

# TRIZ SUMMIT 2024



# TRIZ SUMMIT 2024



**PRELIMINARY RESULTS OF THE IMPLEMENTATION OF THE  
INITIAL PHASE**

**OF THE TDS EDUCATION COMMITTEE PILOT PROJECT**

**"VECTOR OF DEVELOPMENT: CHERNYAEVSKY -  
ALTSHULLER".**

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**"TRIZ Developers Summit" Representative in  
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Director**

*(From the cycle - Improvement of TRIZ Educational Practices;  
Regional level, Azerbaijan)*



In the preceding report at the **TRIZ Summit 2023**, the prospects of organizing and executing the collaborative methodologies of **A.O. Chernyaevsky and G.S. Altshuller** were examined.

These methodologies focused on identifying talented students from remote regions of Azerbaijan for participation in the International **TDS Competition, "TRIZ Cup 2024."**

The project involved the initiation of the pilot initiative, titled  
**"Development Vector: Chernyaevsky - Altshuller."**

This presentation at the **TRIZ Summit 2024** offers a review of the preliminary findings concerning the organization and conduct of the pilot initiative's initial phase.

# THE FIRST PART

This section presents the systematic strategy employed to organize the preparatory measures for the pilot initiative's initial phase. It encompasses details of a remote (virtual) meeting held by members of the **TDS Education Committee**, with participation from official representatives of the **State Agency under the Ministry of Science and Education**, regional education authorities, educators, and students (competition participants) from general education institutions across the Republic of Azerbaijan.

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## Category of Coordination for Integrating the Pilot Initiative's Initial Phase:

- Knowledge Management

- Development of provisional infrastructure to facilitate the organization and execution of the pilot initiative's initial phase as part of the **International TDS Competition, "TRIZ Cup 2024,"** at both the national and regional levels.



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## S-CURVE OF SYSTEM DEVELOPMENT:

### Phase 1

**Preliminary Findings from the Implementation of the Initial Phase  
of the Pilot Project of the TDS Education Committee  
"Development Vector: Chernyaevsky - Altshuller"**

**(Part of the series: Advancing TRIZ Educational Practices; Regional Level, Azerbaijan)**



# **TRIZ Developers Summit Education Committee Recommendations**

## **System Selection:**

Development of the Information and Learning System.

## **Topic:**

Organization of infrastructure for the implementation of the initial stage of the pilot project at the central and regional levels of the educational system

## **Systems Consideration Aspect**

Organizational and Structural

## **Basic Parameters:**

Central and regional regulation of management processes in the pilot project organization;

Presence of an external regulator of central and regional levels;

Representation of an element of external regulator in the period of organization of the management infrastructure;

;



## **Accelerating the integration of central and regional stakeholders**

**Determination of the main parameters for regulating the management processes of the committee's activities and selection of the main parameter for this stage of development**

**-Presentation in the control structure of the external regulator element:**

### **TDS Education Committee**

**- Determining the leading activity at this stage:**

**Coordination of the activities of the central and regional levels of the educational system on the organization of the pilot project by representatives of the TDS Education Committee in the field;**

**- An introduction to the IRR of this activity;**

**Decentralization of management activities on the organization of the pilot project in the field;**

**The system is in the early stages of development:**

**Leveraging existing infrastructure resources:**

**Center Level:**

**State Agency for Preschool and Secondary Education of the Ministry of Science and Education of the Azerbaijan Republic**

**Regional level:**

**Regional Education Departments of the State Agency for Preschool and Secondary Education**

**Association or commitment-regulated cooperation with currently leading relevant structures in the field of TRIZ educational practices:**

**TDS Education Committee**

**Institute of Education of the Ministry of Science and Education**

**NG Creators Club**

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## Center Level:

### State Agency for Preschool and Secondary Education of the Ministry of Science and Education of the Azerbaijan Republic

- Submission of an official letter (sample letter) to the Ministry of Science and Education on provision of organizational and informational assistance to TDS representatives in Azerbaijan to conduct the pilot project;
- Negotiations with the official executors of the letter (apparatus of the State Agency of the Ministry of Education and Science) to create appropriate organizational support to attract to the contest students from the regions of the country where the graduates of the Gori Educational Seminary carried out their activities, as well as students from general educational institutions of Baku city, whose graduates were TRIZ Masters;
- Appeal of the curator of the Ministry of Education and Science on the organization of the competition to the leadership of the regional departments of education of the republic to determine the representatives-coordinators of the departments in the field;

## **Regional level:**

### **Regional Education Departments of the State Agency for Preschool and Secondary Education**

Identification of coordinators (official representative of the regional education department) on the part of regional education departments for the organization of the competition in the field;

Negotiations between TDS representatives and each of the coordinators of regions to clarify the terms and conditions of the competition and, in particular, the terms and conditions of the pilot project;

Conduct of a number of actions on the part of representatives of regional departments of education to identify and attract general education institutions of the regions that meet the conditions of the competition;

## **The stage of actions of virtual groups in organizing the contest was as follows:**

-Virtual group of the State Agency level of the Ministry of Education and Science provided regional education representatives with information on the conditions of the competition, deadlines, etc.;

Representatives of each region identified general education institutions that meet the conditions of the competition and participants - organizers of the educational institution - deputy director (organizer), teacher (coordinator). These representatives, respectively, after consultations with class teachers and heads of methodological units of the educational institution, identified students - candidates for participation in the competition;

Thus, after clarification of all participants, a regional virtual group was created, where information of organizational and methodological nature was posted and discussions among participants were held.

**Association or commitment-regulated cooperation with  
currently leading relevant structures in the field of TRIZ  
educational practices:**

TDS Education Committee

Institute of Education of the Ministry of  
Science and Education

TDS Education Committee

**In order to promptly respond to the organizational support of the competition in the field, a virtual group at the level of the Ministry of Education and Science was established on the recommendation of the Ministry of Education and Science:**

- representative of the State Agency for Preschool and Secondary Education of the Ministry of Science and Education (responsible person, general supervisor of the competition);
- representative of Baku City Education Department (responsible supervisor, supervisor of general education institutions, graduates of which are TRIZ Masters); Representatives of Regional Education Departments (responder, local competition coordinators),
- representative of TDS in Azerbaijan;

One of the defining moments of virtual groups activation was the organization of a meeting (**ZOOM Meeting**) of all contest participants (students, teachers, representatives of the Ministry of Education and Science - apparatus, regions) **with TRIZ Masters Natalia Rubina, Pavel Amnuel.**

Experts, taking into account the criteria of age psychology, familiarized the participants with the basics of the methodology and the possibilities of simplified use of TRIZ tools in writing papers

## **Institute of Education of the Ministry of Education and Science of the Republic of Azerbaijan**

Preliminary consultations with **Gumeir Akhmedov, Academician of the Russian Academy of Education**, on the selection of participants of the pilot project of the contest were held, taking into account the methodological recommendations of both research scientists on the study of **A.O. Chernyaevsky's** heritage and the history of Gori Seminary, and experts, specialists of TRIZ Education of the TDS Education Committee;



## **Accelerate integration of central and regional stakeholders; ICR**

**(certain components, selectively) of this activity:**

### **Decentralization**

The virtual groups of each participating region at the level have been created accordingly:

- representative of the Regional Department of Education;
- representatives of participating educational institutions (deputy director of the educational institution - organizer;
- teacher-coordinator);of the students participating in the competition;
- TDS representative in Azerbaijan;

## Representation in the control structure of the external regulator element:

### TDS Education Committee

After the organization of preliminary remote information support by the representatives of the TDS Education Committee with the coordinators of the regions, the possibility of preliminary theoretical support about the conditions of the competition directly on the spot (visit of the TDS representative to the regions of the country that submitted their participants to the competition) was agreed.

### Determining the leading activity at this stage:

Coordination of the activities of the central and regional levels of the educational system on the organization of the pilot project by the representative of the TDS Education Committee in the field;

Conducting preparatory seminars among the contest participants to familiarize them with the terms and conditions of the TRIZ Education competition in order to provide the TDS Education Committee representative (during their stay in the regions) with additional information on the results of the **ZOOM Meeting** with TRIZ Masters and on the practice of group project-research works of students in the run-up to the previous competitions (summary of the previous instructional webinars of the TDS Education Committee);

## Second part

In this part of the presentation the participants of **TRIZ SUMMIT 2024** are offered a comparative analysis of the preliminary presentation of the vision at the level of System Operator (**TRIZ SUMMIT 2022 Presentation**) and the results of the initial stage of the initiative (**February-April 2024**) to determine the **effectiveness and significance** of the pilot project implementation with subsequent recommendations of the TDS Committee for the preparatory period of the next competitions of the involved regions of the **international TRIZ community**.

Recommendations will also be presented, both by research scholars of A.O. Chernyaevsky's legacy and graduates of Gori Seminary, and by experts of the TDS Education Committee for popularization and formation of cognitive motivation among the contest participants during the preparatory seminars on **TRIZ Education** methodology.

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**Category of integration coordination of the initial phase of the pilot project:**

**Knowledge Management**

**System Operator**

**A definite component of systems development:**

**PRELIMINARY RESULTS OF THE  
IMPLEMENTATION OF THE START-UP  
PHASE OF THE TDS EDUCATION  
COMMITTEE PILOT PROJECT**

**"VECTOR OF DEVELOPMENT: CHERNYAEVSKY - ALTSHULLER".**

***(From the cycle - Improvement of TRIZ Educational Practices; Regional level, Azerbaijan)***



For purposes of substantive consideration of the question corresponding to the topic of the presentation, it is possible to separate from the general table of the System Operator ( **Annex 1**) the section **Subsystem;**

Further, pre-determined information on the results of the previous activities of the TDS Education Committee is entered into each **branch of the subsystem** by the established ratio.

**Allocation  
from overall  
System Operator  
section  
"SUBSYSTEM".**

## Past Subsystems

Unsystematic use of knowledge content (unit of pedagogical information) due to lack of certain skills and methods; Lack of concepts of pedagogical criteria;

## Subsystem

Learning implementation possibilities pedagogical methods of graduates Gori Seminars and TRIZ Pedagogies taking into account knowledge resources and availability specialists in in this direction

## Future of the Subsystem

The symbiosis of past practices of Gori Seminary graduates with the TRIZ-Pedagogy, Digital Education, etc. through the newly created social-psychological, methodologically grounded relations between the Methods of Gori Seminary, School of TRIZ-Pedagogy, Digital Education etc. taking into account ethnological, national aspects of a particular country. Azerbaijan;



**Comprehensive Systems Analysis, Transformation and Forecasting Assignment Combining the objects and subjects of a video for inclusion in a subsystem.**

For a certain correlation with the table presented above, we also offer an example of project-research activity during the preparatory period of writing the works of the participants of general education institution No. 4 of Lankaran city.

**Lankaran pilot project "VECTOR OF DEVELOPMENT: CHERNIAEVSKY-ALTSHULLER" of the International TDS Competition "TRIZ Cup 2024".**

**Nomination:**

Video TRIZ Tools Category:

15-17 years old

**Official representative of Lankaran Regional Education Department:**

Regional Competition Coordinator **Gurbanova Hijran Hijran**

**Counselor:**

**Lecturer of Lankaran State University, researcher of pedagogical activity of Teymur Bayramalibekov, famous enlightener of Azerbaijan, graduate of Gori Educational Seminary.**

**Prof. Yadulla Agazadeh**

**Team leader of a group of regional contestants:**

Deputy Director of School No. 5 of Lankaran city. **Jafar Fatullaev**, director, scriptwriter

**Coordinator of the group of contestants:**

**Elena Sverchkova**, teacher of school No. 4

**Bidder:**

**Akshin Alizadeh**, a student of school № 4 of

Lankaran, **in the role of T. Bayramalibekov:**

**(video clip):**

Honored Artist of the Azerbaijan Republic **Mirzoyev Sujatdin**, State Drama Theater, Lankaran city.

**Operator:**

Lider V\S Lankaran city **Ahmedov Asaf**

In accordance with the theses at **TRIZ SUMMIT 2023**, the contestants from certain regions of the country were offered to selectively use (partly using the definitions of specialists) TRIZ methodological recommendations in order to increase **cognitive motivation** among students, in this case, among the candidates of the pilot project of the contest, which included:

**As an example to overcome psychological inertia (formation of cognitive motivation) at the meetings all the participants of the pilot project were offered to familiarize themselves with the analysis of the**

**Genrikh Altov's story "Icarus and Daedalus"**(presented at previous TDS webinars)

**Annex 2**

## Solving problems on psychological inertia

Psychological inertia is a psychological effect that leads a person to make decisions according to an inertia vector under conditions of monotonous activity, limited/over-saturated information, increased speed of information presentation, abrupt change of the aspect of object consideration.

Exercises:

recognize an object from a description;

learns to ask questions to identify an object by its properties;

## **Combining objects and subjects of a video clip for inclusion in a subsystem.**

Exercise:

Find what's missing, name the remaining system;

define an unnecessary object of a video clip by different

parameters; define an object by its functions;

mentally complete the object with the missing elements.

## **Systems change over time.**

Exercise:

to restore the stages of the temporal process; on the

contrary - to break the process into separate stages;

**Comprehensive assignment on analyzing, transforming and predicting the development of systems.** ( Past, Present and Future of the Magic Garden) Exercises: ability to formulate the functions of systems;

highlight undesirable effects; formulate

contradictions;

formulate an IRR;

Use techniques to resolve contradictions;



## **FANTOGRAM**

### **FANTASY TECHNIQUES:**

- increase, decrease;
- move forward in time, move backward in time;
- separate the function from the object;
- Change the relationship between objects and the environment /including environment replacement;

The synopsis of the video in the form of a poetic plan suggests a brief presentation of the resumption of one of the educational initiatives of Teymur Bayramalibekov, a famous Azerbaijani educator of the beginning of the last century, a graduate of the Gori Educational Seminary.

The research of T. Bayramalibekov in the field of cultivation of medicinal herbs and garden flowers (crossing variations, etc.), corresponding to the climatic conditions of the city of Lankaran at the beginning of the last century, is taken as a basis.

The participants of this nomination were supposed to prepare a video clip reflecting the possibility of development and realization of the initiative of a Gori Seminary graduate by means of simplified TRIZ tools (TRIZ Masters and experts during the meetings took into account the presentation of recommendations taking into account the age psychology of the contest participants),

## Video title

### "The Magic Garden."

(In one of the country's southern cities)

#### Task:

The video clip is supposed to show Gori Seminary alumnus Teymur Bayramalibekov interacting with children from the orphanage in the Lankaran region's present-day Flower Garden, which he created in his time.

## **Contradiction:**

Due to the long passage of time, a meeting between the Enlightener and the children is impossible, due to the absence of the Enlightener and the Garden.

## **Resolution of the contradiction:**

Participation in a video of an actor in the character of the Enlightener at the supposed site of the Garden from the past

( near the educator's home) communicates with students from the Children's Home near his place of residence ( now preserved).

**Vepole** field (Spatial field of imagination, climatic conditions, sensual touch, etc., close to the period of the past, close to the concept of "Here and Now"). Whether the children see, feel the presence of the Teacher, or whether they imagine that he is with them at the present time;

## **Solving tasks for psychological inertia; Cognitive motivation.**

Changing the story over time

### **Phantogram; Imagination techniques ICR**

#### **Synopsis:**

The actor in the character of T. Bayramalibekov observes the children from the Children's Home and then communicates with them in the classroom, explaining to them the expediency of reviving the Magic Garden- The students could provide themselves and their neighbors with valuable types of herbal remedies.

Meanwhile, the contestant Akshin demonstrates to schoolchildren the possibility of creating a new look and image of flowers of "Garden from the past" by T. Bayramalibekov, unknown plants of "Magic Garden" of the future by partial use of a certain mixed methodology of drawing images.

The children of the Children's Home, inspired by the idea, and echoing their mentor ( the actual residents of the Children's Home of mixed type of the city.

Lenkoran), draw, in their mind, abstract Magic Medicinal and Garden Plants.

# Introduction

**by the established ratio to each branch of the System Operator  
subsystem (Appendix 1) of pre-determined information on  
the results of the previous activities of the Education Committee**

## Past Subsystems

Non-systemic use of knowledge content (unit of pedagogical information) due to lack of certain skills and methods; Lack of concepts of pedagogical criteria;

**Participants of a number of regions of Azerbaijan of the pilot project**

**"Development Vector: Chernyaevsky-Altshuller"**

**TRIZ Cup 2024 International TDS Competition**

**have a general idea of the significance of pedagogical activities of the Gori Educational Seminary graduates and TRIZ theory methodologies**

## Subsystem

Exploring the feasibility of implementing pedagogical methods of Gori Seminary graduates and TRIZ Pedagogies with taking into account knowledge resources and availability of specialists in this direction in Azerbaijan

**Activities of the TDS Education Committee in the Republic of Azerbaijan in this direction ( period 2016-2024).**

**The full version is presented at the sessions of TRIZ SUMMIT 2022-2024.**

## Future of the Subsystem

Symbiosis of past practices of Gori Seminary graduates with TRIZ-Pedagogy, Digital Education, etc. through newly created socio-psychological, methodologically grounded relationships between the methods of Gori Seminary, TRIZ- Pedagogy school, Digital Education, etc. taking into account ethnological, national aspects of a certain country. Azerbaijan;

**Preliminary results of the organization and implementation of the initial stage of the pilot project: "Development Vector: Chernyaevsky-Altshuller".**

**TRIZ Cup 2024 International TDS Competition**

*The full version is submitted for the TRIZ SUMMIT 2024 session.*

## Conclusions

**Summarizing the results of Parts 1 and 2 of the presentation to provide recommendations from the directed activities of the TDS Education Committee in implementing the initial phase of the pilot project, the following is suggested:**

The experts of the TDS Education Committee, taking into account the **critical** approach and further thematic structuring and optimization, to take into account the primary results of the initial stage of the pilot project implementation, with partial use of TRIZ tools application methods: System Development Line and System Operator;

TDS Education Committee experts to continue actions for the implementation of the 2nd and 3rd phases of the pilot project **"VECTOR OF DEVELOPMENT: CHERNIAEVSKY-ALTSHULLER"**; (Annex 3)

TDS Education Committee experts to determine the prospects of institutional development of the initial stage of the pilot project, which, after certain additions at the level of organizational and methodological support, has an opportunity to be a self-organizing system at this level, with further extrapolation to the international TRIZ community during the **International TRIZ Competition "TRIZ Cup"**;



The peculiarity of participation in the pilot project was to explain a certain period of activity of the enlighteners of the Gori Educational Seminary, as well as the conditions of the competition and to familiarize with TRIZ tools and methodology in the **national** language with subsequent translation (most of the participants do not speak Russian), which indicates a significant expansion of the geographical and linguistic space of the participants in the country;

It should be noted that, as in the previous presentations, the social significance of the presentation for the international TRIZ community lies in conducting preliminary research by representatives of the TDS Education Committee in the homeland of the author of TRIZ theory Genrikh Altshuller in the Republic of Azerbaijan;

For the first time in the history of TDS International Competition "TRIZ Cup", with the assistance of the TDS Education Committee, students (holders of the Diploma of the competition "TRIZ Cup 2024") of the general education institution No. 44 of Baku city, whose alumnus was **Genrikh Saulovich Altshuller**, participated in the competition;

After submitting the works for the contest, a virtual Zoom meeting of TRIZ Master Victor Fey with the students of Baku School No. 193 (holders of the TRIZ Cup 2024 Diploma), where the inventor was an alumnus, was also organized;

Similar meetings on a specific topic - Development Vector: Chernyaevsky-Altshuller - are expected to be held in general education institution No. 1 (**TRIZ Master** alumnus **Pavel Annuel**) and general education institution No. 160 (**TRIZ Master** alumnus **Mikhail Rubin**);

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THANK YOU



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## ANNEX 1



**Excerpts from TRIZ SUMMIT 2022 presentation**

**Level of integration coordination:  
Knowledge Management (Knowledge  
Management);**

**System Operator**

**A definite component of systems development:**

**"Improving TRIZ Pedagogy Practices.**

**in view of**

**Regional Pedagogical Heritage"**

**AZERBAIJAN**

## Past Supersystem

The emergence of a number of self-developing socio-pedagogical systems;

Lack of concepts of systematic pedagogical methods;

## The System's Past

The emergence of a defining socio-pedagogical system.

in a single country;

As an example:

The period of activity of the enlighteners of the Middle Ages;

Partial formation of pedagogical knowledge;

## Past Subsystems

Non-systemic use of knowledge content (unit of pedagogical information) due to the lack of certain skills and methods;

Lack of pedagogical concepts criteria;

## Supersystem

Multidimensional systemic international development of a number of defining pedagogical methods, including the TRIZ Pedagogy system;

## System

Functional-oriented socio-pedagogical system taking into account international educational standards in a particular country;

## Subsystem

Exploring the possibility implementation of pedagogical methods of Gori Seminary graduates and TRIZ Pedagogy taking into account knowledge resources and availability specialists in this direction in Azerbaijan;

## Future Supersystem

Formation of a new socio-pedagogical system using Pedagogical Heritage, TRIZ-Pedagogy, Artificial Intelligence, Digital Education, Waldorf system and other relevant resource bases, applying the level of coordination of integration based on the Office approach Knowledge Management;

## Future of the system

Formation of a new pedagogical environment to empower the development of the socio-pedagogical system using past Pedagogical Practices of Gori Pedagogical System seminaries, TRIZ-Pedagogy, Artificial Intelligence, Digital Education in a certain direction of pedagogical methods Formation of cognitive Motivation among students in a single country;

## Future of the Subsystem

Symbiosis of past practices of Gori Seminary alumni with TRIZ-Pedagogy, Digital Education, etc. through again creating social-psychological, methodologically based relations between the Methods of the Gori Seminary, TRIZ-Pedagogy School, Digital Education, etc. taking into account ethnological, national aspects of a certain country.

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## ANNEX 2



# Analyzing Henry Altov's fantasy story "Icarus and Daedalus"

Basic Fantastic Ideas:

-Journey to the center of the Sun;

-Variation of the Mission of Icarus in the legend;

By what technique they are obtained Techniques

of fantasizing:

-increase, decrease;

-obliterate, disconnect;

-accelerate, slow down;



## **Basic technique: by increasing speed to pass through fire whirlwinds**

-make dynamic / make static

-Change the relationship between objects and the environment /including environment replacement;

-change the quantitative indicator /constant/;

-make universal / limit application;

-make it artificial/natural;

**What role they play in the development of the plot of the story:**

Progressive and to continue at times regressive

**Can you develop an idea and develop the plot of the story**

**based on it:**

**Toward climate change Global warming:**

**Subsequently, drone ships can discharge or compact the solar space, thus affecting the temperature of a certain space of the planet in different seasons.**

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## ANNEX 3



## Excerpts from TRIZ SUMMIT 2023 presentation

In order to provide a multi-level expert vision and to assess the dynamics of educational achievements during the implementation of the initial phase of the pilot project, as well as for further dissemination of system integration under the above initiative, the establishment of relations for functional cooperation between the TRIZ Developers Summit Education Committee, the Institute of System Projects of Moscow State Pedagogical University (Laboratory of Competent Educational Practices, Laboratory of Humanitarian Expertise and Social Design of Education Sphere) and the Institute of System Projects of Moscow State Pedagogical University (Laboratory of Humanitarian Expertise and Social Design of Education Sphere).

Identify additional stakeholders to transform this initiative of the TDS Education Committee "**Development Vector:Chernyaevsky-Altshuller**" into the resource potential of a certain sphere (TRIZ Education, International TRIZ Cup Competition );