Introduction

An online social learning network is an educational tool that involves members of the education community (teachers, pupils, school advisors, etc.). Through this network, members exchange information, material, ideas, and opinions while they can focus on specialized education subjects and interests [1]. In an effort to avoid the issues arising from the improper use of social media, secure social networking environments have been developed to offer education opportunities.

This article refers to the use of Edmodo as a supportive tool for the educational process in Secondary Education. The aim of the work is to present an online educational social network in the environment of Edmodo as it was used in the teaching of the course “Informatics Applications” during one school year. This action took place during the 2015-2016 school year in the 1st grade of the Evening Vocational Lyceum (EPAL) and the main tool used was Edmodo. At the same time, the reasons that led to the search for such a tool and the choice of the specific one as well as the assessments reached by the teachers, students and parents who used it in order to be used in the future teaching, not only of the Informatics course but also other courses are presented.

Materials and methods

The application used

What it is

Edmodo is a tool that provides a restricted environment in which teachers and students enroll in digital classes and, by using their personal codes, communicate, interact, collaborate, and exchange educational material within structured or non-pedagogical activities [2-3]. Moreover, Edmodo's digital platform also gathers a large number of users from education and is a social networking environment in which the participation of teachers and pupils involves the creation...
of a user account through which they can quickly publish their texts, notes, comments and thoughts. At the same time, they can send unlimited messages to each other and form groups according to the model of Google’s teams [4]. Of course in this platform there is the ability to search for other teachers or pupils. At this point it should be stressed that the platform environment is completely secure for users. Their participation is ensured through sending a relevant request, which the recipient evaluates and accordingly informs the sender of a personal code which the sender uses to have access to the group.

**What it offers**

**The main features of the tool are:** Teachers have full supervisory control as well as the ability to create teams for each of their classes and supervise the development of their activities separately. At the same time, they can communicate with parents and inform them of important issues, and even add their colleagues to their contacts to exchange ideas and experiences.

- The process of making one page is simple. All you need is an e-mail address to complete the registration. Then you will need some time to create your classes (Figure 1). The use of Edmodo combines education and entertainment, because through this secure environment students can:
  a) cooperate with each other by exchanging material and information, b) have fun exchanging posts [5].

- Organizing the teacher’s wall, by subject for easier reference.

- Monitoring the current activity of a specific member of the group, the other members of the group, as well as managing a member’s messages (selection, deletion, processing).

- Search and link between teachers or classes.

- Teacher’s participation in communities to share resources (Figure 2),

- Creating groups and sub-groups for easier department interaction and more effective teamwork.

- Control of announcements in a short time [6].

**Teaching with Edmodo in secondary education**

**The course of the subject:** The experience, presented in this paper by the use of Edmodo in the classroom concerns the teaching of the course “Informatics Applications” in the first class of an Evening Vocational Lyceum (EPAL).

In an effort to set up a module on the use of cloud applications which are offered on the Internet to create document management and collaborate remotely, Edmodo has been a powerful Education Social Networking service that helped the teacher to cope with daily problems. The ability to use worksheets in an electronic form, storage and retrieval of students’ work so that they can be evaluated from home, as well as communication, co-ordination and collaboration between the teacher and pupils both inside and outside the classroom, has prompted students’ will to work in this way.

**The method**

In practice, the procedure followed in an Evening Vocational Lyceum (EPAL) of the Prefecture of Boeotia the school year 2015-2016 for two sections of the A Lyceum, following the demonstration of Edmodo’s environment and its potential, was as follows:

**Create accounts**

Visit the official Edmodo website. First of all, the teacher was required to register and create an account. Then we moved to the home page and created the group of students with whom we intended to work, giving it the title: Informatics Applications (Figure 3).

Students to access the Edmodo platform I had to use the documents required for my registration and application. In particular, the student gave students for each class or sent them whenever they needed me to access and implement their class (Figure 4).

**Create groups**

Two groups of students were created, one for each
department using the class (group) code, all students were enrolled in each department (group), while a note was sent to all groups welcoming them to the network and setting the rules for its use. Included a user agreement which prohibited: a) the publication of the registration code of the online class (group), b) the writing of abusive or racist comments and c) the posting of obscene content.

Assignment

- Initially, we devoted much of our teaching to acquainting and familiarizing students with Edmodo. The teaching method used was to demonstrate the basic concepts using a video projector at the beginning of the lesson. The students watched the demonstration and then they sat in front of their computers' screen to: read a task, open up their teacher’s instructions, find resources in the library, and hand in an assignment. Assistance in this phase was only provided when it was considered absolutely necessary (for example, when a group could not continue).

- At the next lesson, a task was assigned to learn to modify their profile, send a new message to their classmates, upload files, pictures and links to their backpack, and send links through a message. Therefore, an electronic work folder (e–portfolio, where each student and the teacher of the class could refer to the material created throughout the school year) was automatically created.

Inclusion of parents in the network

Edmodo automatically creates for each student a corresponding parent code, which the parent can use to become a member of the group where their child belongs. In this way, the parent has the ability to monitor the progress of their child and talk with the teacher and other parent groups.

Additional features of edmodo

Calendar: through the calendar can be planned in the long run, so that the teacher and students can manage their time in the best possible way and have an overall picture of their work. This is how the study modules, the weekly tests, the exercises, the assignments, the competitions were planned.

Messages: enabled the teacher to communicate with the students to send exercises and information, solve questions, clarifications, for direct communication with students, for help, etc.

Quiz: we give it a title, we define how much time students have at their disposal to answer it, the type of questions (right / wrong, short answer, gap filling, matching), the number of questions, the units with which they are evaluated. In the same way we did the work, the exercises and tests and at the same time we kept all of them on file (Figure 5).

Advantages and disadvantages of using Edmodo in the secondary education

The use of Edmodo has positively influenced the students of the 1st class of Lyceum to:

- Collaborate in and out of class as they could interact online remotely on a common platform. In this way they were able to post laboratory exercises and take the corresponding mark by the teacher.

- Be enthusiastic about their environment, since understanding and managing it was quite similar to another social media tool, such as “Facebook” where all of them had their profile so it was very easy for them to deal with their profile shaping (Avatar and photos) by posting music from the YouTube network and exchanging messages. Although Edmodo has common features with Facebook, the teacher has clarified that

Figure 3: Illustration of groups.

Figure 4: Class groups and group code.

Figure 5: Additional features of Edmodo.
their differences are big in terms of personal data security and its use in the educational process.

Communicating with each other by exchanging messages, reinforcing the coherence of the class and their group respectively. In particular, during periods of Public or National holidays where there are no lessons (Easter, Christmas, at the weekends).

- Grading and posting the score of daily laboratory activities to award prizes as a way of rewarding classroom real-time assignment by the teacher (Figure 6).

One of the drawbacks we found in Edmodo’s use is that students often forget their usage codes to log in the digital classroom. So, until the correct codes or new accounts are detected, problems were created causing a delay in the learning process. Thus, then, duplicates had to be cleansed frequently by the class teacher. Another disadvantage of Edmodo according to the students was the non–use of the “like” function, as well as the blocking of communication (closed network) with external users (friends) [5-14].

Conclusions

The whole process was successful, so we can summarize the conclusions that come to agree with the conclusions of another survey by teachers [6,15], as shown below:

- Edmodo’s work environment caused students’ interest as the lesson gained more interest.
- Communication between the teacher and some students continued after the end of the school year as a means of communication and social networking.
- An electronic work folder was created automatically, where each student and class teacher could refer to the material created throughout the school year.
- Parents could be informed at any time about the progress of their children and chat with the teacher through the online platform.
- Students were familiar with Web 2.0 applications learning to use social networking tools in a secure way.
- The environment of Edmodo caused the pupils’ intense interest in successfully completing their activities and encouraged their collaboration. The prevailing climate in the classroom was appropriate for active, cooperative learning.
- The electronic form of laboratory activities instead of photocopies saved teacher’s time and paper.
- The teacher could prepare and organize his lesson as well as evaluate his students through Edmodo remotely and outside the classroom.
- The environment of Edmodo enables the teacher to create multiple choice or free response questions (e-assessment).
- Discussions take place in designated areas (forum) in the context of groups that have been created.

We can consult the Good Practices Guide on how to use online tools and communities in the field of education and lifelong learning (Learning Project 2.0 plus) and find important references to the practical application of Edmodo in high schools of the country. The presentation of the environment of Edmodo is characterised by normal design, without being extravagant and distracting for users. The organisation is considered quite structured, so that a user regardless of age can easily manage it from the first moment. The sharpness of the text on the screen is very good, whereas their density is also very good. In addition, the navigation in various menus is controlled by icons or titles of links, which show an obvious and simple way of using them. It is also very important the resemblance of the original navigation environment in Edmodo with the equivalent of Facebook. This creates positive and intimate feelings to the users from the beginning and makes the environment suitable for direct interaction with users.

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to achieve pedagogical, didactic and learning goals of the curriculum and instructional program. Finally, Edmodo helps teachers make a classroom community [16-21].

The results of another teachers’ survey [8] have shown that teachers use Edmodo because they consider it interesting and safe as an environment, it motivates students in the learning process and wish to renew their teaching practices. They use it to upload information, lesson notes (Figure 7), contests, quizzes (Figure 8, Figure 9), as a means of exchanging views and communication among students or as project promoters and implementing European projects, while others have used it to organize an argument competition. Its advantages are its communicative and cooperative potential, its interactive features, its attractive and safe environment for students, as well as its ability to personalise their teaching.

However, they believe it is a disadvantage that they cannot develop larger texts on the posts or the fact that they lose time when students forget their passwords. They are also disappointed with the attitude of their colleagues, who consider that it is not a lesson but a simple game [21-26].

Future extensions

It is strongly recommended to use it in the teaching the “Informatics Applications” course in the First Class of General and Evening Vocational Lyceum (EPAL), especially if the children are familiar with other social networking environments such as “Facebook” in previous years. Edmodo is also a powerful online tool for communicating with the interior or exterior of the class every day and even the days of Public or National holidays, motivating them to combine education and fun in a safe environment.

The process of learning in groups has a positive effect on the participants. In the context of a group the individual controls his learning within an organised collective framework (Self-regulated learning) [9,27-37] by using the tools provided by the Internet and especially through social networks with online (OSN) and develops communication and cooperation.

In the future we intend to measure whether such a teaching approach influences pupils’ performance in the classroom, if the teacher was also associated with other groups of teachers and pupils inside and outside our country and cultivate student’s learning autonomy of cognitive and metacognitive development. Researchers, according to the survey of the teachers mentioned above [8], consider that it would be very interesting to investigate students’ opinion on this tool, because their own view based on their preferences can, on the one hand [30-35], to contribute to the planning of activities that trigger them more, and secondly to give ideas for teachers to adopt such techniques and methods that the particular tool could make a difference in the learning of school classes of today.

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