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## **E-debate: Using Web 2.0 tools through an open eClass environment to develop a virtual debate in English for elementary school pupils**

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## ABSTRACT

In the present study an innovative method for the development of elementary school pupils' debate skills as well as the improvement of writing skills in the English language is introduced. This model uses ICT and especially the Web in order to increase the interaction not only among the pupils but also between the teacher and the pupils. It is based on a targeted exploitation of some modern Web 2.0 educational tools offered through the environment of an open eClass platform. Several team-working tools are used such as the *blogs*, the *wikis*, the *wall*, the *polls - questionnaires* and the *tag cloud*. Furthermore, the whole educational approach tends to be student-oriented, since the pupils themselves are both the creators and the evaluators of the educational outcomes. The method has been applied on 43 5<sup>th</sup> grade pupils of a model primary experimental school in Greece. Taking into consideration the results of the research, we conclude that the targeted usage of some of the new Web 2.0 educational tools could broaden the existing educational horizons and become beneficial to the development of new skills and abilities on the students' part.

**Key words:** Web 2.0, primary school pupils, e-debate, blogs, wikis, wall, polls - questionnaires, tag cloud

## Introduction

Nowadays, students are much more familiar with technology compared to the students of previous generations. They grow up using computers, television, TV-games and the Web in every aspect of their life. As a result, they are more receptive concerning the use of modern technologies within an educational context.

The diffusion of knowledge in a school class and the interaction among pupils can be boosted through the usage of the Web 2.0 educational tools. These new ICT tools have offered us the possibility to break educational barriers, since nowadays we have the opportunity to change the way we tell a story, the teaching method in a classroom or the teaching for individual learning (Alexander, 2006). A large variety of specialised applications can be used simultaneously or in a complementary way with other educational tools in a class, provided that the pupils have simultaneous access to them. Especially, for young ages Internet safety should also be provided through a children-friendly network and the careful usage of the computer school lab. The fact that the use of Web tools is also available in the Greek language results in making the access to them easier, especially for children of young ages. The effective usage of Web 2.0 tools can lead to faster and deeper diffusion of knowledge in a classroom. Furthermore, a positive interaction and exchange of knowledge and ideas can be easily achieved.

A very important Web 2.0 educational tool is the *blogs*. By using it a teacher or a student can present a project to the entire classroom. Then, the students who are members of this particular blog can comment or write their opinion on the presented subject. Research studies have shown that educational blogs can be used efficiently by students as a means of research, interaction, and social learning, provided that they are carefully designed and implemented (Aggelaina & Tzimogiannis, 2010).

Another, yet very popular Web 2.0 tool is the *wall*. According to relevant research studies (Elkhart & Madden, 2007), the wall is one of the most commonly used tools in social networks. With this facility, users who belong to the same network can exchange live messages and opinions. Every message which is written on the wall is automatically visible to all the members of a particular group. The wall can be used in education for online getting – giving help and exchanging opinions.

The *wikis* are considered to be one of the most effective collaborating educational tools. They enable students to write, edit and correct a text. All the changes of the text can be easily viewed and older texts can be recovered through the “wiki history” option. In this way, a text can be enriched and reviewed by all students. For a successful application of wikis in a classroom, a very careful design, creativity and enthusiasm are needed by the educator, along with a very well documented scenario (Ferris & Wilder, 2006).

The *tag cloud* is also a very popular Web 2.0 application. It is a “table” that presents the most commonly used words in a forum or a blog. The more a word is used, the bigger its font size in the table becomes. Through this procedure the students can get a quick idea of the most frequently talked about subjects in the forum. Research studies (Sinclair & Cardew-Hall, 2008) have shown that the wider a subject is, the more students visit and consult the tag cloud to get ideas.

Finally, the *polls – questionnaires* have become a very widespread and easy Web 2.0 tool to use. Using their facilities, the members of a group can express their opinions or vote for or against various issues. Special inhibited processes can assure the validity of the voting. For instance, they eliminate the possibility for a member of a group to vote twice for or against the same issue. The polls can be used creatively in education because of their convenience to get set up, used, controlled and managed. They also enable the teacher – educator to collect the students' conclusions about an issue very quickly. Moreover, they give the opportunity to observe the validity of a study concurrently, checking, for example, if all the questions have been answered by all students.

### **The debate**

According to researches, *debate* can become a valuable educational tool as it assists in the development of critical thinking and communication skills, whereas it can boost the creativity and the competition skills and strengthen the feeling of responsibility both of the educators and the students (Garett, Schoener & Hood, 1996).

As for computer assisted educational debate approaches, several attempts have been made for the creation of a user-friendly debate environment (De Chiara, Manno & Scarano, 2010). In related studies like the one that took place in Finland (Marttunen & Laurinen, 2001), a considerable improvement concerning the ability of students to develop compound arguments during a debate was observed.

In another educational approach, a specialised software application named KIE was used to help students develop their debate skills. This method also had a very positive impact on students (Bell, 2000).

In the field of second language acquisition, research results show that argumentation in classrooms can considerably boost students' language skills (Gilardoni, 2010).

### **Application in Classroom**

The initial idea was to use the aforementioned Web 2.0 tools in a supporting and complementary form to the 5<sup>th</sup> class elementary school English book. The basic aim was to check if these particular tools can contribute to the improvement of students' critical thinking, the reinforcement of their ability to debate and the development of their writing and oral skills. In total, 43 pupils of the 5<sup>th</sup> class of a model primary experimental school in Thessaloniki in Greece participated in this study.

The application in classroom lasted for 2 weeks corresponding to 8 teaching hours. It took place in the computer lab of this model experimental school and there was also a complementary use of a projector for the presentation of the project to the pupils. Through the computer network there was an extensive use of Web 2.0 tools.

The first step was the creation of accounts in the open eClass user-friendly environment for all the pupils who participated in the project. What should be noted at this particular point is that the user names were not related to the real names of the pupils. Secondly, an appropriate amount of time was given to the students, so as to get accustomed to the special Web 2.0 tools used for the project. More specifically, they used the *wall*, the *blogs*, the *wikis* and the *polls – questionnaires*.

Next, the teacher uploaded on the blog two issues – questions for debate in English for the pupils to work on. These were: “Cats or Dogs: what do you prefer?” and “Which season do you prefer most and why?” The pupils had to express their opinions on these subjects in detail using the comments of the *blog*, whereas at the same time they could use the *wall* in order to keep their teacher or classmates updated. This facility – possibility enabled them to offer and receive online help. Furthermore, they had access to the *tag clouds* which enabled them to notice the key points of their online conversations. The above process was also repeated not only in class E1 but also in class E2.

Then, the pupils of the first class had to read the replies of the other class. After having read these replies thoroughly, they voted for the best answers using the *polls* tool. After getting the results of the *polls*, the best answers were read in the classroom. The pupils who gave them composed a single text using the *wiki*, while the rest of the students were encouraged to offer their suggestions so as to improve the final text.

**Results**

At the end of the project the pupils used the *polls* in order to answer several questions.

Table 1  
 Question 1: Were Web 2.0 tools easy for you?  
 (Scale: 1-5 / 1: Very difficult 2: Difficult 3: Medium 4: Easy 5: Very easy)

	1	2	3	4	5	Total
Pupils	0	0	1	2	40	43
Percentage %	0	0	2	5	95	100

Based on the above findings we can conclude that nowadays 10 year-old pupils do not face serious difficulties when they use Web 2.0 tools.

Table 2  
 Question 2: Did you improve your writing skills in English with this method?  
 (Scale: 1-5 / 1: Surely no 2: No 3: So and so 4: Yes 5: Surely yes)

	1	2	3	4	5	Total
Pupils	1	1	2	3	36	43
Percentage %	2	2	5	7	84	100

The conclusion coming up from the above answers is that the vast majority of the pupils stated that their writing skills in English were improved.

Table 3

Question 3: Did you improve your debate skills in English with this method?  
(Scale: 1-5 / 1: Surely no 2: No 3: So and so 4: Yes 5: Surely yes)

	1	2	3	4	5	Total
Pupils	1	0	3	6	33	43
Percentage %	2	0	7	14	77	100

The results show that pupils improved their argument – debate skills through this process.

Table 4

Question 4: Which one of the following Web 2.0 tools did you like most?

	Wiki	Wall	Tag clouds	Blog	Polls	Total
Pupils	1	34	0	2	6	43
Percentage %	2	79	0	5	14	100

According to the above answers, it could be argued that as far as certain Web 2.0 tools are concerned, the pupils prefer using the *wall* and the *polls*. This may occur due to the fact that these facilities enable an active participation on students' part.

Table 5

Question 5: Do you think that this method could also be helpful in other lessons or school subjects?

	Pupils	Percentage
Total	43	100%
Yes	0	0%
No	0	0%

The above answers given show that pupils consider the application of this method on other school lessons or subjects to be very useful.

### Conclusions

According to the aforementioned results, it becomes obvious that the Web 2.0 technologies can boost pupils' debate skills from early ages. Moreover, they can also become a valuable educational tool as they can improve students' comprehension and writing skills in English as a foreign language. To accomplish this, a complete educational scenario is used, whereas the teacher gradually introduces young pupils to a new environment so that they can achieve a maximum exploitation of their abilities. The open eClass environment is very user-friendly and it can easily be used by all students of young ages. Every pupil could intervene in a conversation, express his/her ideas, provide material and offer and receive real time help. The pupils get excited when they

use and exploit the new Web 2.0 environment. This fact can increase the pupils' creativity. In addition, the fact that they are placed at the center of the educational process increases their self-esteem, as they themselves are the creators of the educational material. Due to the fact that scenarios like this are presented online, students' parents are able to monitor their children's progress and participation. The inter-disciplinary approach used in this scenario appears to have significant benefits for all the teachers who get involved in it as it opens new horizons to the educational process regarding many different school subjects.

## References

- Aggelaina, S. & Tzimogiannis, A. (2010). A study on the participation and the cognitive presence of secondary school students in an educational blog. *Issues of Science and Technology in Education*, 3(3), 113-128 [in Modern Greek].
- Alexander, B. (2006). Web 2.0: A new wave of innovation for teaching and learning? *Educause review*, 41(2), 32-44.
- Bell, P. (2000). Scientific arguments as learning artifacts: Designing for learning from the web with KIE. *International Journal of Science Education*, 22(8), 797-817.
- De Chiara, R., Manno, L. & Scarano, V. (2010). CoFFEE: an expandable and rich platform for computer-mediated, face-to-face argumentation in classroom. *Educational Technologies for Teaching Argumentation Skills*, 44(1), 125-168.
- Elkhart, A. & Madden, M. (2007). *Social Networking Websites and Teens: An Overview*. Washington DC, Pew Internet and American Life Project. Retrieved 17/3/2013 through [http://www.pewinternet.org/~media/Files/Reports/2007/PIP\\_SNS\\_Data\\_Memo\\_Jan\\_2007.pdf.pdf](http://www.pewinternet.org/~media/Files/Reports/2007/PIP_SNS_Data_Memo_Jan_2007.pdf.pdf)
- Ferris, S. P. & Wilder, H. (2006). Uses and Potentials of Wikis in the Classroom. *Innovate: Journal of Online Education*, 2(5), 38-49.
- Garrett, M., Schoener, L. & Hood, L. (1996). Debate: A teaching strategy to improve verbal communication and critical-thinking skills. *Nurse Educator*, 21(4), 37-40.
- Gilardoni, S. (2008). Argumentation in classroom interaction. Teaching and learning Italian as a second language. *Analisi linguistica e letteraria*, XVI(2), 723-737.
- Marttunen, M. & Laurinen, L. (2001). Learning of argumentation skills in networked and face-to-face environments. *Instructional Science: An International Journal of the Learning Sciences*, 29(2), 127-153.
- Sinclair, J. & Cardew-Hall, M. (2008). The folksonomy tag cloud: when is it useful? *Journal of Information Science*, 34(1), 15-29.