population and technological changes, the need for linkage and cooperation among vocational education, vocational training, and lifelong education is increasing. Accordingly, the government is promoting policies to expand lifelong learning opportunities in promising fields such as new technologies and to increase the applicability of lifelong learning results to the world of work.

1) Innovation of Secondary Vocational Education and Employment of High School Graduates

A. Vocational Education & Educational Opportunities For All

Vocational education in Korea technically begins at the level of upper secondary education. The most common type of vocational high school is specialized vocational high school. There are also other types of high schools tailored to industrial demand (e.g. Meister high schools) and general high schools that provide vocational education which corresponds to what is taught at specialized vocational high schools. As of April 2021, 583 high schools, or about 24.54% of all high schools, are vocational high schools, and 16.86% of all high school students are receiving vocational education. Vocational high schools include a variety of departments reflecting various changes

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in industries, types of occupation, and the evolving needs of education consumers to offer an opportunity for all students who wish to study in vocational schools to pursue their own career paths via a student selection process that looks at students' talents and aptitudes, rather than their academic backgrounds.

B. Industry-Customized Curriculum

Vocational high schools offer programs in 17 subject areas including business management, finance, mechanics, agriculture, fishery and marine life, focusing on providing practical education and training opportunities to ensure that their students are job-ready after graduation. In particular, since 2016, departments have been reorganized in 100 schools every year, responding to changes in the industrial structure.

Starting in 2018, the existing curricula have been completely reorganized based on the National Competency Standards, which standardize knowledge, skills, attitudes, etc. required in industrial fields, to minimize mismatch between industrial and corporate sites and schools. The NCS-based curriculum is oriented toward "education to become enablers" rather than "knowledge-based education" to allow students to acquire the knowledge, skills, and attitudes necessary in an actual industrial settings based on hands-on training.



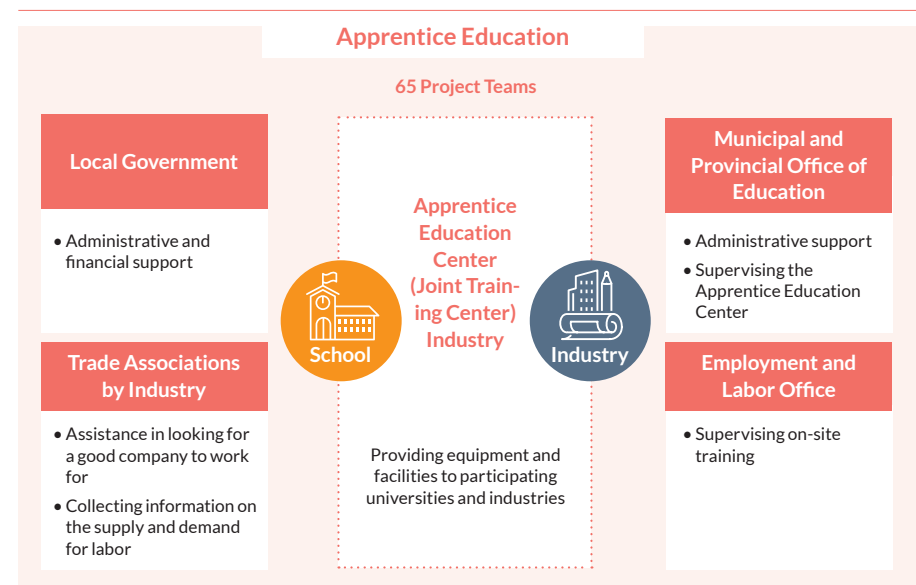
C. On-Site Training Prioritizing Learning and Safety

Vocational high schools provide on-site training opportunities to their students to develop practical on-the-job skills. A single course of on-site training generally takes about one to three months. Companies can be certified as leading sites for vocational

training if they qualify for certain safety and educational standards, and once they are certified, they are allowed to provide long-term training programs for students and the trainees can also gain an earlier hiring opportunity. The companies offering on-site training for vocational students are required to develop their programs jointly with their partner schools, which is guided by on-site instructors. The Ministry of Education, the Ministry of Labor, and the offices of education conduct joint inspections on the companies to ensure students to receive on-site training in a safe environment. Labor-related experts, such as certified labor attorneys, also participate in the inspection.

D. Apprentice Schools Allowing to Shuttle between School and Work Site

As a special type of school for on-site training, apprentice schools are being operated in Korea. Students learn while working based on a one to two-year course jointly designed by their school and the partner company. Students of apprentice schools receive highly practical education in the second or third year depending on the course, both in school and at work to acquire practical on-the-job skills.



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E. Developing Basic Skills Required at Workplaces

Helping students develop basic skills is important because with this foundation, they can continue to grow and succeed in the workplace. The Ministry of Education has developed a tool to diagnose and evaluate basic vocational skills in the form of an Internet-computer based test (ICBT) to evaluate competency. Questions include not only reading and listening, but also related to comprehensive competency test, such as watching a video showing a work setting and understanding the context to solve problems. First graders of vocational schools take the self-diagnosis evaluation while third graders take the basic vocational competency evaluation to check their strengths and weaknesses. In addition, various online content is provided to help students develop core basic vocational skills required for their work settings.

F. Meister High Schools

Meister high schools were first established in 2008 to produce highly-skilled workers fully equipped to meet industrial demands. Currently, 52 Meister high schools in operation out of the 54 selected. High schools are selected as a Meister high school by taking into account regional contexts and the prospects for industrial development, mainly in the fields that have high demand for high school graduates. Unlike specialized vocational high schools, Meister high schools are operated with strong autonomy and have a customized curriculum that is directly linked to industrial demand. In these schools, the proportion of specialized courses required to actually perform a job has been expanded to improve the relevance between students' majors



Meister High School (Electrical & Electronics)



Meister High School (Semiconductor)

and occupations. In particular, Meister high schools greatly contribute to revitalizing secondary vocational education by improving the quality of vocational education and providing excellent employment outcomes.

G. Employment Support and Continuous Competency Development

The Ministry of Education, provincial offices of education and schools offer diverse programs to support vocational high school students who wish to find a job right after graduation. For example, the central government and the Ministry of Education collaborate with schools and local offices of education in assigning teachers and employment assistance officers to search for companies capable of collaborating with local governments, public institutions, and the offices of education running the Employment Support Center. In 2018, a high school employment fund was newly established to provide incentives to students employed by SMEs. The Ministry of Education offers a special university admission pathway to vocational high school graduates who have a working experience of more than three years and operates a work/study curriculum that allows students to continue their competency development. In particular, starting in 2018, the government created a scholarship program for working students, providing full tuition to those who want to continue to develop their competencies without financial difficulties.

2) Sustainable Lifelong Education

A. Guaranteeing Lifelong Learning Right for All

Lifelong education in Korea incorporates systematic educational activities of six areas: complementary schooling, adult literacy education, vocational education, liberal arts/culture/arts education, and civic participation education. Since the constitutional amendment in 1988 that mandated lifelong education as the government's responsibility, the Korean government has been increasing access to lifelong learning for all citizens. In particular, various lifelong learning channels are provided according

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to local conditions throughout the country based on the promotion system that links "Lifelong Education Promotion Agency (city/province), Lifelong Learning City (city/county/district), and Happy Learning Center (town/township/neighborhood)."

Since 2018, education expenses have been supported for low-income adults. Up to 20,000 people are supported with a maximum of KRW 700,000 per year. Open middle schools and open high schools, as well as literacy learning that is recognized as academic achievement, provide adults who couldn't receive public education with opportunities to receive primary and secondary education. Since the adult literacy education began in 2006, more than 486,000 learners have benefited from it, and the adult literacy rate has increased to 79.8%.



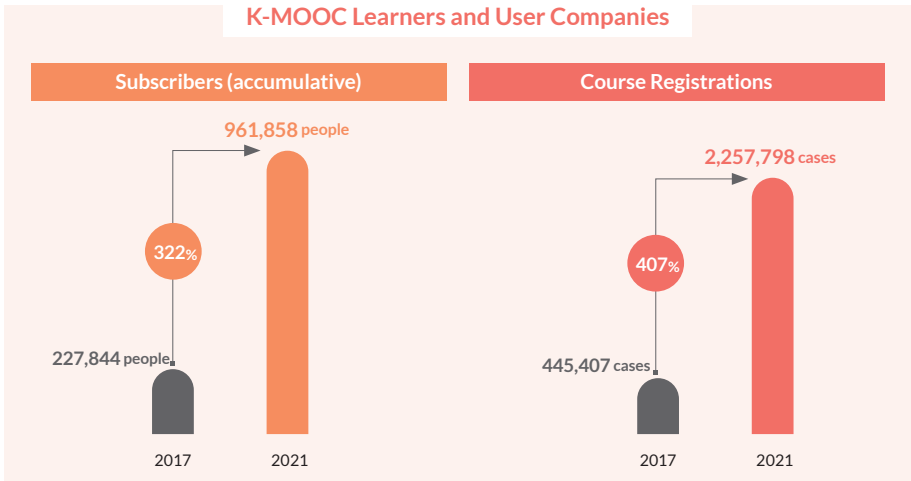
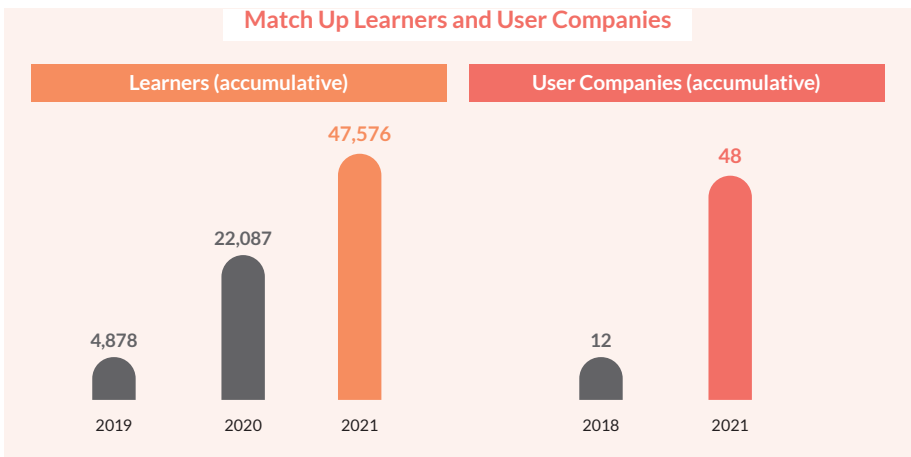
B. Online Lifelong Education in Promising Fields

The Korean government announced the "Open Lifelong Education and Training Innovation Plan in the Digital Era" in September 2020, and has been responding to diverse demands for online lifelong learning as a result of prolonged pandemic. Most of all, the government is building a system that allow the access to customized online educational content, ranging from university lectures to lifelong learning and training content, on a single platform. It will enable learners to keep and manage their learning history in one place, which can also be used to acquire credits and degrees, as well as for employment.

K-MOOC, the Massive Open Online Courses in Korea, provides more than 1,300 courses in various fields that are difficult to access via regular courses. As of 2021, courses related to Industry 4.0, namely artificial intelligence, and humanities and liberal arts courses lectured by world-renowned scholars are available on K-MOOC for free of charge. By the end of 2021, the cumulative number of subscribers was

960,000 and the number of course registration is 225.7 million.

Meanwhile, Match Up, an online curriculum jointly developed by companies and universities, also offers 48 courses in 12 fields including AI and big data since its introduction in 2018. Companies are in charge of the evaluation and certification of the educational outcome of learners to help them improve their practical job skills. By the end of 2021, the cumulative number of learners was 46,000, with 88 companies making use of this program.



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C. Work-Life-Learning Balance & Reinforcement of Universities' Lifelong Education

The Korean government has introduced the Lifelong Learning Account System (LLAS) to allow learners to keep track of their learning experiences in the form of lifelong learning account, and translate them into educational credits or vocational qualifications, or include them in their resume to ensure the learning outcomes are fully recognized and better utilized in the world of work. Since the introduction of the LLAS in 2010, the number of people who opened an account has reached 461,736 and the number of registered learnings is 94,886, with both numbers gradually increasing.

In addition, the government provides adult learners various channels to attain higher education, including the academic credit bank system and the self-education degree system. Since the academic credit bank system was introduced in 1999, as of 2021, a total of 838,667 individuals have been awarded college or university degrees. The government has established the “Korean Qualifications Framework” (KQF) in 2019 to allow academic background, qualifications, field experience, and results of education and training can be interconnected. It also plans to increase the relevance of the KQF to the world of work by ensuring that it is more broadly used in all sectors of society.

A flexible academic system, such as recognizing and translating work experience as academic credits and shortening the number of school days depending on subjects, is in operation to give adults an easy access to higher education. Also, universities willing to operate adult-only degree courses in line with social demand are eligible to receive financial support from the government.

5

Global Exchanges in Post-COVID-19 Era

When it comes to Korea's remarkable economic growth and democratization, there is no denying that education was one of the key drivers. To train human resources that are essential for industrial development, the Korean government designed and implemented educational policies that the world now admires. Schools in Korea offered remote learning throughout the country during the global pandemic, showing the resilience of Korea's education. Based on this experience, Korea is expanding its ODA scale and exchange programs to a new horizon.

1) Globalization of Higher Education and Exchange Program

A. Recruiting Talented International Students

Countries around the world are focusing their efforts on recruiting international students to attract talented human resources and expand their higher education



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sectors, and Korea is no exception. As of 2021, 152,000 international students from 185 countries are reported to be studying in Korea, demonstrating a huge increase in diversity. The Korean government aims to not only increase the number of international students, but also improve the overall quality of management from daily living assistance to academic programs. For example, the government recognizes exemplary universities with great track records in managing international student affairs, such as institutions offering Korean language education or providing an accommodative environment for the benefit of their students. In particular, the government made efforts to protect international students' right to learn while preventing the spread of COVID-19 through systematic management of each stage of international arrivals without any full-scale travel restriction or nationwide lockdown.

B. Enhancing Educational Mobility through Student Exchange Programs

The Korean government grants Global Korea Scholarship (GKS) to foster young talent from around the world to help them gain profound understanding of Korea by giving them an opportunity to study either undergraduate or postgraduate courses in Korean universities. The grantees receive scholarship and living allowance during the course of their studies. Since 1967, 12,466 international students have been invited from 157 countries, and in 2021, about 4,000 scholarship students studied across universities in Korea. As many as 6,500 GKS alumni are actively serving their roles in politics, business, and academia around the world.

In 2021, the Korean government launched CAMPUS Asia participated by not only students from Korea, China and Japan as usual, but also those from ASEAN universities to form a Pan-Asian higher education community and vitalize global exchanges. Asian International Mobility for Students (AIMS) is being conducted to vitalize student exchange programs among ASEAN countries. To date, 40 universities in Korea, China and Japan have supported exchanges of more than 6,600 students with joint/double degrees. Asian International Mobility for Students is supporting about 720 students in 78 universities in nine ASEAN countries for interactive human exchanges and fostering local experts.

Global Korea Scholarship Timeline

| Recipient | 1967 | ~2010 | 2015 | 2020 | Total |
|-----------|------|-------|------|-------|--------|
| Students | 6 | 696 | 838 | 1,320 | 11,156 |
| Countries | 3 | 107 | 131 | 134 | 156 |

C. Reinforced International Academic Cooperation for Education and Research

The Korean government is pursuing win-win growth of higher education with countries around the world by reinforcing cooperation in education and research with universities worldwide. This encourages joint research with world-renowned scholars while also facilitating exchanges via joint on- and off-line courses. Recently, the government has allowed the provision of joint online courses by international universities for undergraduate degrees as well as master's degrees as a means of strengthening online collaboration for education and research with universities around the world.

2) Sharing Educational Experiences with the World

A. Sharing Excellent Resources and Experiences of Korean Universities

Korea has been repeatedly requested to broadly share its experiences that led up to its educational development with countries around the world. Korea is committed to sharing its story with partners around the world as a means of returning the favor it received from the international community more than half a century ago.

Since 2012, the government has passed on its educational resources such as the higher education system and experiences to universities in developing countries to facilitate their building of the foundation for improving their own systems. The purpose of this project is to improve the education capabilities of universities in developing countries and to ultimately help them contribute to their local communities, while advancing national pride and international standing. This initiative

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reflects the Korean education ODA model that provides aid to overseas universities in need, which has supported 25 universities across 15 countries. Through the initiative, excellent results have been produced, such as turning a nursing school in Sri Lanka into a four-year university and creating undergraduate and master's courses for special education at a university in Nepal.



Nepali teacher training (Dept. of Special Education)



Nursing textbooks jointly developed by Chosun University and Mongolian National University

B. Dispatching and Exchanging Teachers

In addition, the Korean government dispatches competent Korean teachers abroad to assist in implementing fully functioning education systems in countries around the world. These teachers focus on facilitating the development of basic education capabilities. Every year, about 450 teachers participate in such international exchange programs and contribute to the development of basic educational capabilities (e.g. math, science, ICT) of developing countries. However, in-person mobility has been halted lately due to COVID-19. In consideration of the pandemic situation in each country, exchange programs have continued by shifting to online platforms.

C. Sharing Remote Learning Experiences and Reinforcing Educational Cooperation

The Korean government aims to enhance educational cooperation with countries included in its New Southern Policy, which is designed to reinforce cooperation with ASEAN countries, along with its New Northern Policy that aims to form a responsibility-sharing Northeast Asian community. Since 2005, the government has implemented a variety of projects, including the establishment and operation of pilot classes using cutting-edge ICT and Solar Schools (i.e. mobile solar-powered classrooms), upon requests from developing countries for the informatization of their education systems.

Globalization of E-learning (2005–2020; accumulated)

| Participating Countries | Participating Decision-Makers/ Teachers/Students | Supported Devices |
|-------------------------|---|-------------------|
| 54 | 9,536 | 36,204 |

3) Educational Support for Korean Language and Korean Studies Overseas

A. Encouraging the Adoption of Official Korean Language Courses

Korean language education is important as it effectively serves as the foundation for building friendship between Korea and countries around the world by nurturing those who have profound understanding of not only Korean language but also culture, based on which more vibrant bilateral exchange and cooperation cutting across diverse socioeconomic fields can be established. Thus, the Korean government collaborates with governments of foreign countries and their formal educational institutions, including elementary, middle, and high schools, as well as universities, to provide Korean language education. First, they are encouraged to create and offer Korean language courses so that Korean language can be adopted as a second

Korean Language Education Overseas (2021)

| Classification | 2021 |
|---|---|
| Korean language education (elementary/middle school) | 170,000 students (1,820 schools in 44 countries) |
| Dispatched Korean teachers | 93 teachers (12 countries) |
| Teacher training programs(elementary/middle school) | 14 programs |
| Local teacher training | 250 teachers |
| Applicants of TOPIK(Test of Proficiency in Korean) | 330,000 applicants |

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foreign language in their elementary, middle, and high schools. To improve the quality of Korean education, the Korean government provides assistance in developing the Korean language curriculum and Korean language teacher training programs. Since this project was launched in 1999, it's been expanded to support the New Southern Policy and New Northern Policy regions, thereby giving benefit to more than 160,000 students learning Korean language in 1,800 schools across 44 countries. The training programs for Korean language teachers are also being implemented in universities around the world to create the foundation for developing Korean language curriculum by themselves in the long term.

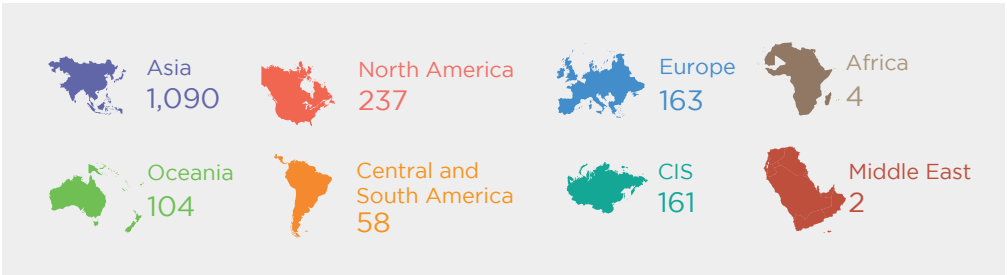
B. Support for Korean Studies Education and Research

The significance of Korean studies not only lies in its academic value, but also in its critical role in raising the understanding of Korea on the global stage as a public diplomacy tool. Thus, the Korean government is creating a virtuous circle to cultivate foreign scholars of Korean studies by supporting each level of their development, from preliminary courses through intermediary to intensive courses. A program aiming to create a conducive environment for Korean studies is operated in universities around the world with a weak foundation for Korean studies, and intermediary courses are provided to further proliferate Korean studies. Furthermore, creative research on Korean studies is promoted both within and outside of Korea to produce globally recognized research outcomes. An academic foothold is established in research centers worldwide where Korean studies research is being readily conducted, and they also translate classical Korean literature and modern scholarly books as part of their research.

Korean Studies Overseas (2006–2021; accumulated)

| Stage | Preliminary | Intermediary | Intensive | Total |
|-------|-------------|--------------|-----------|-------|
| Total | 153 | 69 | 30 | 252 |

Korean Language Classes Overseas (Elementary/Middle School; as of Dec. 2021)



* Suspension due to local political situation (it will resume once the situation stabilizes).



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Appendix

Educational Statistics

Number of Schools, Students, and Teachers 2021

Enrolment Rates

Number of Students per Teacher

High School and Higher Education Completion Rate

Expenditure on Educational Institutions as a percentage of GDP

Expenditure on Educational Institutions per Student

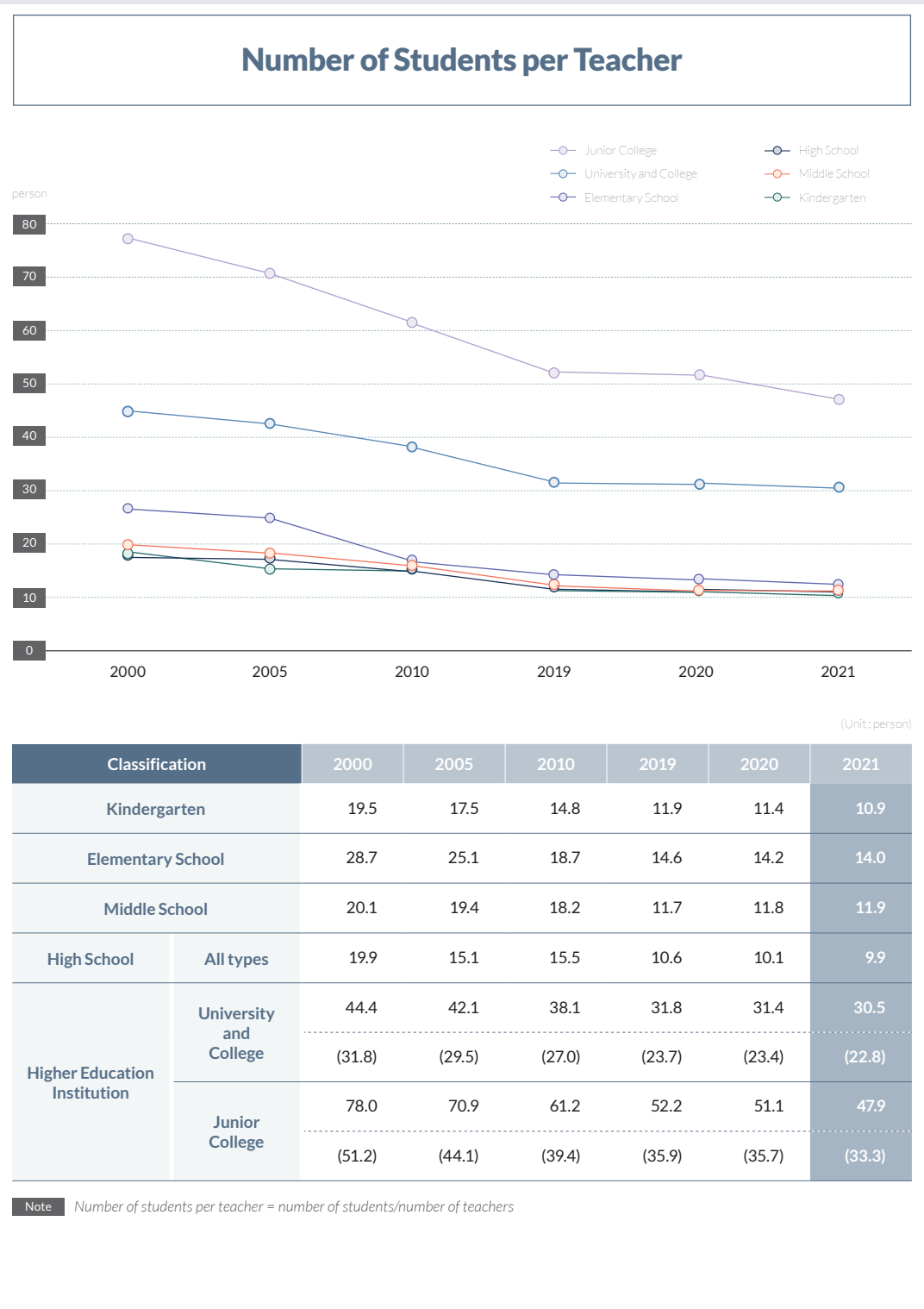
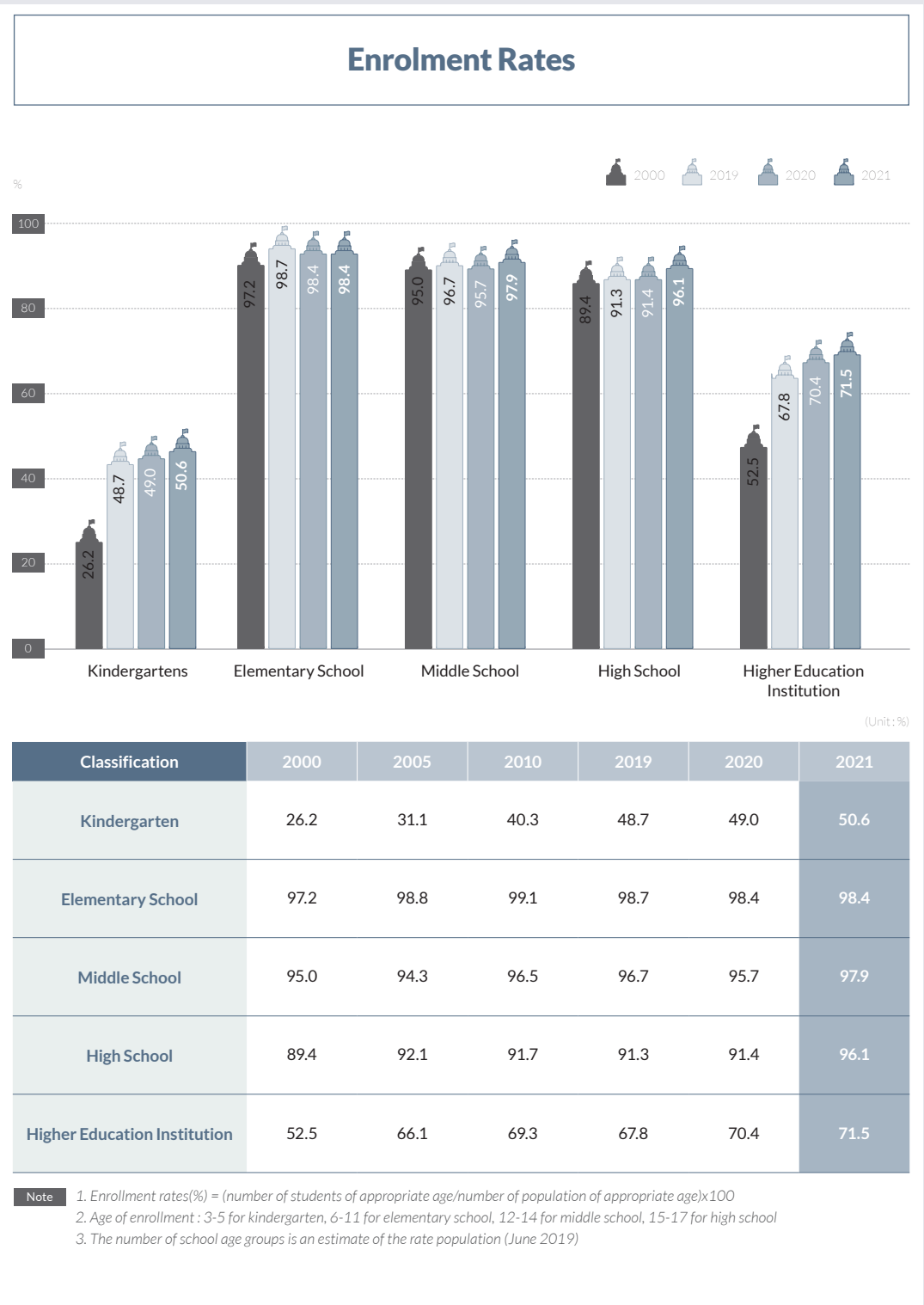
OECD PISA Rankings of Korea

Government Budget vs. Ministry of Education (MOE) Budget

| Number of Schools, Students, and Teachers 2021 | | | | |
|--|------------------|----------------|-----------------|-----------------|
| Types of schools | | No. of schools | No. of students | No. of Teachers |
| Pre-primary, Primary and Secondary Education | | 20,772 | 5,957,118 | 500,859 |
| Kindergarten | | 8,660 | 582,572 | 53,457 |
| Elementary School | | 6,157 | 2,672,340 | 191,224 |
| Middle School | | 3,245 | 1,350,770 | 113,238 |
| High School | Subtotal | 2,375 | 1,299,965 | 131,120 |
| | General | 1,616 | 961,275 | 91,448 |
| | Special-purposed | 161 | 63,181 | 8,001 |
| | Specialized | 488 | 198,663 | 24,816 |
| | Autonomous | 110 | 76,846 | 6,855 |
| Special School | | 187 | 26,967 | 10,269 |
| Civic High School | | 3 | 43 | 5 |
| Trade High School | | 7 | 529 | 71 |
| Miscellaneous School | | 72 | 9,000 | 1,475 |
| Open Middle School | | 24 | 4,782 | - |
| Open High School | | 42 | 10,150 | - |
| Higher Education | | 426<1,129> | 3,201,561 | 90,464 |

| Types of schools | | No. of schools | No. of students | No. of Teachers |
|---------------------|--|----------------|-----------------|-----------------|
| University/ College | Subtotal | 381 | 2,874,146 | 82,746 |
| | University | 190 | 1,938,254 | 67,473 |
| | University of Education/ Teachers' College | 10 | 15,409 | 833 |
| | Industrial College | 2 | 14,539 | 350 |
| | Junior College | 134 | 576,041 | 12,028 |
| | Open College | 1 | 142,719 | 153 |
| | Cyber University & College | 19 | 142,127 | 607 |
| | Technical College | 1 | 62 | - |
| | Miscellaneous School | 2 | 3,438 | 149 |
| | Specialized College | 3 | 14,821 | 268 |
| | Distance University/College* | 2 | 2,486 | 18 |
| | College in the Company* | 8 | 340 | 4 |
| | Polytechnic College | 9 | 23,910 | 863 |
| Graduate School | Subtotal | 45<1,129> | 327,415 | 7,718 |
| | Graduate School College | 45 | 10,452 | 1,583 |
| | Graduate School | <1,129> | 316,963 | 6,135 |

Note 1. The number of schools includes all new and existing schools, but not closed schools and branch schools
2. The number of universities has included five branch schools since 2018.
3. * indicates lifelong education institutions.
4. Figures in < > are not included in the total.
5. The number of Undergraduate and graduate students includes those who take a leave of absence from school and it also includes those who postponed acquisition of a bachelor's degree since 2019.
6. TThe number of elementary and secondary school teachers includes regular and short-term teachers(including those on leave of absence), but not retired or temporary lecturers.



High School and Higher Education Completion Rate

(Unit: %)

| Classification | | High School Completion Rate | | | | | Higher Education Completion Rate | | | | |
|----------------|--------------|-----------------------------|----------------|----------------|----------------|----------------|----------------------------------|----------------|----------------|----------------|----------------|
| | | 25-64 yrs. old | 25-34 yrs. old | 35-44 yrs. old | 45-54 yrs. old | 55-64 yrs. old | 25-64 yrs. old | 25-34 yrs. old | 35-44 yrs. old | 45-54 yrs. old | 55-64 yrs. old |
| 2020 (2021) | Korea | 39 | 28 | - | - | - | 51 | 70 | - | - | - |
| | OECD Average | 37 | 40 | - | - | - | 39 | 45 | - | - | - |
| 2020 (2021) | Korea | 39 | - | - | - | - | 49 | 70 | - | - | - |
| | OECD Average | 38 | - | - | - | - | 39 | 44 | - | - | - |
| 2019 (2020) | Korea | 39 | 28 | - | - | 43 | 50 | 70 | - | - | 24 |
| | OECD Average | 36 | 39 | - | - | 42 | 40 | 45 | - | - | 28 |
| 2010 (2012) | Korea | 80 | 98 | 95 | 73 | 43 | 40 | 65 | 47 | 27 | 13 |
| | OECD Average | 74 | 82 | 78 | 72 | 62 | 31 | 38 | 33 | 28 | 23 |
| 2005 (2007) | Korea | 76 | 97 | 88 | 60 | 35 | 32 | 51 | 36 | 18 | 10 |
| | OECD Average | 68 | 77 | 71 | 64 | 54 | 26 | 32 | 27 | 24 | 19 |

Note 1. "Completion rate" refers to the percentage of individuals who completed their high school or tertiary education within the same-age population bracket.
2. The first years refer to the school year. The years in parentheses refer to the EAG (Education at a Glance) publication year.
3. The asterisks refer to unannounced indicators
4. The high school completion rates for the 2005 and 2010 school years refer to 'the percentage of individuals who completed their high school education or higher education'

Source OECD (for each publication year), Education at a Glance: OECD Indicators

Expenditure on Educational Institutions as a percentage of GDP

(Unit: %)

| Classification | | Primary, Secondary and Post-secondary Non-tertiary | | | Tertiary | | |
|----------------|--------------|--|---------|-------|----------|---------|-------|
| | | Public | Private | Total | Public | Private | Total |
| 2018 (2021) | Korea | 3.1 | 0.4 | 3.5 | 0.6 | 0.9 | 1.6 |
| | OECD Average | 3.1 | 0.3 | 3.4 | 0.9 | 0.4 | 1.4 |
| 2017 (2020) | Korea | 3.0 | 0.4 | 3.5 | 0.6 | 1.0 | 1.6 |
| | OECD Average | 3.1 | 0.3 | 3.5 | 1.0 | 0.4 | 1.4 |
| 2016 (2019) | Korea | 3.1 | 0.5 | 3.7 | 0.7 | 1.1 | 1.7 |
| | OECD Average | 3.1 | 0.4 | 3.5 | 0.9 | 0.5 | 1.5 |

Note 1. Expenditure on educational institutions as a percentage of GDP =(expenditure from public sources + private sources + international sources)/GDP* 100
- Since the totals include international sources, rounding-off may differ from simple sum(public sources and private sources).
- The expenditure from private sources of Korea includes those from international sources.
2. The indicator above indicates the final source of funds - expenditure after transfers from the government to the private sectors - are included in private sources.
* Transfers from government to private sector(example): scholarships for students, financial aid to households, etc.
3. GDP of Korea(data refer to the fiscal year): 1,642 trillion won in 2016, 1,836 trillion won in 2017, 1,898 trillion won in 2018.

Source OECD(pertinent year), Education at a Glance: OECD Indicators

Expenditure on Educational Institutions per Student

(In equivalent USD converted using Purchasing power parity(PPP) for GDP)

| Classification | | Primary | Secondary | Tertiary |
|----------------|--------------|---------|-----------|----------|
| 2018 (2021) | Korea | 12,535 | 14,978 | 11,290 |
| | OECD Average | 9,550 | 11,192 | 17,065 |
| 2017 (2020) | Korea | 11,702 | 13,579 | 10,633 |
| | OECD Average | 9,090 | 10,547 | 16,327 |
| 2016 (2019) | Korea | 11,029 | 12,370 | 10,486 |
| | OECD Average | 8,470 | 9,968 | 15,556 |

Note 1. Expenditure per student on educational institutions= [Direct expenditure within educational institutions/number of students]/PPP
2. Korea's Purchasing power parity for GDP(PPP, USD = 1): 862.55 won in 2016 and 871.70 won in 2017, 865.72 won in 2018(Data refer to the financial year).

Source OECD(pertinent year), Education at a Glance: OECD Indicators

OECD PISA Rankings of Korea

(Three year cycle, Object : 15 years olds)

| Year | | 2006 | 2009 | 2012 | 2015 | 2018 |
|-------------------|-------------|------|------|------|------|------|
| No. of Countries | | (57) | (75) | (65) | (72) | (79) |
| OECD Countries | Reading | 1 | 1~2 | 1~2 | 3~8 | 2~7 |
| | Mathematics | 1~2 | 1~2 | 1 | 1~4 | 1~4 |
| | Science | 5~9 | 2~4 | 2~4 | 5~8 | 3~5 |
| Partner Countries | Reading | 1 | 2~4 | 3~5 | 4~9 | 6~11 |
| | Mathematics | 1~4 | 3~6 | 3~5 | 6~9 | 5~9 |
| | Science | 7~13 | 4~7 | 5~8 | 9~14 | 6~10 |

Note

Source

1. Ranges of ranks for each country are provided at the 95 percent confidence level since PISA 2006.
OECD. <http://www.oecd.org/pisa>

Government Budget vs. Ministry of Education (MOE) Budget

(Unit: Million won, %)

| Year | Government budget | Ministry of Education budget | Government budget vs. Ministry of Education (MOE) budget |
|------|-------------------|------------------------------|--|
| 2020 | 427,109,370 | 76,995,734 | 18.0 |
| 2019 | 399,769,098 | 74,947,793 | 18.7 |
| 2015 | 322,787,071 | 51,224,094 | 15.9 |
| 2010 | 211,992,599 | 41,627,519 | 19.6 |
| 2005 | 134,370,378 | 27,982,002 | 20.8 |
| 2000 | 93,937,057 | 19,172,028 | 20.4 |

Note

Source

1. Government budget for 2000 = General accounts + Special account for the management of funds transferred to local governments + Special account for the management of funds transferred to local education agencies
2. Government budget for 2010~2021 = General accounts + Special accounts
3. MOE budget = General accounts + Special accounts
4. MOE budget for 2010: Budget of the now-obsolete Ministry of Education, Science and Technology (MEST)
MOE (budget officer); DBAS(Digital Budget and Accounting System)

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