



Project Work And School Learning Motivation

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Abstract

The learning motivation problem is of global importance. For the optimization of the education process, it is necessary to investigate the potentials for application of a specific methodological tool kit, like projects, confirmed with the conclusions stated above to increase the learning motivation among the students.

The project work and distribution of the tasks among students is a method for increasing of learning motivation to all subjects, as we always rely on their personal characteristics to receive maximum satisfaction from implementation of the tasks. We are suggesting the mechanism for influence over learning motivation of students in the school through psychological and pedagogical aspects of the project work. The reviled information in this paper is based on the gained experience, connected with task distribution and team working on seven different school partnership projects on Life Long Learning program.

The learning motivation of the students is connected mainly with the constant search of the European pedagogical community to find new methods and forms of training to support the internal learning motivation of the students. The means of the typologizing can be used, that gives effective and economic estimation, letting each teacher to regulate his / her pedagogical influence in accordance with each case.

The subsequent examination researches the problem about the influence of the individual – typological peculiarity to choose a method for working in class with students as a possibility to increase their motivation for studying. Personal characteristics, introversion and psychoticism have a direct link with students' preferences for class work method. Therefore, if an adequate methodological technology of teaching the individual will be used, the motivation of students for studying in will increase.

The work related to the project involves several stages and usually exceeds the frames of the school lesson, as in general outlines includes theme selection, preparation of a work plan with specific time and personal engagements, formation of working groups, implementation of the tasks, making the necessary corrections, layout of the final product, feedback and evaluation of the project. It could be argued that the work with project method requires students' independent thinking, coordination, active research and communicative interaction.

To obtain the results in regard to motivation to learn, by means of the project method, it is necessary the theme of the project to be suited to students' opinions and desires and to the specific educational content provided for studying according to Bulgarian educational standards. The educational process through the project method means primarily to increase existing knowledge and to acquire new skills, knowledge and habits by creatively transforming the reality.

Students are different in respect of levels of their motivation to learn, the main content of that motivation and the degree to which they are extrinsically and intrinsically motivated. Most students react to a certain extent on the basis of both intrinsic and extrinsic motives, while some students seem to be more sensitive to certain aspects of the educative activity, than others.

Each person is a unique combination of individual and common features and idiosyncrasies. Besides as individuality formed by the social impact given during their own development, a person can also be described as having characteristics that relate them to other people. It should be stated that a unique scheme for single features and qualities that will be satisfactory for all types of individuality does not

exist. Combinations of those features and different accentuation are observed in each personality, but it is possible to identify typological schemes with a high degree of validity like the typology of introversion and extroversion introduced by K. Yung and further developed by H. Eysenck.

Type is determined to be a notion for a rule that determines similarity between the individuals based on their psychic qualities and divides them into groups according to a certain combination of behavioural manifestations. According to H. Eysenck and K. Yung extroversion is one of the two-side dimensions, and the other side is the introversion, i.e. there is a functional opposition between them.

Up to present the different aspects of the impacts between the stable personality types introvert – extrovert and the socially determined learning motivation have not been investigated.

In 2006 researches are carried out in six European schools – partners in the project “Our Cultural and Social Diversity in Europe”, implemented under Comenius School Partnership Programme. The total number of the students surveyed was 249 and the results were published in the book “Learning motivation in the high school stage of education” [3].

The conducted research confirmed the relevance of the problem with the practice approach in modern schools and drew a conclusion that a relation exists between the individual – typological characteristics of the extroversion and introversion of high school students and their motivation to learn. For optimising the educational process, it is necessary a new research to be done to explore the possibilities of applying a specific methodological toolkit, adequate to students’ personality in order to increase their motivation to learn. At the same time their work in various activities was observed during the implementation of seven projects under the Lifelong Learning Programme. These are Our Cultural and Social Diversity in Europe, Walking along History, Open Minds for Active Citizenship, Green Europe, Alice’s Knowledge Road, Brave Enough to Be Kind and The Youngest Entrepreneurs of Europe.

Firstly, a survey was done among a large number of high school students and then the work of those who study at our school was observed by involving them in project activities.

Eysenck Personality Questionnaire, standardized for Bulgarian population, was used as a main research method. It consists of 46 items assessing the personality traits of a student /extrovert and introvert/ and a questionnaire concerning their preferences for 21 pedagogical methods, according to the classification of M. Andreev, a well-known Bulgarian pedagogue [1, p.196-240]. The total number of students surveyed who participated successfully in the research is 931, at the age of 13 – 19 years old /8th – 11th grade/. Adequate statistical methods were applied for the statistical analysis. In the comparative analysis – the test for comparing the average values of the independent samples as well as factor analysis by the method of maximum likelihood through which the presence of a common leading factor is indicated. Regression analysis is also used for specifying the competitive strength of the influence of a group of factors (explanatory undependable variables) on a certain dependent variable. Standardized regression coefficients are calculated as well as their significance and the overall estimation of the significance of the model.

Maximum likelihood factor analysis indicates the presence of a leading factor with its own meaning 5.154 which explains about 25% of the whole variability. Regression analysis of the leading factor of Eysenck’s scales and the teaching methods preferred by the students indicates that the model is significant as a whole [$F(4,922) = 33.830$; $p < 0.001$]. The analysis shows a strong significant positive effect of introversion [$\beta = -0.246$; $t(922) = 7.895$; $p < 0.001$] and a strong significant positive effect of psychoticism [$\beta = 0.233$; $t(922) = 6.965$; $p < 0.001$].

The statistical significance of the surveyed results (effects) is seen through the value of the estimated level of significance p . The P -value is interpreted as the probability of error rejecting the null hypothesis (Type I error). A small p -value is evidence against the null hypothesis and therefore accepting the assumption that the observed effect is statistically significant. The null hypothesis is rejected when the p -value is less than 0.05 [$p < 0.05$].

The research conducted draw the conclusion that the individual – typological characteristics of introversion – extroversion, psychoticism – neuroticism are of great importance for the selection of teaching methods for the educative process. According to the activities proposed, each student can be motivated to different degrees to implement them. Using a mathematical model of the respective personality type, after being identified with the help of the appropriate questionnaire, an adequate methodological toolkit can be proposed. This could be empirically observed to a great extent in the project work on school partnerships under the Lifelong Learning Programme.

Main activities in Comenius projects are developing teaching materials, publications and communication among students. Those young people who have more extroverted attitude tend to



seek their self-realisation namely in direct communicative situations, while those having introverted attitude – work actively in indirect or online initiatives for promoting traditions, exchanging information about their school and their home country.

Other important activities in projects are public performances, discussions and debates. Students with extroverted personality traits are usually the participants in these groups. Some students preferred to work on the preparation of the public presentations while others – on the presentation itself. The identified needs of students at “Bacho Kiro” General Secondary School and the need for their involvement in non-frustrating and non-stress activities led to work differentiation. Students gathered on their own when making a team for the project activities as in each team they select an activity corresponding to their typological attitude. Work on projects help these processes to be observed unlike the teaching-learning process in class where students face the necessity to “involve” themselves in a particular activity no matter if it meets their inner needs. The latter is essential for encouraging students’ intrinsic motivation to learn especially when they are at the sensitive high school stage of education.

Comenius projects are a great opportunity to encourage the use of ICT, learning new software and experimenting with it. In such activities introverted students often get good assessment of their work by their teachers.

According to the observations, student motivation to learn and the quality of performance of introverts can be improved by assigning them tasks to work with texts, observation, experiment and study of documents. Previous experience [2, p. 43-44] proved that they cope excellently with researches within a certain project or topic, but not with the presentation and dissemination of results where extroverts prevail. Introverts show a higher level of achievement if they work on their own but it does not imply that they will work poorly in a student team. By selecting a method adequate to the personality type, a teacher should create a condition for the emergence of the subjective feeling of satisfaction with the efforts students have made as well as to optimise their motivation to learn. An adequate methodological toolkit excludes the occurrence of negative emotions like embarrassment, discomfort and low self-esteem. The students’ satisfaction is evident when setting them tasks to collect different materials used to create didactical toolkits /“Open Minds for Active Citizenship” project/, a virtual dictionary or phrasebook /“Alice’s Knowledge Road” project /, search and study of endangered plants and animals in the partner countries /“Green Europe” project/.

Students characterized as having more extrovert attitude often participate in other project activities such as discussions and public campaigns; they develop and implement strategies, run trainings and campaigns at school. They organise most of the activities which encourage the entrepreneurial spirit – meeting entrepreneurs as well as organising exhibition – bazaars and auctions.

The empirical observations in this part of the pedagogical practice confirm that the use of methods of imitation – game method and dramatization can be highly successful in increasing the motivation of students having an extrovert attitude. It is empirically observed that they are keen on their work, creatively meet the teacher’s requirements and can successfully develop almost every situation. Unlike them, the introverted students, due to their personality characteristics, can cause negative emotions when they implement a game or play a role before an audience. It can be assumed that the misapplication of these methods with extreme introvert students can lead to a frustrating situation, long after the positive side of motivation to learn will be reduced or even lost.

The observations carried out while working on projects for school partnerships and the results of personal studies lead to the conclusion that personality traits according to the model of H. Eysenck, particularly introversion and psychoticism are related to the preference of students to the method of work at school. This would mean that if an adequate methodological technology of teaching appropriate to individual - typological characteristics of high school students; it can increase their motivation to learn. The use of the project method suited to the individual characteristics of their personality to increase student motivation to learn is an intriguing subject which is considered by teachers interesting and deserving attention. The observations stated above have been presented before Bulgarian teachers and young scientists at national conferences as well as at Romanian pedagogical symposium in 2010. Further work should be directed towards exploring the possibilities for practical application of the established principles in the curriculum.

Clarifying the relation between personality idiosyncrasies and motivation is of vital importance and is connected with the methodological requirements of the modern European education system. Its solution will give opportunity for a planned impact aimed at the correct development and formation of personality of students, notwithstanding their nationality.



Project work has helped each of our young people. It has an effect on the reality that surrounds us, makes them reconsider their actions and the way they can change them in order to be able to live in a world without any divisions all together in a common European home.

References

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