



## **TOPIC: EXCHANGE OF OLD HEATING INSTALLATIONS FOR NEW, CLEAN AND ECOLOGICAL IN MY AREA OPPORTUNITY OR A THREAT?**

### **METHOD:**

Six thought hats by Edward de Bono.

Working in groups

### **AIM:**

- *ability to analyze information on the advantages and disadvantages of using ecologically clean sources of heating*
- *the ability to present a specific point of view regarding the prevention of air pollution*

### **DIDACTICS:**

- sheets in six different colors in the shape of hats with explanations of the meaning of each color (each color symbolizes a specific way of perceiving the problem, its analysis, searching for various arguments used in the discussion)
  - **yellow** - recognizing the advantages of a given solution
  - **green** - possibilities - what you can do in a given situation
  - **blue** - logical thinking
  - **red** - emotions, intuition, feelings
  - **black** - pessimism
  - **white** - facts

### **WORKFLOW:**

1. Students create groups of 4-5 people and draw cards in six colors prepared by the teacher. Their task is to prepare - debates using the method of six de Bono hats on the subject of exchanging old heating installations for new, clean and ecologically. The debate is to present students' opinions on the fight against smog in their town, but also to show the psychological barrier related to the replacement of the stove. Each group chooses a leader who draws a hat-one of six colors.
2. The teacher places a sheet on the board explaining the meaning of a given color and puts a problem.
3. Discussion in teams - The leader manages the group's work, organizes it, does not dominate, does not impose its views. He makes sure that everyone can express themselves. The leader also makes sure that everyone is working so they prepare their "hat" for discussion.
4. Each group also elects a secretary and representative. Secretary - saves interesting ideas reported while working on the problem being solved. The representative presents the effect of group work in public.
5. Discussion of "hats - representatives" in the class forum, W czasie dyskusji nauczyciel powinien zadbać o to, aby każdy jej uczestników miał do dyspozycji taką samą ilość czasu. Uczniowie nie powinni sobie przerywać i ironicznie komentować wypowiedzi innych.
6. Students who have drawn blue cards write down arguments on the board
7. Summary of the discussion through the blue hat. The discussion should end with a specific result - a conclusion.



8. The teacher will assess the most interesting and convincing arguments at the end of the lesson.

EXAMPLES OF INTERPRETATION OF THE SUBJECT DEPENDING ON "COLOR OF HAT Edward de Bono"

**White: facts**

The fact is that protection against air pollution in our area is insufficient. The facts suggest that there is a great need to reduce pollution from various sources. Still, despite various social and information campaigns, the awareness of methods to reduce pollution is low. It is also a fact that the inhabitants of our area are not fully aware of the threats caused by environmental pollution and have no knowledge how to limit this pollution.

**ATTENTION!!!**

1. "White color" is a conclusion to the lesson that students write in notebooks.

**YELLOW: recognizing the advantages of a given solution**

The most important thing is to be aware of the danger posed by polluted air. The main threats concern health issues, but smog also carries other threats that affect the entire natural environment.

**GREEN: possibilities - what can be done in a given situation, ideas**

The best solution would be to reduce harmful emissions to zero. Under current conditions, this is unrealistic due to the lack of possibilities to eliminate eg cars from traffic. But you can reduce exhaust emissions through less frequent use of the car and more frequent bicycle. You can also try to eliminate old, worn out engines by scrapping. You can definitely eliminate pollution from the burning of garbage and waste.

**BLUE: logical thinking**

- Logically thinking, as people wanting to live in a clean environment, we must start to limit pollution by themselves. Therefore, we should pay attention to what the furnaces in the furnaces, what coal we buy, whether our car does not cause excessive pollution, and whether neighbors and friends adhere to a healthy-sense approach when it comes to environmental protection.

**RED: emotions, intuition (feelings)**

- The most important thing is to have the feeling that we can overcome the smog! We must believe that in the end all people will start using clean fuels and start thinking about others.

**BLACK: pessimism**

Unfortunately, it is impossible to completely eliminate pollution and the process of changing the way of thinking will last a very, very long time. Smog will choke us and we will not be able to do anything about it



because it does not really depend on us.

#### **SUMMARY:**

It is estimated that in Poland, about 3 million old generation heating boilers are used, polluting the air in our country with low emissions, and suitable only for replacement with modern, non-polluting fuels. In addition, many users of these furnaces burn in them not only low-quality fuel, but also rubbish and plastic. In Poland, for years, we have the most polluted air in the European Union.

It would seem that it is enough to change only home heating to greener and the problem will be solved. However, the psychological barrier is a big problem. People think that modern ecological stoves are too expensive to use in a household, and their use of good quality fuels or natural resources such as the Sun or geothermal sources is unprofitable. The users of these 3 million old generation furnaces are not interested in clean air, because they always smoked the cheapest fuel and they see nothing wrong with it. The majority of the household budget for energy is used to heating homes. In addition, many people can not afford to use more expensive ecological heating, not to mention the replacement of a heating installation. Is the replacement of furnaces and boilers really an expense unacceptable for families? Will the investment in clean heating return and is it luxury to breathe with clean air? Can we help them and have a clean air in exchange for them without pollution?

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