THE COMPLETE INTEGRATION OF TECHNOLOGY EDUCATION IN THE COMPULSORY SCHOOL CURRICULUM

- A CONCEPT OF THE MODERN SCHOOL WITHOUT ALTERNATIVE

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Background

- **Today's society require competencies:**
  - For quick adaptation at the new environments;
  - For managing at the new and unfamiliar conditions;

- **These competencies include:**
  - Communication skills,
  - Solving problem skills,
  - Procedural knowledge,
  - Collaborative skills,
  - Skills for innovative and creative activity
  - ...
• **Traditionalistic education** *(today predominantly in Europe)* - *does not achieve these competencies;*

• *We need a radical change of paradigm and approaches for transforming education system.*
The main problems

- **Deterministic human disposition...**
  - These competencies can not be acquired at each stage of development nor in a standard school environment;
  - The development of these competencies leaves left to chance and the conditions of their own living environment of students.

- Education systems only partly respected scientific observations about new paradigms and approaches to education.

- Compulsory education is still a collection of unrelated and decontextualized teaching subjects and areas.
Technology education – the only alternative that is through meaningful concepts, approaches and activities can develop:

- System approach to problem solving;
- Adaptive and anticipatory students’ competences.

Integrative function - the comparative advantage of technology education:

- connect knowledge from different fields in meaningful contents, products and concepts.
Other advantages of TE:

- Students during the process of self-realization acquire a real knowledge, skills, values and attitudes;
- develop their own mental mechanisms which are necessary for the coping with the new circumstances.
Possible solution

- The concept of modern general and compulsory education should start from the points of view:
  - Teaching subjects provide only informations which meaning receive during the meaningful development of services, products and new values of the contents,
  - This development is in fact the technical and technological part of the curriculum.
Concept of the Modern School

Teaching areas

- Math.
- Sci.
- Ling.
- Soc.
- ICT
- Art.
- ...

Evaluation

Student activities - meaningful development of services, products and new values of the contents

(projects, problem solving, field-trips, service learning, designing, construction, production ...)

Technology education (tech. area):
- direct teaching and instructions;
- facilitation and moderation of activities;
- preparing students for the presentation ...

Students’ demonstration and presentation of their own results.

„external world”

Evaluation

Min. time

Max. time

Opt. time
This concept proposes:

- Minimum time for the presentation of educational contents,
- Maximum time and environment for the realisation of collaborative activities,
- Appropriate time for the student demonstrations and presentations,
- Responsible position of technology teacher, as a moderator of the most student activities.
Conclusions

- **Realization of this concept requires:**
  - breaking rooted teaching clichés, especially in the "important" subjects (math, ling, sci ...),
  - radical transformation of teachers' awareness about their own role in the development of student competences.

- **This concept provides:**
  - special role of the technology teacher as the main facilitator of activities,
  - Integrative role of technical (technology) teaching area in the school curriculum.

- **This is a concept without adequate alternatives for societies that want to be "society of knowledge" and "society of economic prosperity."**
• Creators of the education system and politicians need more information about reality, and ...

• ... the stronger arguments for changes ...

• ... and more courage to changes implementation !!!
• Thank You!