Center for Digital Education Research

# Digital Education Research Center

We are committed to education for all.





The Digital Education Research Center continue to put all efforts into creating a teaching and learning environment based on intelligence information technology in order to realize lifelong learning society in line with the national education welfare policy.

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- e-School for athlete students
- School For You
- Online Common Education Course

#### For the unschooled and school dropouts

- Learning Support for unschooling · dropout Students in the compulsory Education Phase

KOREAN EDUCATIONAL DEVELOPMENT INSTITUTE



The Digital Education Research Center has been actively living up to the value of lifelong secondary education that has taken on a greater significance in our society today.

The Digital Education Research Center has been working hard to expand opportunities for digital-based regular education for the underprivileged and to provide customized education support services based on learner analysis. Moreover, the Center has created a teaching and learning environment based on intelligence information technology in order to offer secondary education suitable for a lifelong learning society. The Korean Educational Development Institute(KEDI) has walked through the entire history of the Digital Education Research Center together, and is very honored and proud to witness the progress the Digital Education Research Center has made so far.

Currently, our society is facing significant changes such as the advent of the 4th industrial Revolution, decreasing the number of school-age population due to low birth rate, rapid movement towards a multi-cultural society, and creation of favorable environment for inter-Korean cooperation.

Accordingly, the future society calls for talents with creative and convergent thinking competency who will create value for sustainable development, education reform and innovation. For this, the Digital Education Research Center has set out the vision for 'establishing a customized and open learning system through the convergence of education and intelligence information technology' and stepped up efforts to heighten its status as the central digital education research center in Korea.

KEDI is committed to supporting the Digital Education Research Center as it continues to develop as the hub for educational innovation by taking initiatives in realizing progressive education policies for the underprivileged, as well as connecting Ministry of Education, Metropolitan and Provincial Offices of Education, and schools around the nation.

In addition, we will secure our competitive edge through continuous research and policy development and flexibly respond to the changes in education associated with the 4th Industrial Revolution. Envisioning a fully inclusive society, we pledge to put all our efforts into creating educational innovation for the underprivileged. We would like to ask you to give us your continued interest and strong support.

President of KEDI Ban, Sangtim

## History



#### 1973 ~

- Feb 1973 Revised high school entrance examination Mar 2004 Built cyber education system at Open system and set the plan for the establishment of Open High Schools (Ministry of Education)
- Mar 1973 Consigned research for the establishment Mar 2006 Began cyber education system for of Open High Schools to KEDI (Ministry of Education)
- Mar 1974 Founded 11 Open High Schools (in Seoul and Deagu) Implemented the radio broadcasting lecture system and offline classes at Open High Schools
- Sep 1976 Enacted regulations on educational credential assessment test for graduation of students who have completed Open High School curriculum (Decree of Mistry of Education)
- Feb 1977 Held the 1st graduation ceremony of Open High Schools (Number of graduates: 2,680)
- Mar 1987 Established 50 Open High Schools in 26 cities and 1 rural community (Number of students: 48,067)







#### 2004

- High Schools Ran model schools of cyber education designated by Ministry of Education, Science and Technology(3 schools)
- freshmen at Open High Schools Abolished the educational credential assessment test for graduation
- Mar 2008 Applied cyber education system for all grade levels at open high

Founded an open high school affiliated with Howon High School(Gyunggi) (total number of schools: 40)

#### 2011 ~

- Jan 2011 Restructured Open High Schools' operation system and established the plan to support the underprivileged through distance education (The plan to build Open Middle Schools is included, Ministry of Education, Science and Technology)
- Aug 2011 Revised the 「Degree on Standards for the Establishment of Open High Schools J & enforcement regulations (Adopted credit-based certification system (current Learning Experience Recognition System)
- Jan 2012 Revised 「Elementary and Secondary Education act」(No.11219) (Laid the ground for the establishment of Open Middle Schools)
- Mar 2012 Began mobile learning services at Open High Schools Introduced Learning Hours Recognition System in Open High Schools (current Learning Experience Recognition System) and ran model schools (3 schools)
- Sep 2012 Ran Online Classes (in High Schools)





#### 2013~

Mar 2013 Founded open middle schools affiliated with Daegu High School (Deagu), Gwangju Buksung Middle School (Gwangju) (total number of schools:2)

Implemented Learning Experience Recognition System at Open Secondary Schools

Mar 2014 Founded 4 Open Middle Schools affiliated with Daejeon Bongmyeong Middle School(Deajeon), Suwon Jeil Middle School, Howon Middle School(Gyeonggi), Kyongwon Middle School (Gyeongnam) (total number of schools: 6)

Founded 2 Open High Schools affiliated with Sangdong High School and Seohyun High School(Gyeonggi) (total number of schools: 42)

Mar 2015 Founded 6 Open Middle Schools affiliated with Ahyeon Middle School(Seoul), Namchuncheon Middle School & Wonju Middle School & Gangneung Middle School(Gangwan), Jeonra Middle School(Jeonbuk), Jinju Middle School (Gyeongnam) (total number of schools: 12)

May 2015 Established e-School online learning system for student-athletes

Sep 2015 Ran Online Classes (in Middle Schools)

Feb 2016 Held the 1st graduation ceremony for Open Middle School (the number of graduates: 201)

Mar 2016 Founded 8 Open Middle Schools affiliated with Busan Hwamyong Middle School, Incheon Guwol Girls' Middle School, Ulsan Haksung High School, Gyeonggi Sampyung Middle School, Cheonnam Mokpo Jungang Girls' Middle School & Suncheonyeonhyang Middle School, Jejiu Jeil Middle School (total number of schools: 20)

 May 2016 Established a distance class system for students with health impairment

#### 2017~

Mar 2017 Newly established a youth class in Open Middle Schools affiliated with Jeju Jeil Middle School

Ran a distance class for middle school students with health impairment

Implement e-Schools for student-athletes for Open Secondary Schools in full (the number of schools: 2,370, the number of students who attended: 40, 128)

Ran pilot projects to support preschoolers and school dropouts students who are subject to compulsory education (6 cities and provinces)

Jun 2017 Ran pilot projects to support Online Common Education Course (6 cities and provinces)

 Jul 2017 Opened e-School run-up courses for studentathletes (to meet basic academic capability)

Sep 2017 Ran real-time video conference classes for students with health impairment

Nov 2017 Revised 「Enforcement Decree of Elementary and Secondary Education Act (Laid the ground to run a pilot project to support preschoolers and school dropouts students who are subject to compulsory education)

Dec 2017 Revised Enforcement Decree of Standard for the Establishment of Open Secondary Schools (President Decree No. 28517) (Laid the ground to shorten and extend the years required for graduation)

Established the learning management system to support preschoolers and school dropouts students who are subject to compulsory education

Mar 2018 Founded 3 Open Middle Schools affiliated with Chungbuk Jusung Middle School, Chungnam Cheonan Middle School, Gyeongbuk Pohang Middle School (total number of schools: 23)
Ran pilot projects to support Online Common Education Course (11 cities and provinces)

Apr 2018 Implemented the 1st educational credential assessment of pilot projects to support preschoolers and school dropouts students who are subject to compulsory education (4 students' academic achievement were acknowledged)

Oct 2018 Held the 1st distance class offline camp 'Let's go together, friends' for student with health impairment

Dec 2018 Established the online assessment system for online classes









#### 2019~

Jan 2019 Changed the name of 'distance classes for students with health impairment' to 'School For You'

Revised the part of 「Guidelines for managing students' school record」 (Directive No.280) (set a criteria to record the result of online class completion)

Mar 2019 Founded Open Middle School affiliated with Hong Sung Girls' Middle School (Chungnam) (the number of schools: 24)

Established the elementary school courses system for School For You

Extended pilot projects to support preschoolers and school dropouts students who are subject to compulsory education (15 cities and provinces)

Ran pilot projects to support Online Common Education Course (17 cities and provinces)

Mar 2020 Ran a School For You For Elementary



## **Vision and Objectives**

#### DIGITAL EDUCATION RESEARCH CENTER

#### Vision

**Ensure Equity in Education though Online Education** 

#### **Mission**

**Expand opportunities** for formal education and guaranteeing right to learn for vulnerable groups in education

Operate primary and secondary education to meet the demand for lifelong learning society

Establish teachinglearning environments to ensure equal access to education for all

#### Goals

- Strengthen the Center's status as a national research hub for online education
- Monitor and improve the quality of education in Open Secondary School and Online education programs through the Performance Management System
- Provide personalized learning supports through the application of learning analytics
- Strengthen research competencies about the use of future technologies such as AI, Big Data analytics and apply those technologies into Online education
- Investigate the feasibility of establishing online secondary school as a response to various learning demands and changes in the learning environments
- Improve evaluation system of Recognition of Prior learning(RPL) in Open Secondary School
- Support implementation of High school Credit System through the advancement of the Online Interschool Program
- Develop various digital learning contents to expand choices in learning and enrich personalized learning

### **Roles and Functions**

# **E**nhancement of Online Learning Experience

- Ensure a successful online learning experience
- Create an online learning environments, develop teaching competencies, and provide consulting sessions to teachers in order to improve the quality of education

#### Provision Data-based Learning Support

- Provide adequate learning supports based on data collected from previous learners
- Build the infrastructure that make possible to use AI and Big data analytics for learning

# Research Hub for Online Educaiton

- Respond to individual and social demands for online education by serving as a research hub for online education
- Play a leading role in research in the development of online education and its practical application

## DIGITAL EDUCATION RESEARCH CENTER



# peration ofOnline Education

- Operate Open Secondary School and Online Interschool program
- Conduct research and assist operation of online education programs, based on accumulating experience in the field

# **G**uarantee of Equal Access to Education

- Design online curriculum and courses, which minimizes obstacles to online learning
- Ensure equal access to education for all based on universal design for learning

# Provison of Personalized Online Learning

- Design personalized curriculum and learning environments
- Provide student-centered online education based on learning analytics



## **System and Organization**



#### **Korean Educational Development** Institute(KEDI)

Research, development, and assistance for operation



#### **Future Education Research Division**



#### **Digital Education Research Center**

- Oversee and supporting Center's projects
- Support basic research
- Run a Research School
- Run an evaluation committee for learning experience recognition

- Operation and maintenance of cyber education system
- Operation and maintenance of IT Infrastructure/security
- · Support for Open Secondary School students' capability to utilize ICT

- Provide consulting service for the establishment and operation of Open Middle · High School
- Plan and support academic affairs of Open Middle · High School
- Support Open Middle · High School's related personnel association
- Run Open Middle·High School's learning experience recognition system
- Advertize Open Middle · High School
- Operation of Open Middle · High School comprehensive counseling

- Run Online Classes
- Development of online class system and curriculum contents

• Operation of Online Common **Education Course** 

- Plan Open Middle · High School's curriculum
- Develop and disseminate Open Middle · High School's contents
- · Provide support for enhancing basic academic capability of Open Middle · High School

- Run a e-School for student-athlete
- Learning Support for unschooling ·dropout Students in the compulsory Education Phase

• Run a School For You for elementary and secondary courses

## **Education Support Projects**

The Digital Education Research Center has pushed ahead with education support projects for the underprivileged.

#### For students without regular secondary school diploma



#### **Establishment and Operation of Open Secondary Schools**

- Establish operation systems of Open Secondary School
- Analyze prospective students and provide consulting service for the establishment · operation
- Offer specialized programs considering characteristics of students
- Provide education curriculums that correspond with characteristics of Open Secondary School
- Create and operate Credit Recognition System for extracurricular learning experience

#### For enrolled students of school age

#### Offer online classes to strengthen the right to learn and select subjects



- Address the problems of general middle and high school students not completing required curriculum and to offer additional subjects to choose
- Set guidelines for online classes consigned by Metropolitan and Provincial Offices of Education
- Improve the criteria and method of assessing online class achievement
- Determine what and how to record the students' school record for online class attainment



- Fulfill the right to education and help students get back into learning
- Improve the quality of education for students with health impairment
- Help students gain emotional stability
- Set up a system tailored to students with health impairment



- Provide online classes to fulfill the right to education for student-athlete
- Enhance student-athletes' lowered academic ability caused by absence of classes
- Provide programs to assist students who lack basic academic ability



- Strengthen the right to select subjects for students who have chosen unavailable subjects and those who live in rural area
- Offer a two-way, real-time online education system for 24/7 access
- Have the Credit System in place as a groundwork to support education policies and strategies

#### For the unschooled and school dropouts

#### Support and recognize their academic achievement



- Provide opportunity to gain recognition and develop programs to support learning for dropout or preschool students
- Set a criteria and system to acknowledge academic achievement for dropout and preschool students
- Form · run a committee and procedures of Educational Credential Evaluation
- Establish a criteria and system of learning support program for dropout and preschool students
- Form·run a committee, indicator, criteria, and procedures of designation

For students without regular secondary school diploma

## Open Middle · High Schools

Open Middle · High Schools are established as affiliated schools at 66 public middle · high schools across the nation in order to provide learning opportunity for those who do not have secondary education qualification.

☀ Relevant grounds: Article 10 of 「Degree on Standards for the Establishment of Open Middle School and Open High Schools

#### **Target**

Those who do not complete secondary education (who do not obtain middle school diploma, who do not obtain high school diploma)

#### Operation Method

#### A school that implement digital-based lifelong education

Anyone can easily study through the Internet anytime, anywhere.



#### A school that recognizes extracurricular learning experiences

Through learning experience recognition system, credits are awarded for your extracurricular learning experiences such as the GED (general equivalency diploma), lifelong learning account system, and various licenses.



The years required for graduation is 3 years, same as regular middle high schools.



#### A school you can attend anywhere around the nation M

Open Secondary Schools are affiliated with prestigious middle · high schools across the nation, so you can attend one nearby.

#### A school where anyone can come and

Regardless of age and gender, anyone who is a graduate of elementary/middle school or has recognition of equivalent achievement is given an equal opportunity for secondary education.



# 

#### A school that you go to twice a month

Offline classes occur twice a month (every other weekend), and students take cyber courses through the Internet during the week. Students can study while having a full-time job.

#### Educational Method



Students have face-to-face classes with teachers by attending classes twice a week and experience other various school programs including entrance ceremony, graduation ceremony, picnic, field learning, festival, intramural athletics, school trip, school competition, paper, and examination etc.

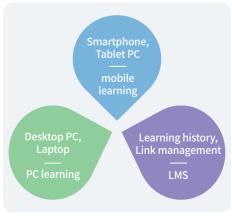




Smart learning environment is available through various learning media such as PC, and smart phone etc. Students can learn easily and conveniently - anywhere, anytime!



Taking a distance learning classes



Smart learning environment

For students without regular secondary school diploma

## Open Middle · High Schools

#### **Customized Education Programs**



## ► Learning Support Programs for Open Middle · High Schools

- Support students as they complete formal education in English and Math
- Provide online tutoring services
- Conduct assessment of basic academic skills
- Provide contents tailored to individual levels and real-time video lectures



#### Visiting ICT classes at Open Middle Schools

- Provide Information Technology education to new students at Open Middle School
- Offer on-site consulting services delivered by professional instructors
- Provide basic computer skills training





#### Self-Understanding Programs for Open Middle Schools

- Help students adapt to school life
- Conduct a students survey
- Provide professional instructors' explanatory lectures on results
- Offer student-led activity programs



#### Character & Career Development Curriculum for Open High Schools

- Run counseling services tailored to each student's needs (Naraejabi: My Future Guidance)
- Conduct personality & career online tests for students
- Provide learning materials for character & career education



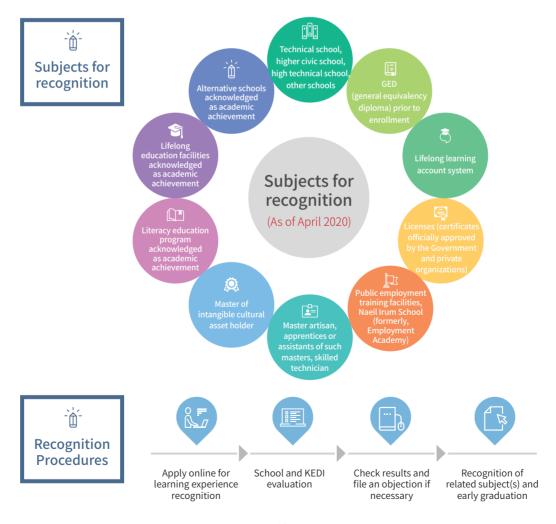
#### **Operation System**

#### The Recognition of Prior Learning for Open Middle∙High Schools

When students of Open Secondary School have learning experiences outside of school, they can get their experiences evaluated to see if they can get them recognized as the equivalent of a related open secondary school's course.

For subjects recognized and assigned to the 3-year courses, students can get excused from a class or exam. If students earn many credits awarded for extracurricular learning experiences, they can graduate a year earlier at maximum.

\*\* Relevant grounds: Article 3-2 of 「Degree on Standards for the Establishment of Open Middle School and Open High Schools」 (Presidential Decree No. 24423)



#### Introduction of Support Projects

#### For enrolled students of school age

## **Online Classes**

Middle School ms.onlineschool.kr High School hs.onlineschool.kr

Online class, or distance learning system is designed to fulfil the right to learn and the right to choose subjects by providing online class which is demanding to be provided or completed in offline class for students who are transferred.



Relevant grounds: Article 24 and Enforcement Ordinance No. 48 of Felementary and Secondary Education act

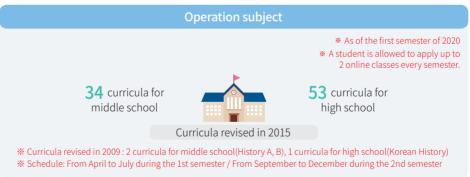
**Target** 

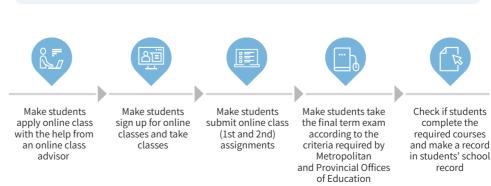
Middle and high school students who are transferred and required to complete some elective subjects

**Features** 



Details of Online Class Utilize curriculums based on regular middle · high school educational curriculums (utilize online lectures of Open Middle · High School)





#### For enrolled students of school age

### e-School for student-athletes

Middle School ms.e-school.or.kr High School hs.e-school.or.kr

e-School is designed for student-athletes who are missing classes due to athletic competition and practice sessions.

\*\* Relevant grounds: Article 6 and Article 11 of 「School Sports Improvement Acts」



#### **Target**

Middle · High Schools in which student-athletes are enrolled

#### **Features**



Provide regular curriculum suitable for academic courses (provided by Open Secondary School)

Offer online learning programs customized for student-athletes

Help student-athletes make up the work he or she may have missed due to athletic competition and training

Enhance the efficiency of learning management and guidance for studentathletes

Provide online [learning resources] and [written confirmation on learning]



Make it easy and convenient for students to learn - anywhere, anytime

Allow student to study by using PC, mobile PC, and tablet anywhere and anytime

## Details of e-School

#### **Regular Curriculum** Run-up Curriculum Help student-athletes make up the class missed Programs are given during winter vacation to due to athletic competition and training, Provide ensure basic academic capability of studentprograms for supporting learning on a regular basis athletes who are academically incompetent student-athletes in middle school who score less than Middle · High Schools in 40% of the average score, student-athletes in high school which student-athletes are enrolled who score less than 50% of the average score Middle school(5subjects): Make autonomous decision about which Korean, English, Math, Social Studies, Science regular curriculum is provided by Open High School(3subjects) : Korean, English, Social Studies (Classes are subject to change.) Secondary School Run-up Summer: Jul13,2020~Sep25,2020 the 1st semester: Mar13,2020~Aug21,2020 Run-up Winter: Dec14,2020~Feb19, 2021 the 2nd semester: Sep1,2020~Jan29, 2021



#### For enrolled students of school age

#### School For You

Elementary School es.s4u.kr Middle School ms.s4u.kr High School hs.s4u.kr

School For You refers to an online learning system which is designed to help students with health impairment who have difficulties in attending schools, allowing them to pursue their educational experience

\* Relevant grounds: Article 3 and Enforcement Ordinance No. 10 of The Act on Special Education for Disabled Persons and Enforcement Ordinance No. 48-1 of Felementary and Secondary Education act

**Target** 

An Elementary · Middle · High school students who are identified as having health impairments by Metropolitan and Provincial Offices of Education or who are found eligible for School For You because of long-term medical treatment

#### **Features**



- · Students can begin right away when they sign up for membership
- · Allow students to access schoolwork 24/7 from anywhere
- Provide a customized class allowing students to choose subjects and chapters
- Offer various subjects for each



Real-time videoconference class together with peers

- · Provide real-time classes for major subjects
- Meet teachers and classmates through a video class system



Easy attendance management

 Students and teachers can check attendance status easily



Learning management and support from online tutors

- · Assign a personal online tutor for each student
- · Provide learning management and counseling service on a periodic
- · Face-to-face, offline conversation
- Q&A session via homepage and video call

#### **Details of** School for you

#### Online class

Utilizing contents produced by the teacher in charge

-1st~2nd grade: Korean, Math, Subject-centered class

- Subject-centered class
- **X** Created in March 2020

Real-time video classes based on regular educational curriculums

- -1st~2nd grade: Korean, Math, Integrated subjects
- 3rd~6th grade: Korean, Social, Math, Science, 3rd~6th grade: Korean, Social, Math, Science

Utilizing contents based on regular middle · high Real-time video classes based on regular school educational curriculums

- -Curricula revised in 2015: 20 curricula for middle school, 53 curricula for high school
- educational curriculums
- Korean, Math, English, Social, Science

#### **Procedures**



[Students · Parents] Apply for School For You with the help of teacher belonging to the school



[Schools] Submit application form for to the Office of Education under the jurisdiction



[Education Office] Get evaluation on the eligibility for special education and Submit application form for to School For You



[School For You] Arrangement of online tutors and provide guidelines



[Students · Parents ·Teachers] Sign up for School For You and take classes

#### For enrolled students of school age

## **Online Common Education Course**

classon.kr

A number of schools sign up to participate in online coursesharing consortium, or Online Common Education Course. The goal is to provide real-time/interactive online class registered by a small number of students or faced with challenges in supply of teachers.



\*\*Relevant grounds: Article 24 and Enforcement Ordinance No. 48 of Flementary and Secondary Education act.

**Target** 

High school students who want to take class which is not opened

**Features** 



Video-centered and one-way class
 → real-time/interactive class →
 a wide range of classes including
 reverse class, blended learning, and
 discussion etc.



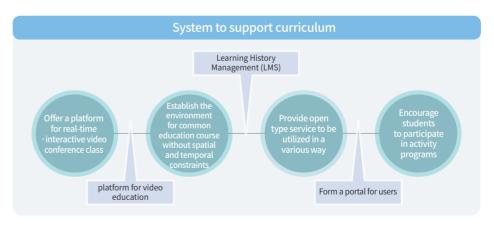
 Remove spatial and temporal constraints by using IT technology — Provide a wider range of academic options, a wealth of learning opportunities which will fit students' skill, interest, and career path

**Details** 

#### Provide a wealth of learning opportunities with students

Offer real-time/interactive, student-centered and intensive courses with a small number of students such as discussion, project activities etc.

Operation System





#### Introduction of Support Projects

For the unschooled and school dropouts

# Learning Support for unschooling · dropout Students in the compulsory Education Phase

www.educerti.or.kr

Learning Support for unschooling · dropout Students in the compulsory Education Phase is aimed to provide various learning support programs and award credits for extracurricular experience for the unschooled or school dropouts who are subject to compulsory education but have difficulties in getting back to schools, thus enabling students to pursue their study and get recognition of academic achievement.

\*\* Relevant grounds: Article 29, 96, 97 and 98-2 of Enforcement Ordinance of 「Elementary and Secondary Education act」

#### **Target**

Those who do not advance to elementary and middle schools aged under 24 years old

#### **Features**



Learning support program which covers various curricula such as educational and supportive curriculum for character building · career path



Provide curriculum which is developed based on online lectures of Open Middle School



Award credits and acknowledge learning experiences such as the GED (general equivalency diploma), various licenses, and diploma from alternative schools as academic achievement

# Recognition of Academic Achievement

Students can gain recognition for their elementary and middle school diploma through educational credential assessment with licenses, learning experience for regular curriculum, and completion of learning support programs.

# Refer to the Homepage for the detailed hours of classes by subject Minimum period for learning more than 4 years for elementary school students, more than 2 years for middle school students Minimum age After Mar. 1st of the year when students in Elementary School are 13 years old, and Middle School students are 16 years old. Hours of classes more than 4,692 hours for elementary school students, more than 2,652 hours for middle school students





The Digital Education Research Center is committed to being at the forefront of education for all by forming a customized and open learning system with the convergence of education and intelligence information technology in order to provide additional learning opportunities and to fulfill the right to education.



Give yourself the opportunity to realize your long-awaited dream of studying!

Digital Education Research Center openschool.kedi.re.kr

Open Middle · High School | 1544-1294

School For You | **1544-1640** 

Online Common Education Courses | 043-530-9164

Online Classes | 043-530-9756

e-School for student-athletes | 1544-1958

Learning Support for unschooling · dropout Students in the compulsory Education Phase | 043-530-9733

### Center for Digital Education Research



