7.27 *Science* education with the help of *Media*

Educating science concerning the help of current news of Media referring to it

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Science & Media Group

Abstract

In the last decades, at the beginning of the 21st century high school students turn their back on science more frequently than before, therefore the generation of the community of reliable scientists and experts becomes the elder. The time spent studying science in schools is also decreasing. However, mass-communication, electronic and traditional media plays more and more part in the description and explanation of scientific problems in our time. Media is inundated with questions, facts and rumours in connection with science, therefore imaginary fears, beliefs and superstitions can get into the limelight of interests. Problems like keeping people frightened with radioactivity and the ionizing and non-ionizing radiations is probably the most popular way of making "bad news" (panic) in the mass-media, and they particularly call our attention to the most current tasks in education of the next generations.

In order to help to keep the public informed in a precise and exact way, it's necessary to put natural science into practice in high schools. Our new method of science education could prove the necessity of science taught through the current news of the media. This means students learn by making discussions and corrections of the news.

The Science & Media Project provides the possibility of applying scientific ways of thinking about questions of our environment and life and it also improves critical approach towards new information.

This method is put to practice by real project works, including a lot of fieldwork and reading of papers and scientific literature, enabling the students to discover and solve problems by themselves.

Introductions

The time spent studying science in schools is decreasing according to the tendencies of education in many countries, mainly in Central Europe. Thus the roles of mass-communication, electronic and traditional media become more important in the description and explanation of scientific problems in our time. Some crucial points of these roles are mainly: the spreading fears, beliefs and superstitions. More over some economic or political power can take advantage of this general atmosphere, and influence the general feeling through the media in order to have more profit, usually against the real welfare of the population, and the living environment.

These changes force the democracies of the 21st century to face new challenges. Even the voting, the decision making of the politicians should somehow reflect citizens who are well aware and live in consonance with both their natural and technological environment.

The tensions of different cultures and ethnics nowadays have to be examined and justified not only by social sciences but the natural sciences knowing global environmental problems also.

The high standard of education is one of the most important conditions to help people make established decisions in our quickly developing world.

The aims of Science & Media programs:

Making the students learn more about how the information society works including the possibilities it holds and the risks of it, and as a separate individual of the society help them orientate and make decisions by their own critical sense even in the most significant problems of the society. Developing the

- use of media
- critical approach based on specific, self-sufficient experiences
- communicative competence
- improve team spirits when working in groups, collective projects
- acknowledgment of the facts of science
- scientific way of thinking, and skills of debate

Methods

The primary level of the Science & Media program is the analyzing of current news of mass media in small teams. In this section the participants (students) evaluate and analyze the news in order to identify the most important topics in connection with science and to compare them with each other and examine their circumstances. Studying the chosen area, reading and learning more about it, getting acquainted with facts and main questions of the topic the participants can realize the defaults of the news with the help of some experts (sociologist, scientist) and they can also discover the possible purposes behind them. In this way, they can form their own opinion and after all put it into words. Such a program section could be successfully concluded with a published article written by the team.

Steps:

1. Media monitoring (newspapers, TV, radio, internet)
2. Collecting articles and news (data gathering)
3. Selecting the most important, interesting topic (sorting, defining the similarity and antagonistic elements, defining the misinformation and manipulating points)
4. Brainstorming (searching books, films, experts in connection with the selected topic)
5. Data processing in groups (learning the scientific background)
6. Analyzing the chosen articles in many ways (debate)
7. Planning the further investigation (debate)
8. Field works (making interviews and questionnaires, finding out the effect of being misinformed)
9. Inviting experts (listening to their presentations, asking questions them, arguing with them)
10. Individual summaries, and common discussions
11. Writing manuscript about our suggestions, and results, and opinions
12. Syndicating an article

Results

Science & Media Groups have already been working in schools of Budapest (Hungary) for three years, the number of participating students has reached 50 (7-9 members in each group).

S&M Groups dealt with:

1. Examination of the roles of the press in connection with the nuclear power plant in Temelin (Slovakia).

Publications:

- Temelin és a hétlábú zsiráf (**Temelin and the seven-legged giraffe**)
  Science & Media group, I. Lázár
  *Fizikai Szemle (**Hungarian Physical Review**) 2002. Marc. LII. 3, pp 85.*
- Letters to the editor of some Hungarian daily newsletter (**Students are for science** in *Népszabadság*, **Policy-Media-Science** in *Magyar Hírlap)*

2. Analyses of the presented dramas in connection with science ("Incident", "Copenhagen").

Publications:

- Intellektuális játékok (**Intellectual games**)
  Science & Media group, I. Lázár
  *Fizikai Szemle (**Hungarian Physical Review**) 2003. Marc. LIII. 3, pp 108-109.*

3. Studying the press of the nuclear power plant breakdown in Paks in comparison with other environmental risk factors from that period.

Publications:

- Nem az iskolának (**Not for school**)
  Science & Media group, I. Lázár
  *Magyar Narancs (**Hungarian Orange - weekly**) 2003. Jul. 17. XV. 29, pp 42-43.*

4. Surveying public opinion about the radioactive waste deposition in a small village. (This is under process.)

Conclusion

We believe that there are a lot of possibilities in this program as well as in the case of science education and in the case of media education within these particularly concerning the current-living problems of the society. The involved students obtained several experiences of their own in science and also in the mass media which help them to be a self-sufficient member of society.

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SESSION Ⅶ

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THURSDAY, AUGUST 26

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