

EDUCATIONAL PROJECT APPROACHING TEACHING-LEARNING TRANSCURRICULAR MODERN METHOD

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Abstract

Educational projects offer real life, authentic situations in order to contextualize the learning activities and connect higher level thinking skills of schoolchildren and students.

Education through trans-curricular project- based learning method allows students to approach important topics of study, to develop new skills, to work on the abilities they already have and to create products they can identify with. Thus, they are involved in taking decisions on the content, the process and learning results and also during the activities, they are involved in taking decisions, they work in teams, they are encouraged to take initiative and to make public presentations.

This educational approach provides an useful working alternative which connects a 'traditional' training to one promoting real and authentic working situations, ensuring a differentiated training as well as an integrated high level thinking skills.

Keywords: educational project, transdisciplinarity, creative thinking.

MATERIAL AND METHOD

In order to accomplish this experimental educational approach, we used **trans-curricular project-based learning** method, in which we took into consideration the curricular areas of 10 subjects that were regarded as integrated subjects. The working methods used were: investigation, documentation, questionnaires application, analysis and results interpretation. The presentation was realized by means of wiki, animations, 3D-projects, Power Point Presentations, virtual photo Albums.

RESULTS AND DISCUSSIONS

Learning process based on educational projects is a training model centered on schoolchild / student. This type of learning develops knowledge and skills through extensive tasks, which promote as results and performances investigation and learning authentic demonstrations. Education through trans-curricular project-based learning method is directed by important questions which connect specific abilities to higher level thinking skills of schoolchildren / students and real life contexts

Trans-curricular project-based learning method is a modern teaching-learning method that stimulates youngsters involved in the project (schoolchildren and students) by developing a

critical, creative thinking, helping them in: taking decisions, organizing and evaluating their individual resources, adopting positive attitudes in acquiring cognitive and trans-curricular skills. Our final goal is to develop acquisitions transfer abilities from the educational plan into the first decades of 21st century real life.

The project started from an essential question: "Is Iasi ready for the globalization adventure?". The novelty of this project consisted of the trans-curricular approach and the partnership obtained in the project between: teachers and 7th graders from G. Moisil Iasi High school and D.P.P.D. of IASI U.S.A.M.V. through the students and the teacher who accomplished the pedagogical practice in this class.

Thus, there have been conducted activities having as general theme "Nowadays Iasi in a globalized world, TIC-3D integration in learning process", from curricular areas perspective which approaches the same theme from 10 different subjects taken into account. The acquired knowledge and abilities have been transferred from a curricular area to another, the aim being to accomplish general and specific abilities from all curricular areas in an integrated context.

The project advanced in the following way: each teacher from those 10 subjects: Mathematics, History, Information Technology, Geography, Chemistry, English, German, Art, Counselling and Biology did in the class the unit that allowed the

approaching of this theme, according to annual planning. Junior students (3rd year of study) from Agriculture Faculty along with their Biology teacher- pedagogical practice mentor managed, on the first stage, to teach the lessons in the class following a traditional teaching approach. They did lesson plans and they were assisted in the class during the teaching process.

During the meetings the team of the project (teachers, parents, schoolchildren and students) established: aims and objectives of the project, stages to follow, assessment methods and criteria to evaluate, communication means (whole-class discussion, group work, wiki, e-mail, messenger). Then, schoolchildren were organised in 6 groups of 5 pupils, the choice being done randomly and each group established its leader. During 4th April- 11st April holiday, pupils, along with their parents (the pedagogical practice teacher being also a parent in the project) accomplished the practical stage of the project: they visited the distributed shops, they applied the questionnaires, they completed the tasks for each subject. In this period, the monitoring and the necessary counselling were extremely flexible and were done with the whole-class, within groups or individually.

The objectives and aims of this educational project that used a Trans-curricular project-based learning method, were:

- To accomplish an efficient verbal, written and media communication between: teachers, pupils, students, parents;
- To develop creativity and intellectual curiosity to pupils and students;
- To make pupils, students receptive to all that is new, to various perspectives offered by real life;
- To use several materials and working techniques depending on the themes pupils and students suggested;
- To develop a critical and self-critical spirit, self-assessment to pupils and students;
- To acquire a higher quality of the pedagogical practice by encouraging trans-disciplinarity and group work (pupils, students, teachers);
- To acknowledge social responsibility, parents involvement.

This trans-curricular educational project is based on active learning, a method which creates observable behaviors such as:

- **Behaviors that indicate active participation** (pupil/student is actively engaged in the activities, answers the questions);

- **Creative thinking** (the pupil/student can come with his own suggestions, can advance new interpretations);
- **Applied learning** (the pupil/student becomes able to apply a learning strategy to a certain learning situation);
- **Involvement in building knowledge** (instead of being passive, the pupil/the student follows tasks that later will lead to comprehension of the theme).

The project's implementation

Each group of pupils established a leader, and then they had to apply, accompanied by a parent, a questionnaire of 5 questions to 10 persons, customers of different types of shops. At the same time, each group of pupils gathered information about the products used as ingredients in healthy as well as in unhealthy menus.

The accomplishment of the project tasks at all subjects was done as follows:

- At History, pupils interpreted the results of the questionnaires, taking into account socioeconomic differences in Iasi society. The activity had as a result a photo album;
- At Geography, they considered Romania and other 5 European Regions subjects for study. Pupils had to search on websites for information on a similar theme. Each team accomplished a geographical and economic presentation of a region; the budget families allocate to food and generally served food in daily meals;
- At English, the groups, using the data base already created at History and Geography, wrote in English traditional recipes for each region;
- At German, they analysed the products of German origin from the visited shops and they translated the products into German and then compared them to the Romanian products;
- At Chemistry, they did a study on the structure of the food products and the percentages of the substances contained by the food products. Pupils used bibliographic tables to help them to establish positive and negative effects of the products;
- At Biology, pupils and students from the pedagogical practice realized a body study for each segment of the digestive system and they presented it in an attractive way using 2D and 3D technology. They also stated how a healthy diet or an unhealthy diet might influence the digestive tract;

- At Maths and IT, each group finished a comparative study of the prices. Then, they presented it in a graphics and diagrams, the data being processed in EXCEL program;
- At Arts, each group draw a picture, one that conceptually represents them, highlighting the colours, starting from the idea of aesthetic and valuable food;
- At Counselling classes, each group prepared some homework on the theme of being good-mannered while eating, having as source of inspiration **The Code Of Good Manners**.

The Final product design was done **wiki**, as original and representative for each group as possible. We obtained a page for each of the 10 subjects. The presentation was completed as a summative evaluation when we ended the activities of our project and also when we finished watching the multimedia presentations created by pupils (wiki, 3D presentations, Power Point presentations, Virtual Photo Albums). The members who judged the whole activity were coordonating teachers, high school principal and staff, representatives from 'Ion Ionescu de la Brad' Agricultural Sciences and Veterinary Medicine University, ISJ-Iasi representatives, students, parents, pupils.

Educational project in trans-curricular approach was presented in May 2010 during Iasi Education Week, in Magna 'H. Vasiliu' Hall of 'Ion Ionescu de la Brad' Agricultural Sciences and Veterinary Medicine University, which is the biggest Virtual Learning laboratory in Europe. Volunteer TPPA third and second year students along with the 3D team from USAMV, ensured during presentations a good running of the process, while the results of the project were promoted in mass-media and on web-sites of each partner, with the help of ISJ oficial addresses. We also used posters and the local press. We ended the activity giving awards to all participants.

In this project we aimed, and we hope we managed to do that, to analyse if third millenium

Iasi is ready to adventure in the globalization process, taking into account the actual economic context.

CONCLUSIONS

Direct and Indirect beneficiaries of the project were pupils, students, teachers, pupils parents, partner institutions.

We fulfilled our expectations in improving the learning process by: making teachers accustomed to new teaching methods, by integrating new technologies, by developing abilities to build a motivating educational environment in teaching-learning process.

The most important acquisitions, from pupils and students point of view were: To develop specific abilities for 10 subjects by using the new technologies; the use of several materials and working techniques depending on the suggested themes; To develop a critical and self-critical spirit, as well as self-assessment; To prepare for the final presentation, to prepare the answers and possible uneasy questions that may arise refering to the quality of the presentation; To manage time properly and accomplish the tasks in time; To add interesting and surprising elements in presentations; To integrate in an unified vision the received information on the same theme (images, sound, film, animation); To learn to underline in their self-assessment 'strong' and 'weak' points of the presentation.

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