Young scientist: from hidden abilities to successive researcher

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Introduction

It is recognized that critical and general fields of human activity need experts with high research abilities more and more. Scientific training is currently conducted not only at the university, but also at the school level. Modern society needs to find, identify, train and support gifted children and talented youth as early as possible to get highly qualified experts for science and technology area in future. But some schoolchildren have hidden (or not revealed, not self-recognized) abilities and need to get help to develop them for successive Socialization.

Purpose

To develop scientific background, organization structure and methods of work that combine national experience for talent development on the platform of the Center for Talent Development and the National Technical University of Ukraine ("KPI") that is engaging schoolchildren in scientific activity.

Methods

The vertical "(inter-)scool lab – university – postgraduate studies/experimental site - business" was created at the national, regional and local levels, as well as organizational, informational and educational tools to ensure its elements functioning. The tools are Minor Academy of Sciences of Ukraine and including Kiev Branch and virtual schools of young inventors and young scientists on the platform of the Center for Talent Development and the National Technical University of Ukraine.

Results and discussion

There are 10 thousand groups, clusters, and sections in different directions operating in the system of Minor Academy of Sciences of Ukraine, in which over 150 thousand secondary pupils are involved (where 33,1% are pupils from the schools in rural area). Most of them demonstrate some achievements in particular area, but many students left outside scientific competition, though can have hidden abilities for research. Tools to reveal such hidden abilities are discussed after results of observation of more than 4300 schoolchildren from 8 to 11 grad (22 schools in cities Kyiv, Dnipropetrovsk and Ivano-Frankivsk, as well as 2 schools in Klaipeda, Lithuania).

Keywords:

Talent development, young scientist, intellectual abilities, identification