

# 03

## EXAMPLES OF USING NEW TEACHING METHODS, OVERVIEW OF PILOT LECTURES



NEDIA

Team Latvia, PECC «Liepaja State technical school» :

- Sarmite Livdane
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- Madara Mago

- The project helps partner educational institutions to become aware and implement new teaching methodologies that would meet the need of today's youth and allow them quickly and easily acquire knowledge that is needed in today's industry. Also the project helps to create base to cooperation network which enables to make cooperation in designing courses and adapting new teaching methodologies and change information and knowledge. The project results are possible to broaden outside the project partners group too.

# Why modern teaching methods are used?

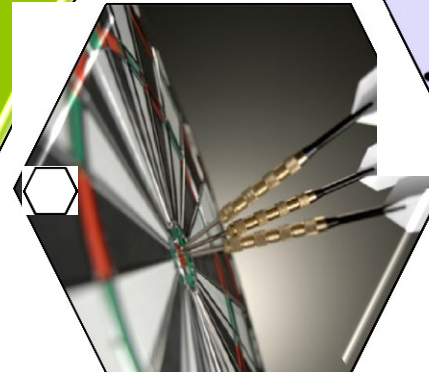


uses modern technology

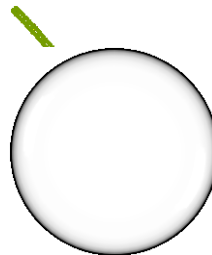
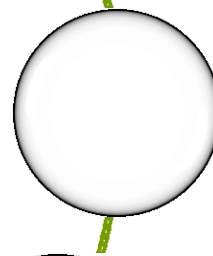
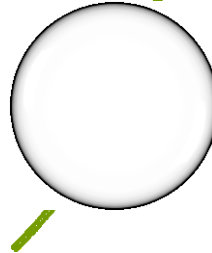
improve teaching effectiveness

students are interesting

education process is modern



# Modern teaching methods are characterized by

-  Use of interactive software
-  Diversity of information display
-  The combination of different methods



# The idea for the video lecture

## Topic

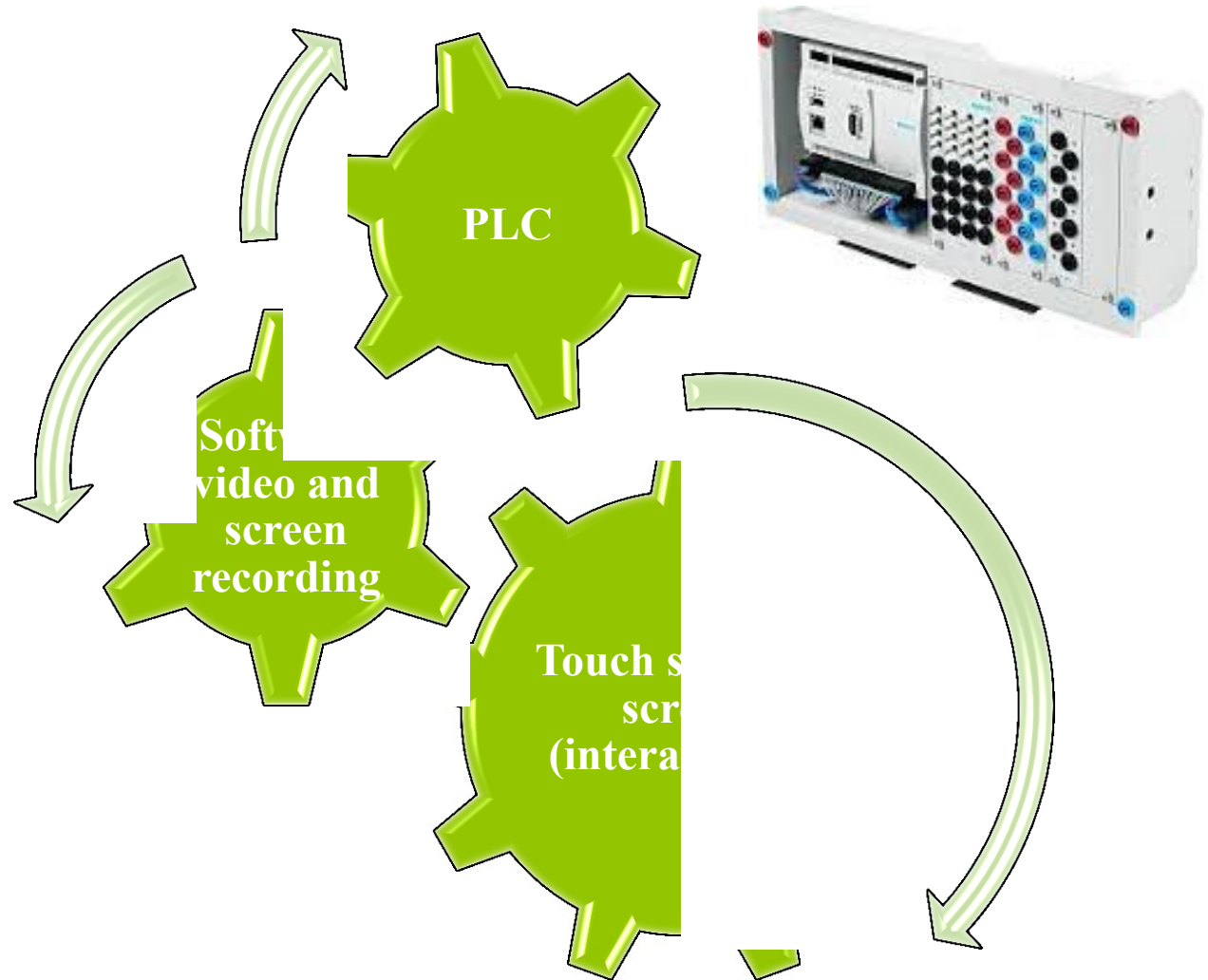
- **Introduction programmable logic controller (further in text -PLC) circuit assembling**

- Use of new technologies

- Combine theoretical material with practical

- Can be used to repeat topic or acquiring remote

# Used technology

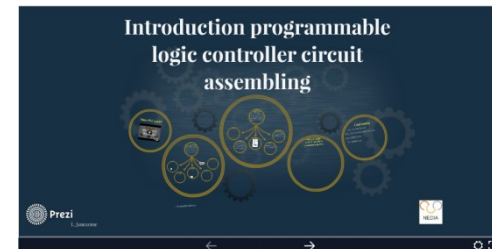
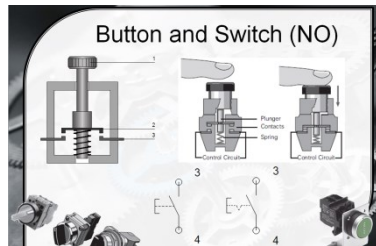


# Learning materials

Interactive material - Introduction to PLC

Teacher presentation

Interactive Introduction are made of programmable logic controller circuit assembling



# Training video

Visa filma 40min 3  

**Project No. 2014-1-EE01-KA202-000490**  
**"New didactical approach  
in mechatronics vocational education- NEDIA"**


 Erasmus+   

  0:05 / 39:25   




# Feedback

- Feedback blank
- Quality research method by questionnaire
- 24 questions




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**REVIEWS FOR THE LECTURE**

Contention	Rating			
	Totally agree	Partially I agree	Partially I disagree	Strongly I disagree
1. Interactive teaching methods are used in training video.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Variety of teaching methods are used in training video.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Technology capabilities are widely applied in training video.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Training videos can be used in further studies.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Training videos can be used in teaching topics learning remote.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Training videos are good way of providing theoretical knowledge.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Training videos are a good way of providing practical skills.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Training videos can be used in any country.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Training videos are focused on the acquisition of new knowledge.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Training video leads to an deeper interest in this topic.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Training videos are linked to the production of everyday life.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. The theme has been developed good theoretical study material.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. The theme is set out clearly.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Regular communication with students.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. There are clearly familiar with topic.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. Teacher explanations are easily understandable.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Teacher are clearly familiar with topic.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Teacher holds the attention of students.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. I prefer individual work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. I prefer teamwork.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. I prefer practical work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. *Training videos could be used for the company's employees.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



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Contention	Rating			
	Totally agree	Partially I agree	Partially I disagree	Strongly I disagree
23. *Companies are interested in the training environment.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24. *Companies are willing to work out the tasks related to the actual production.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Commentary about:**

✓ training video: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

✓ training topic: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

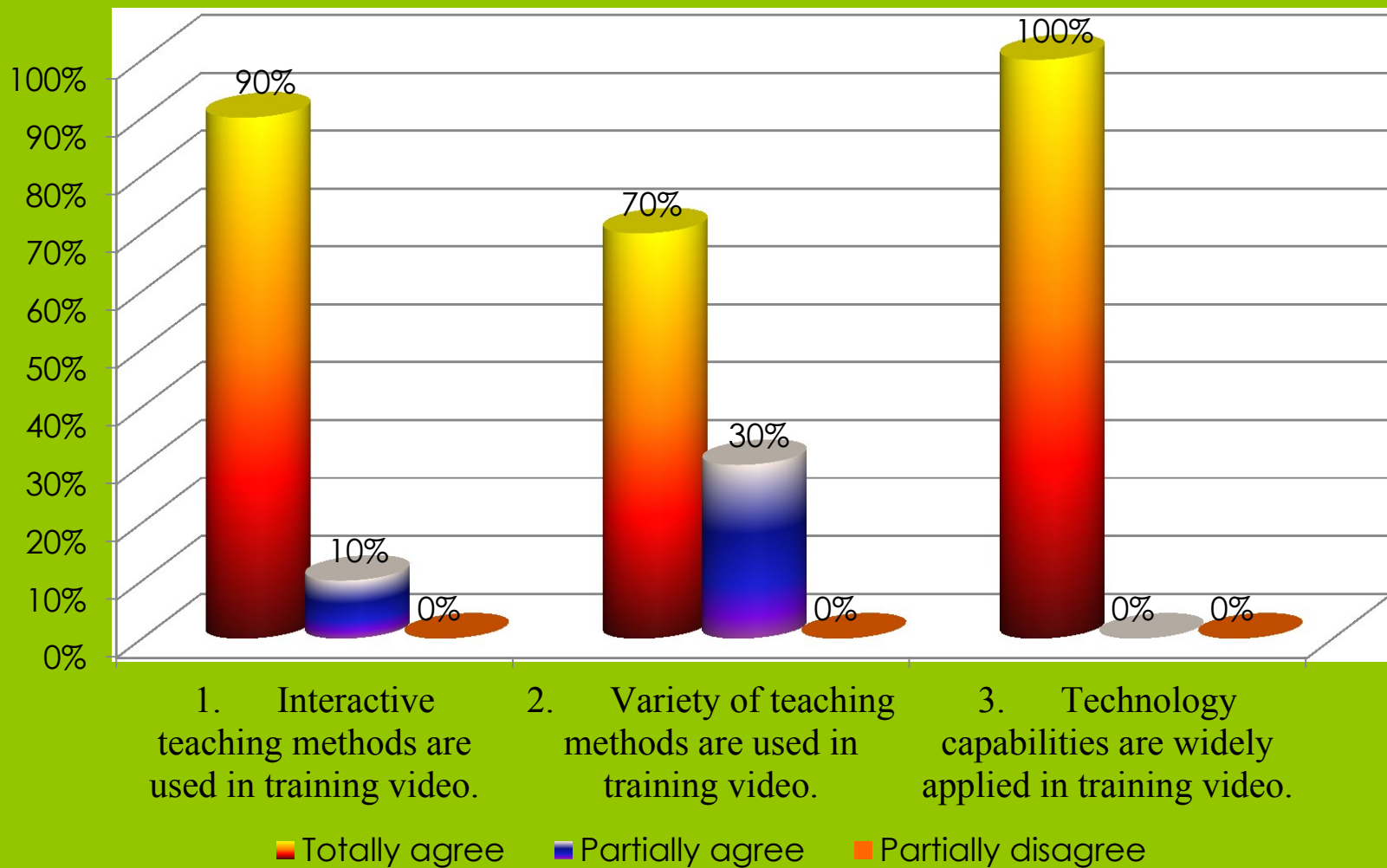
✓ teaching methods: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

✓ teacher work: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

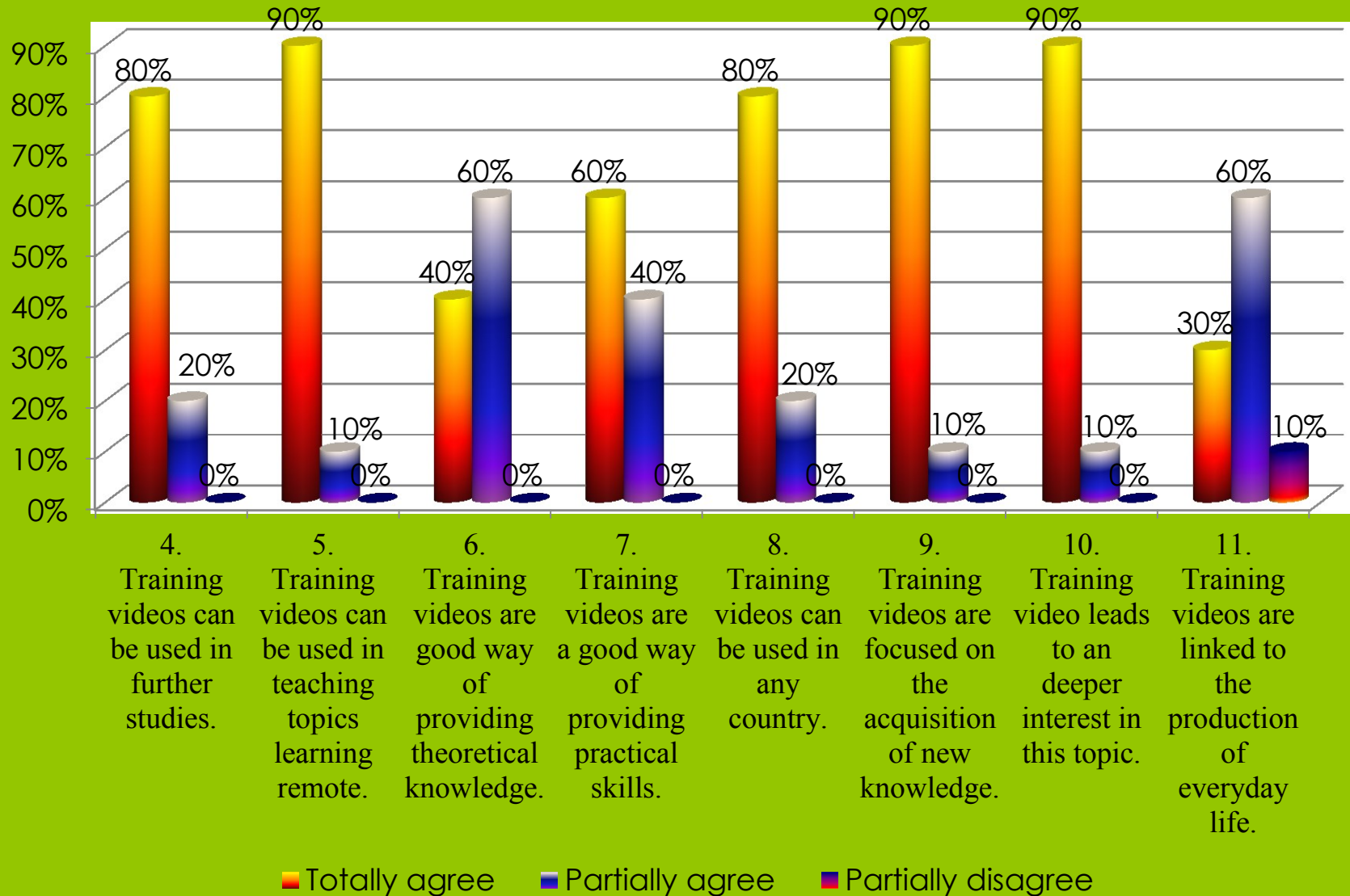
\* Completed by representatives of the companies



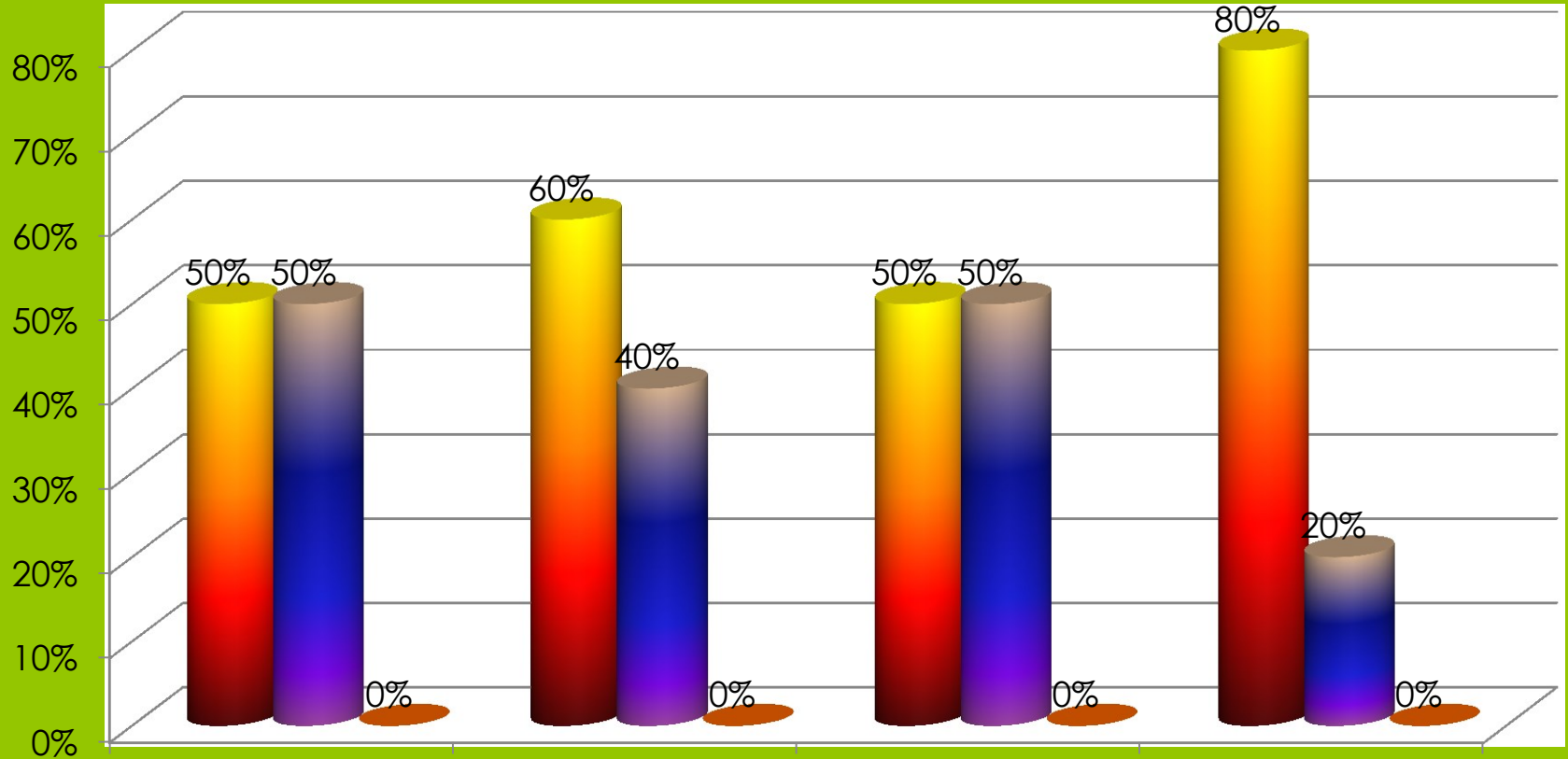
## TEACHING METHODS AND TECHNOLOGY IN TRAINING VIDEO



## TRAINING VIDEO



## THEME AND LESSON ANALYZE



12. The theme has been developed good theoretical study material.

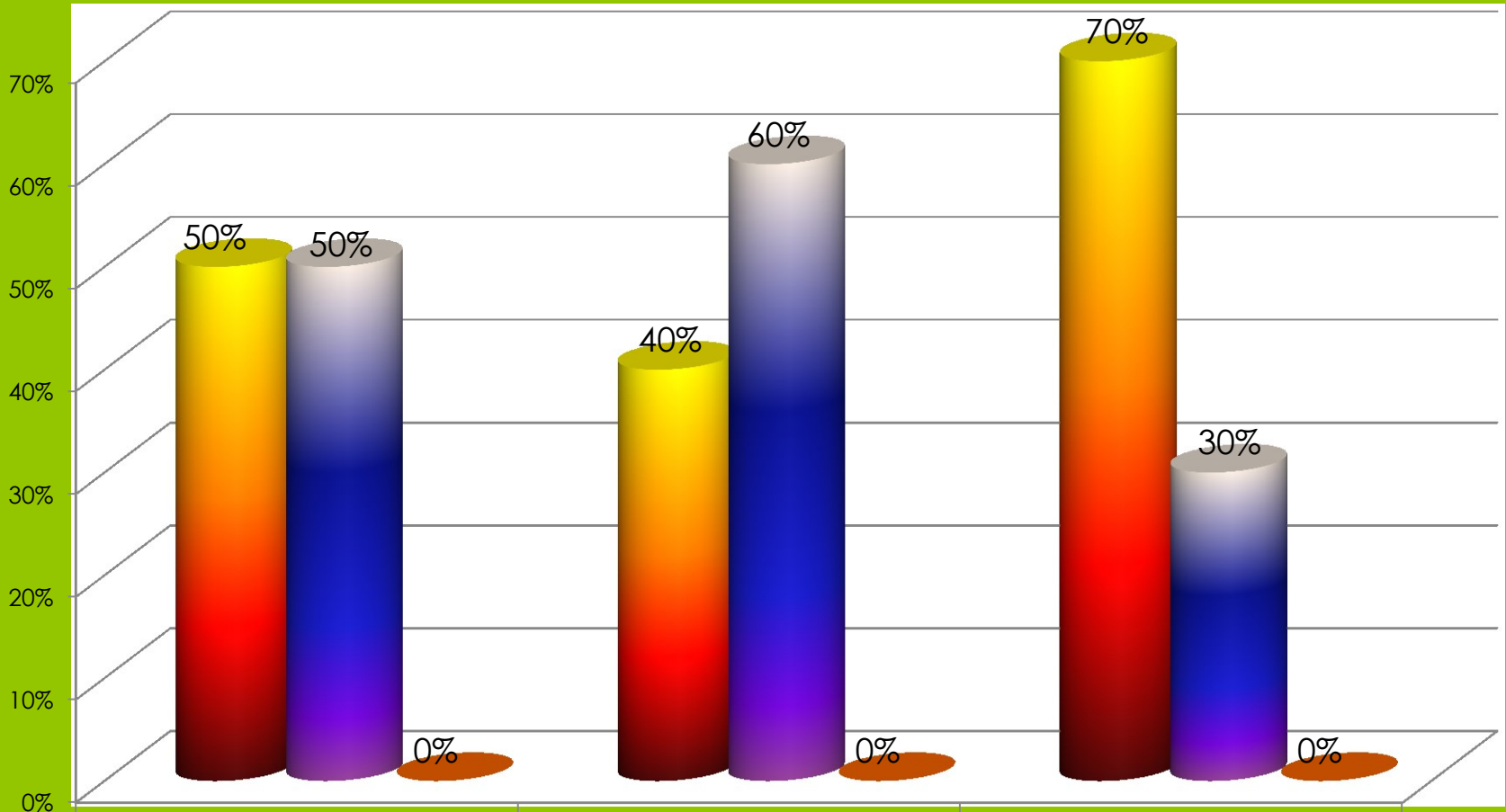
13. The theme is set out clearly.

14. Regular communication with students.

15. There are clearly familiar with topic.

■ Totally agree   ■ Partially agree   ■ Partially disagree

# TEACHER WORK



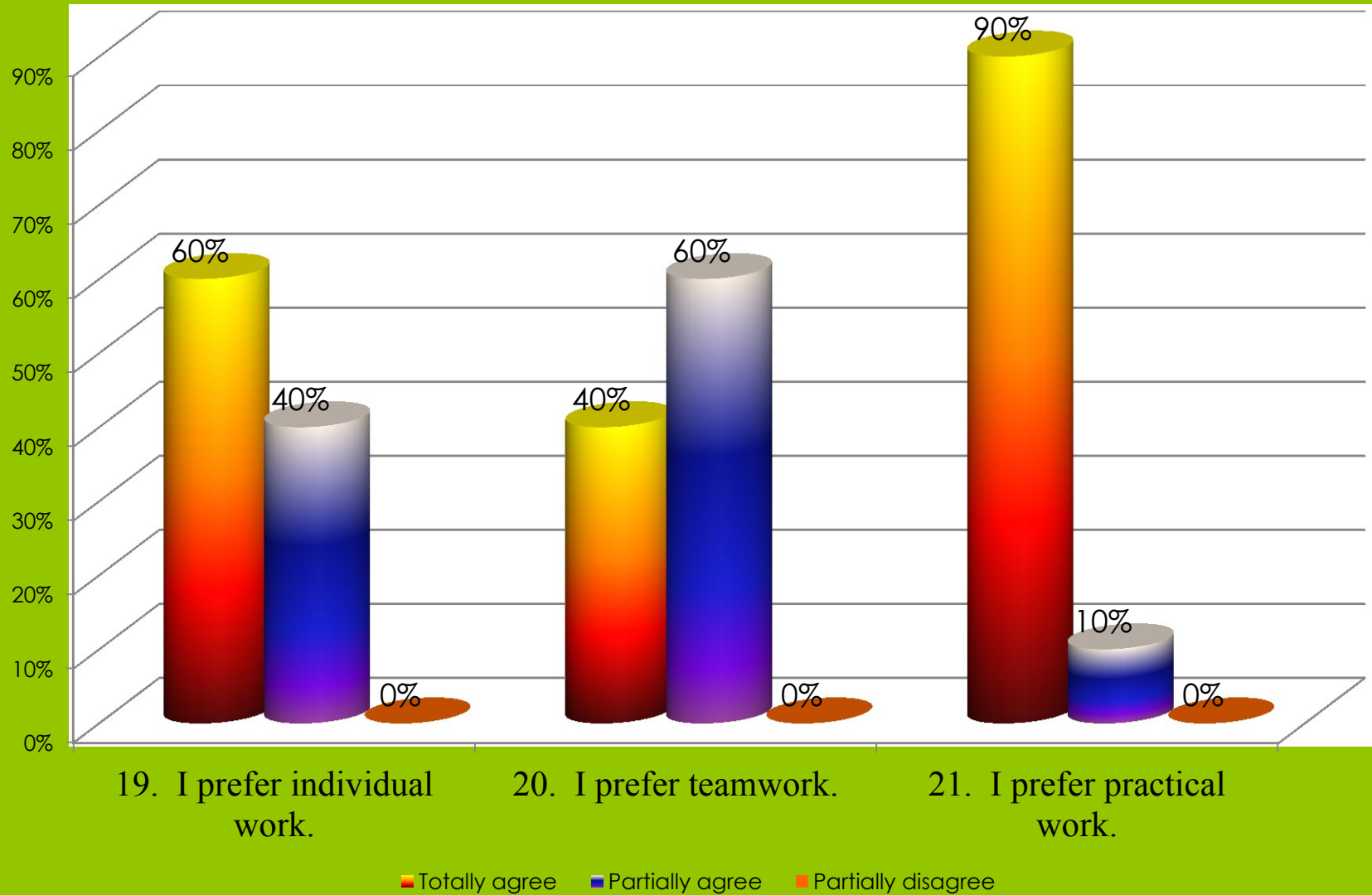
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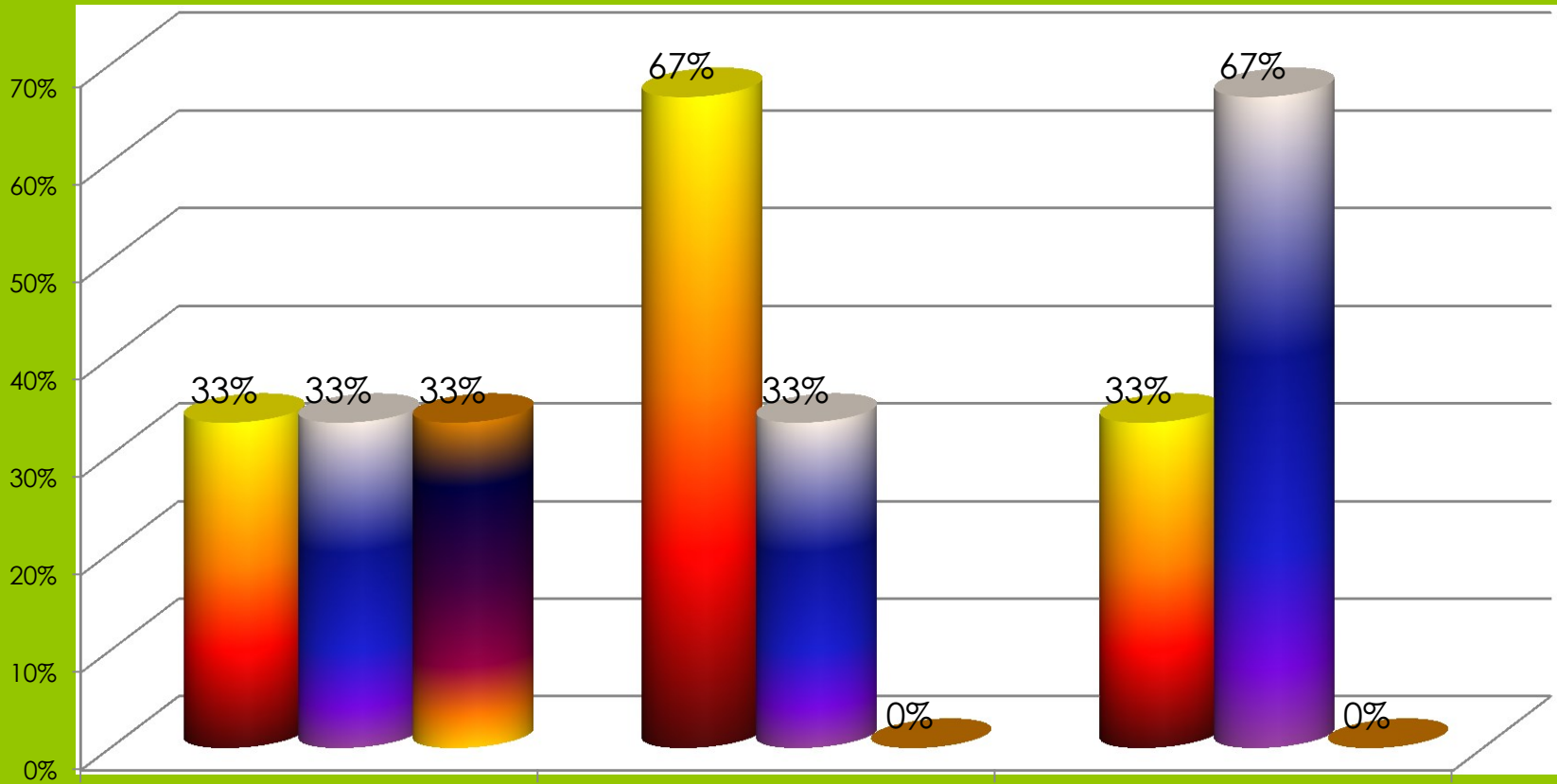
18. Teacher holds the attention of students.

Totally agree Partially agree Partially disagree

# WORKING STYLE ANALYSIS



## COMPANY VIEW



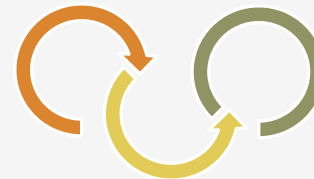
22. \* Training videos could be used for the company's employees.

23. \* Companies are interested in the training environment.

24. \* Companies are willing to work out the tasks related to the actual production.

■ Totally agree   ■ Partially agree   ■ Partially disagree

# 05 COOPERATION BETWEEN NETWORKS



NEDIA

Team Latvia, PECC «Liepaja State technical school» :

- Sarmite Livdane
- Liga Jaunzeme
- Madara Mago





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# Cooperation and Network?

# Cooperation network core

Estonia

Finland

Latvia

IMECC OÜ,  
Innovative  
Manufacturing  
Engineering  
Systems  
Competence Centre

Tallin Industrial  
Education Centre

Machine  
Technology Centre  
Turku

Raisio Regional  
Education and  
Training  
Consortium

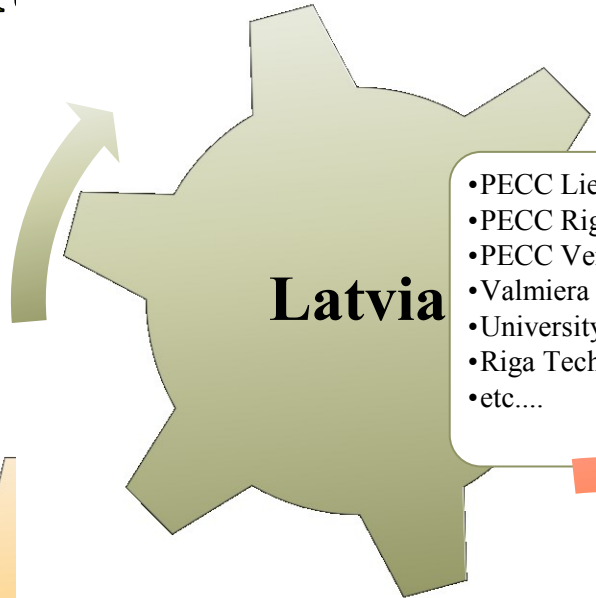
Liepaja State  
Technical School

# Why do we need cooperation network?

- Mostly it is important to improve:
  - Study programs;
  - Education content;
  - Study placement process;
  - International cooperation between schools;
  - Cooperation between different level education institutions;
  - Study process quality;
  - Different education method use in study process;
  - Experience exchange.

# Finland - Latvia - Estonia

Lithuania  
Sweden  
Norway  
Germany etc..



- PECC Liepaja State Technical school;
- PECC Riga Technical college;
- PECC Ventspils Technical school;
- Valmiera Technical school;
- University of Rezekne;
- Riga Technical University
- etc....



- Machine Technology Centre Turku;
- Raisio Regional Education and Training Consortium
- etc...



- PECC Tallinn Industrial Education centre;
- Tallinn University of Technology;
- Narva Vocational training centre;
- Voru county vocational training centre;
- University of Tartu;
- etc...

# Aim of creating cooperation network

- Present project NEDIA results and prepared material examples, get feedback and recommendations;
- Create online platform (forum or interactive environment) for mechatronics study process improvement between network participants, where they can exchange ideas, study materials, latest industry news and other schools where are mechatronic specialization and invite industry professionals to evaluate it;
- Create plan, how present NEDIA results and future plans for study process improvements to all interests after project is finished;
- Create international competition between mechatronics students, engage main industry specialists and companies;
- Create regular international placement opportunities by using ERASMUS + or other projects;
- Create open lectures where interests; other teachers and industry specialists take participation;
- Create experience exchange seminars, videoconferences (online and offline), to exchange good experience examples.

