

an appropriate attitude and concept about science among the students, to inspire interests in scientific research, and to improve the pedagogy and its effectiveness in senior high schools.

- B.** Training and preparing students to participate in international Math and Science and in the Regeneron International Science and Engineering Fair. Establishing an incentive system.

**2** Subsidizing “Science Education Projects for Elementary and Junior High Schools”: To improve science education in primary and secondary schools, in SY2022, 61 schools received subsidies for their efforts in science education research, promotion, training, and extracurricular assistance.

**3** “Projects of Scientific Research Training for Senior high School Students” provide school-year-based subsidies for high schools to foster talent in science, discover students with potential in science, and cultivate future scientific researchers.

**4** Opening “science classes” in high schools: Designing and offering science courses where students can learn to do research on their own and be creative. The goal is for students to not only develop scientific expertise but also humanism, and ultimately, become high-quality workers in science and technology who help our country enhance national competitiveness.

**5** Organizing the selection mechanism and entrance examination for France’s “Classes Préparatoires aux Grandes Ecoles”: Between 2006 and 2022, 53 high school students were sent to Classes Préparatoires aux Grandes Ecoles in France as an academic exchange between Taiwan and France.

**6** Planning science education tours for girls’ schools and students: Outstanding, young female science award winners are invited



to high schools to speak to the students so as to spark the students' interest in basic science, to encourage them to learn more about science and plan for a career in scientific research, and to inherit the spirit and accomplishments of their female predecessors.

## D Second Foreign Language Education

To implement the 2019 curriculum guidelines and assist in promoting second language education in teaching, the MOE subsidizes senior high schools to offer elective courses in second languages and covers the registration fees for language proficiency tests for students. Additionally, subsidies are provided to colleges and universities to establish preparatory courses for university-level second language programs, creating an environment conducive to language learning.



K-12 Education Administration

## Digital learning should focus on cultivating thinking skills

Interviewee: **Chang Chi-chung**

Executive Secretary of the Digital Learning Promotion Office, K-12 Education Administration, Ministry of Education



With the advent of the digital age, how teachers teach digital literacy and cultivate the ability to independently use digital tools have become important issues. Since 2021, the MOE has approved the implementation of a Digital Learning Enhancement Plan, which aims to enrich school teaching software and digital content, ensure that teachers and students in remote and non-remote areas have access to learning devices, and utilize technology to enhance teaching and learning effectiveness. The goal is to promote diversified teaching, and through big data, tailor teaching methods to individual student needs.

Chang Chi-chung, Executive Secretary of the Digital Learning Promotion Office of the MOE, emphasized the focus of the digital learning improvement plan has two main aspects. First, it involves changing the teaching mode of teachers by integrating digital tools and resources into the teaching process. Second, it seeks to transform student learning experiences and cultivate a proactive learning mindset, habits, and abilities in

students to use digital technology and resources.

Through the integration of “platforms,” “tools,” and “teaching strategies,” the access of teachers and students to devices and platforms will be incorporated into the teaching process. In the foreseeable future, students will access knowledge not only from books and teachers but also from digital tools and resources such as instructional videos and databases. Teachers, with the assistance of a planned program, will enhance their digital teaching abilities. This will enable them to assist students in using devices, cultivate a mindset of active learning through digital tools, and develop the ability to actively utilize digital resources to solve problems.

Chang said that high school teachers use both public and private platforms such as Talent Network , Junyi Academy, Google, and YouTube for knowledge dissemination, tracking assignments, and understanding student learning performance. They use quiz results to identify weaknesses and tailor personalized teaching plans. Students can also review their