

DEVELOPING STEM EDUCATION: THE POSITIVE EDUCATION OPPORTUNITIES FOR GIRLS

The National Workshop on “Developing STEM curricular for Girls in Vietnam” by the MOET, VNIES, and UNESCO was held on 27th and 28th March at the Vietnam Institute of Educational Sciences, with the participation of Deputy Minister Nguyen Thi Nghia from the MOET of Vietnam, teachers, researchers, managers, as well as the experts from IBE-UNESCO, UNESCO Hanoi, and Malaysia MOE.

The goal of the workshop is to investigate the current situation of STEM education for girls in Vietnam and propose recommendations to develop this area.

Deputy Minister Nguyen Thi Nghia emphasized, “The Education of Vietnam is in the process of radical and comprehensive reform as directed by the Decision No 29. Regarding the STEM in general education, the current curriculum should be flexibly implemented with the development of integrated topics (multidisciplinary, interdisciplinary, and cross-curricular), encouraging schools to provide opportunities for students to participate in research and technology clubs, and organize interdisciplinary competition at district/provincial/national level, etc. On the other hand, the development of a new STEM-focused curriculum, either compulsory or optional, should take place from grade 1 to grade 10; deep specialization with career guidance in the form of electives in grade 11 and 12 (through subjects such as Technology World, Exploring Nature, Informatics, Technology, Natural Sciences, Technology and Career guidance, Applied Computer Science, Mathematics, etc.).”

Deputy Minister of Education and Training said, “The reports in the "Policy Dialogue" session of this workshop helped to better visualize the global picture of STEM education. Also through this workshop, STEM education and STEM education for girls in Vietnam are described in great detail: gender equality policy of the Government, gender issues in the STEM curriculum, textbooks, and awareness of STEM education and gender equality among stakeholders, implementation at school.”

When comparing and contrasting international achievements and experiences, the Vietnamese education sector should continue to identify more specific policies, solutions and roadmaps so that girls and women can become truly equal in the fields of STEM as well as in the economic, cultural and social life.

At the workshop, the participants reached a consensus: To develop STEM education for girls in Vietnam, national surveys on STEM education, STEM support and counseling should be conducted; to develop STEM occupations for girls (awareness, needs, trends, enthusiasm, psychological and social obstacles, etc.); to develop strategies, policies, national action programmes on STEM education and gender equality; to develop STEM integrated curriculum, materials with the connection from pre-school to vocational and higher education; to research and develop the STEM model; to foster

professional development for teachers; to provide support for educational institutions on STEM education and STEM education for girls, etc.

STEM is an advanced, friendly educational model that creates a learning environment to help learners develop all skills in a comprehensive way as the preparation for the technological age. This model combines four separate subjects: Science, Technology, Engineering, and Mathematics, abbreviated as STEM. By combining these areas, STEM education engages students in solving practical problems by applying knowledge, understanding and skills in one or more STEM subjects.

STEM is becoming the trend of modern education across world, especially in developed countries. STEM education employs a core learning approach based on practice and creative experiential activities that help students develop holistically. Especially for girls, studying STEM subjects will help them take more initiative in learning rather than being afraid or avoiding certain areas, thereby encouraging them to have a better orientation when choosing majors for higher education or future career.

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