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ORGANIZATION OF TEACHER-STUDENT INTERACTION IN THE CONDITIONS OF TECHNOLOGICAL LEARNING

The article highlights the organizational capabilities of learning, an important feature of which is the partnership interaction between teacher and pupils, which is the basis of a successful cognitive process. The authors emphasize that the educational interaction is realized in conditions of a technological educational process and is successful due to a clear division of functional responsibilities of its participants. The peculiarities of educational interaction concerning the professional training of a teacher and the development of pupils' learning to study are outlined.

It is pointed out that an important factor in the partnership interaction of the subjects of the educational process is the expression of the will of pupils who voluntarily and readily accept the teacher's instructions. This will contribute not only to the acquisition of subject competencies, but also to the formation of a self-sufficient personality who is able to make conscious choices, select appropriate means of its implementation and be responsible for the results of their educational or professional work. The personality orientation of free partnership and educational interaction gains special power during the study of a work of art, due to its spiritual potential, the realization of which depends on the operational ability of pupils to work on what is read.

Partnership interaction of subjects of the education is realized through motivated statement of the educational task, definition of its executors and giving them an approximate basis of activity, gradual consolidation of the corresponding mental actions, that is owing to the development and realization of the educational project, and also checking of its efficiency, distribution in the educational

environment. Training which has the form of a system of pedagogical actions, which provides a certain combination of content and means of cognitive activity of pupils aimed at achieving didactic result is offered.

The elucidation of the problem of project-based learning in terms of educational interaction of its main subjects aims to emphasize the organizational potential of technological learning and its features and benefits. As they gradually gain subjective experience, pupils need less help from the teacher, and their learning becomes free.

Keywords: *organization of educational process, educational interaction, free learning, educational project, technological training.*

В статье освещаются организационные возможности технологизированного обучения, важным признаком которого является партнерское взаимодействие учителя и учащихся, которое выступает залогом успешного познавательного процесса. Авторы подчеркивают, что учебное взаимодействие участников этого процесса происходит благодаря четкому распределению их функциональных обязанностей – педагогических и ученических.

Эффективным средством сотрудничества учителя и учеников считается учебный проект, реализация которого предполагает не только разработку «проектной документации», но и определения исполнителей запроектированной работы.

Раскрытие проблемы проектного обучения с точки зрения учебного взаимодействия его основных субъектов имеет целью акцентировать организационный потенциал технологизированного обучения и его особенности и преимущества. По мере приобретения субъектного опыта ученики лишаются зависимости от помощи учителя или внешних опор, и их обучение приобретает свободный характер.

Ключевые слова: *организация учебного процесса, учебное взаимодействие, свободное обучение, учебный проект, технологизированное обучение.*

У статті висвітлюються організаційні можливості навчання, важливою ознакою якого є партнерська взаємодія вчителя й учнів, що виступає основою успішного пізнавального процесу. Автори наголошують на тому, що навчальна взаємодія реалізується в умовах технологізованого освітнього процесу та успішно відбувається завдяки чіткому розподілу функціональних обов'язків його учасників. Окреслюються особливості навчальної взаємодії, що стосуються фахової підготовки вчителя та розвитку в учнів уміння вчитися.

Вказується, що важливим чинником партнерської взаємодії суб'єктів освітнього процесу є волевиявлення учнів, які добровільно і з готовністю сприймають настанови вчителя. Це сприятиме не лише здобуттю предметних компетентностей, а й формуванню самодостатньої особистості, здатної робити свідомий вибір діяльності, добирати відповідні засоби її

виконання та відповідати за результати своєї навчальної або професійної роботи. Особистісна спрямованість вільного партнерства та навчальної взаємодії набирає особливої потужності під час вивчення художнього твору, зважаючи на його духовний потенціал, реалізація якого залежить від операційної здатності учнів працювати над прочитаним.

Партнерська взаємодія суб'єктів навчання реалізується через умотивовану постановку навчального завдання, визначення його виконавців і надання їм орієнтовної основи діяльності, поетапне закріплення відповідних розумових дій, тобто внаслідок розроблення і здійснення навчального проєкту, а також перевірки його ефективності, поширення в освітньому середовищі. Пропонується навчання, яке має вигляд системи педагогічних дій, що передбачає певну комбінацію змісту й засобів пізнавальної діяльності учнів, спрямованої на досягнення дидактичного результату.

Висвітлення проблеми проєктного навчання з погляду навчальної взаємодії його основних суб'єктів має на меті акцентувати організаційний потенціал технологізованого навчання та його особливості й переваги. У міру поступового набуття суб'єктного досвіду учні менше потребують допомоги від учителя, а їхнє навчання набирає вільного характеру.

Ключові слова: *організація навчального процесу, навчальна взаємодія, вільне навчання, навчальний проєкт, технологізоване навчання.*

Statement of the problem in general and its connection with important scientific and practical tasks. Improvement of the classroom system of schooling determines the search for its effective organizational forms that are more consistent with the personality-oriented paradigm of modern education and meet the requirements of its universalization. The problem of organizing the educational process has always been a priority in pedagogical science. Thus, even in the last century it was attempted to improve through various projects: the Dalton Plan, the laboratory-brigade method, the Lipetsk experience, programmed learning, simulation-based learning, group work, etc. All of them draw attention to the driving forces of the pedagogical process, from which we can identify priorities: the organizational efforts of the teacher and the learning motives and capabilities of students. The first one concerns the forms of teaching, the second – the personal-motivational factor of student activity. The problem is not only to develop and improve them but also to connect them closely. It is about the organization of

partnership interaction between the participants of educational process in a school course of Ukrainian literature.

Analysis of recent research and publications on the problem considered in the article and the identification of aspects of the general problem to which the article is devoted. Organization of education is considered in the scientific literature as an ordered set of actions aimed at shaping the personality [2, pp. 612-613]. Organizational actions in the educational process are always associated with multi-vector communication of its participants which means their intersubjective interaction. Proposing the concept of intersubjective teaching of Ukrainian literature V. Ulishchenko focuses on a comprehensive dialogue not only between a teacher and students but also students between themselves, between the reader and the characters of the work, between the author and the characters of the work and readers, etc. [13, pp. 111-119]. That is, the emphasis is on different types of dialogue such as: reading, artistic, inter-artistic, etc. However, only the teacher's communication with students has educational significance. It is the teacher who plans and implements in school practice the methods and techniques of intersubjective studying, and the main means of educational interaction is his tasks and questions to students. The method of intersubjective teaching of Ukrainian literature developed by V. Ulishchenko allows to expand the range of educational cooperation between a teacher and students. This process takes place due to their interaction with educational objects, first of all works of art and their figurative components. That is, educational cooperation is given substantive content.

Regarding the process of intersubjective interaction the ideas of technological renewal of education are actualized. Scientists call the functioning of pedagogical technology as an interconnected activity of a teacher and students on a contractual basis in accordance with the didactic purpose (H. Aleksandrov, V. Monakhov, V. Slastenin). Analyzing the foreign experience of theoretical development and application of technological learning M. Klarin claimed in the late twentieth century that this trend had spread to all developed countries. In the words of the scientist the idea to transform learning into a kind of «production and technological process with a

guaranteed result» [5, p. 3] achieved as a result of programmed reproduction of actions of a teacher and students was perceived as very attractive. The possibility of multiple repetition (reproduction) of the same mental actions is related to the study of certain educational material which determine the definition of appropriate types of cognitive tasks and procedures for solving them. Since the structure of the content of the studied material reflects the system of mental actions aimed at their assimilation, there is a need to appropriately structure the content and process of educational work. This means to some extent the standardization of students' subject competencies and ways of their formation. At the beginning of the XXI century scientists (T. Nazarova) indicated the standardization and unification of educational production in the education system. Nowadays the standardization of the content of school education is recognized as an active factor of its quality in the schools of the EU countries, as it implies the consistent achievement of the educational goal through the structuring of subject material [6]. This is implemented mainly by algorithmic activities that have a strong organizational value which is characteristic of the built on technological logic process. The modeling of this work is a preliminary description of the students' actions by the teacher which gradually and successfully lead them to the formation of certain competencies. This allows us to consider studying as an interconnected cooperation of its main subjects. H. Aleksandrov explains pedagogical technology as «a set of methods and techniques, forms of interconnected activities of a teacher and a student which ensures the efficiency of functioning of the pedagogical system and the achievement of set pedagogical goals» [1, p. 58].

A kind of culmination in the educational interaction of teachers and students, which is successfully implemented in the context of technological learning, happens at the intersection of the content and forms of education. As a result of the partnership of performers, pedagogical technology acts as a dynamic operational-essential subjective characteristic of the educational process. Analyzing various forms of organization of the educational process (the Dalton Plan, its transformation into the laboratory-brigade method, Jena-plan, Winnetka Plan, etc.) I. Ziaziun identified the features of free learning based on the organizational principles of

conscious planning and voluntary performing of cognitive activity by students. The scientist points to the following actions: students' awareness of the logic of subject knowledge deployment, ability to analyze the learning situation, independent setting the goal of their own activities, making a phased program of their actions, implementing it and analyzing the results, evaluating the success of the task performance, etc. [4, pp. 303-304]. These are indicators of high educational achievements of students. Students, who have mastered the methods of acquiring new knowledge and achieved certain educational results, have a positive attitude to cognitive activity and a peculiar taste of cognition. Such qualities make a person free to choose not only the content and forms of their mental actions but also their successful application in practice.

According to I. Ziaziun the personal freedom of students, which is realized in the coordinates of organizational forms of the educational process, is of fundamental importance for our research. Methodists emphasize: «The organization of modern studying in terms of values of students' personal development determines the restructuring of the content and methods of literary education» [15, p. 185]. If I. Ziaziun pointed to the modern philosophy of pedagogical action, it is necessary to anticipate the corresponding ideology of student action which is realized on a partnership basis of educational interaction of all participants of the technological educational process. The personal orientation of the educational process in the conditions of free studying and intersubjective cooperation of its participants gains special power during the study of a literary work. This is explained by the fact that the emphasis is on the spiritual potential of the work, the realization of which depends on the students' operational ability to process the previously read information.

Reforming Ukrainian education on a competency basis means that all subjects of the educational process must be clearly aware of their actions and the results of their implementation. Then education will look like a system of pedagogical actions that successively determine the content, means and nature of students' cognitive activity aimed at achieving a didactic result. The problem of development and

application of pedagogical technologies in the conditions of the New Ukrainian School as the content and organizational factor of quality of developing educational process is actualized [4].

Thus, pedagogical technology is an organizational and procedural part of pedagogical science which means the optimal interaction of a teacher, students, educational material and methods, forms and means of studying in the process of which the didactic goal is guaranteed to be realized.

However on the way to the implementation of technological learning difficulties of both conceptual and practical nature arise. There is an identification of the concepts of methods of teaching and teaching technology, neglecting technological tools and acquirement of skills to work with them, underestimation of algorithmization and standardization of cognitive activity, of controllability of the educational process and interaction of a teacher and students in achieving a didactic goal, etc. The widespread school practice of mainly reproductive learning and «explanation of new material» contradicts the requirements of innovative updating of both the pedagogical arsenal of developmental learning and the formation of students' subject reading competence. Reforming the school education system on a new conceptual basis requires a deeper theoretical support of the educational process in both semantic and formal aspects.

The aim of the article is to determine the optimal organizational forms of educational interaction between a teacher and students in the process of analysis and interpretation of a work of art.

Methodology of the research.

The interconnected activity of a teacher and students is actively considered by scientists-didactics in the aspect of technological learning (I. Bohdanova, M. Klarin, V. Monakhov, V. Palamarchuk, O. Piekhota, S. Sysoieva). The partnership between a teacher and students, which is realized in the conditions of technological learning, requires first of all the delimitation of their functional responsibilities. I. Ziaziun pointed out that "a student must first master a peculiar «profession of student», i.e. learn to use the necessary technological arsenal» [3, p. 77]. This statement of the

scientist correlates with the understanding of the conditions and means of forming the students' reading competence. It is about a purposeful process of acquisition of subject knowledge by students and development of their skills, figurative representations and formation of the personal attitude to what is read and personally experienced, developing an «algorithm of reading of works of art» [11, p. 6]. At the same time, as V. Shuliar noted, a literature teacher «must clearly imagine the components of their professional competence», their acme-trajectory of the development [14, p. 134].

So, the problem of educational interaction should concern both the professional training of teachers and mastering of learning methods by students. The readiness of the teacher to apply educational technologies, the availability of technological tools and the formation of a competent reader are actualized. Such student-reader is able to independently comprehend the figurative meaning and ideological and aesthetic potential of the work of art, to choose on the basis of what is read personally important and socially significant values.

Results of the research. Presenting the main material of the research with the substantiation of scientific results.

The productive nature of cooperation between a teacher and students-readers is realized on the basis of actualization of experience of subjects of teaching and their analytical-interpretative, aesthetically valuable activity in the course of processing the work.

Recognition of students as subjects of the educational process has a motivational value and serves to activate their self-expression in their own activities which take place on the basis of free studying (according to I. Ziaziun). The interiorization of mental actions of different types, which are actual in the subject environment, is achieved through the possibilities of technological learning, an important tool of which is the indicative basics of cognitive activity. The greater the students' experience of performing educational tasks of various kinds of cognitive work will be, the stronger their ability to independently plan and perform educational

activities will be, the ability to technological thinking and keeping order of performing the task will develop.

The construction of subject learning technology directs the joint work of a teacher and students in the system-structural aspect of the analysis of the work of art for its adequate interpretation and spiritual impact. Basing on the logic of constructing a certain literary work the teacher disassembles it with students into figurative components. They are considered in semantic and form meanings taking into account their relationship with each other. As a result of educational interaction the teacher supervises the work of students who develop appropriate competencies through the reproducibility of mental actions. To achieve the planned result it is necessary to perform a number of organizational measures that constitute the content and form of the educational process ensuring its competence character. Basing on the motivation of learning and actualization of basic knowledge the teacher needs not only to define learning objectives but also to reveal the algorithm of their gradual implementation through each action which at first becomes educational and then – training. This algorithm of actions is the basis of technological learning, serves as a kind of compass of knowledge and action, is recognized as the only tool of learning (L. Landa).

The subject of our research is the activity aspect of interrelated pedagogical and student actions. The phenomenon of fiction is that its study is impossible without direct and interested contact of the reader with the text of the work. The level of students' comprehension of what is read and the degree of influence on consciousness and feelings, which is a motivating factor in determining and mastering the basics of artistic cognition, depends on the depth of students' comprehension of the phenomenon of the art of words. Only by realizing these rules the student-reader is able to «work with texts of different artistic and aesthetic systems, cultural and historical epochs, worldviews, traditions and styles: to understand the content of reading, to clarify the author's position and artistic means of conveying it to the reader, to create their own meanings based on what is read…», as the current curriculum of Ukrainian literature requires [11, p. 6]. At the same time, a teacher,

rather than a content of a textbook, has more opportunities to form the students' rules of such educational activity.

The role of pedagogical management of educational process grows in the conditions of educational interaction. The literature teacher needs to organize students' learning activities to ensure meaningful mastery of the ideological and artistic content of the work, expressive reading of it and at the same time the formation and development of students' reading skills which are the components of subject reading competence. It is important that students-readers not only understand the meaning of what is read but also understand the ways of their work on the text, develop criteria for evaluating the art of speech. The components of the mechanism of educational interaction are pedagogical and student actions, whose object of study is a work of art: the teacher's word, educational tasks and questions, individual, group and collective work of students, etc. An important role in this process is given to the use of indicative bases of mental actions which provide both mental and moral complication, which must be overcome by solving the problem. For example, it may be a task for ninth-graders to explain the tragedy of Kateryna from the poem of the same name by Taras Shevchenko. The organizational role of the teacher will be to help students to answer this problematic question on their own with the help of leading questions. It is important that the teacher's tasks and questions consistently direct students' attention to the essence of the problem, contribute to the motivation of active search. For this purpose a heuristic conversation is used, whose order of the questions will be algorithmic. For example: «What disaster happened to Kateryna? Do you sympathize with her?», «What life circumstances prompted her to commit suicide?», «Can Kateryna be condemned for her act?», «What is the tragedy of the situation where the main character got into?», etc. Consistently answering the questions the ninth-graders gradually come to the conclusion that the feeling of loneliness and insecurity turned out the factor that caused the tragedy of the girl.

Since the literary analysis is «carried out by highlighting significant elements in the work, consideration of each of them and the relationship between them», the appropriate order of reader actions is determined, which has technological

significance for their sequential formation [12, p. 55]. As the reading activity expands, students form techniques of analytical work on the text. However this happens much faster and more correctly when the teacher reveals to students the trajectory of educational activities and its practically appropriate means of effective implementation in advance. The partnership interaction of the subjects of studying takes place through the motivated statement of the task, determination of its executors and giving them an indicative basis of actions, gradual consolidation of the appropriate mental actions. That is, as a result of the development and implementation of the educational project, as well as testing its effectiveness and dissemination in the educational environment.

The educational goal, formulated in the curriculum of Ukrainian literature, is transformed into a teacher-defined motivational scheme for students of analytical and synthetic actions due to the reliance on a clear algorithm for their performing [11, p. 37]. For example, in the process of studying the works of L. Hlibov in the 6th grade, such algorithm can be shown in the form of reference points for work on the fable «The Pike»: 1. Moods. 2. Event. 3. The characters and their relationships. 4. Art tools. 5. Author's position. 6. The moral of the fable. 7. Fable poem and genre of the work. 8. Intertextual connections. The meaning of the algorithm is that it provides a clear sequence of performance because each subsequent action is performed only after the corresponding previous one. Thus, studying takes place "through every learning action" (M. Hrynova) which contributes to the formation of students' certain stereotype of mental and practical activities.

The educational interaction of the subjects of cognition is realized in the fact that the teacher sets the task and shows the way to complete it and the performers-students have an opportunity to optimally distribute the time, content and forms of their work. Subsequently they can be exempted from external support and move to a higher, exploratory level of activity. The formation of mental actions of students-readers occurs taking into account the content and form of the studied work of art, the structure of cognitive work on the text and the level of their reading competence. The learning technology is effective if the subjective experience of students is taken into

account as much as possible. This is one of the factors of partnership between a teacher and students which works in the conditions of individualization and differentiation of the educational process. Differentiation, as noted by A. Sbruieva, occurs under the conditions of studying which involves the use of different methods, tools, teaching materials in the learning process of different groups of students, i.e. is realized only in the interaction of a teacher with students [8, p. 224]. Therefore, their partnership in conditions of technological education is always based on the principles of individualized and differentiated learning which allows to take into account the subjective experience of the performers on time and to determine the level of pedagogical assistance to them accordingly.

Due to the different level of students' reading competence concerning the performance of certain tasks, the teacher applies the indicative bases of action of different completeness achieving the necessary reliance of performers on external sources: rules, memos, instructions, etc. Conditionally dividing students into groups according to the level of their mental and literary development, he not only offers them an exploratory task but also gives recommendations of the algorithmic type for its performance. It can be a task to describe the appearance of the character with an indication of the portrait details from the text, to determine the author's attitude to the character on the basis of his description according to a detailed algorithm-recommendation. For example, to reread the text (excerpt); to find a description of the character's appearance in the text; to determine what details make up the portrait of the character; to write the details of appearance in a notebook; to observe in which words of the description of the portrait the author's attitude to the character is felt and what it is; to explain their attitude to the literary character.

Some students should be advised to try to imagine the appearance of the character, to describe his portrait close to the text.

However some students-readers need at least brief recommendations of this type: 1. Who is the main character of the work? 2. What is your attitude to him / her? 3. What appearance features of the character do you remember? 4. Try to describe his / her appearance.

So, students work on one task but receive different help from the teacher depending on the level of their academic achievements which contributes to closer educational interaction of participants in the educational process. By the same signs, for example in US schools, the division of students into groups (tracks) is common – high, medium, low in the level of development of intellectual abilities and academic success [8, p. 227]. Moreover, as scientists warn, the younger the students are, the more detailed the recommendations for organizing their independent work should be (V. Palamarchuk). The main thing is that in each case the teacher will work with students on the principle of performing a full cycle of cognitive activity which is essential for the organization and success of the educational process as it will gradually transfer all mental actions of a certain type in the internal plan of the subject [10].

Conclusions and perspectives for further research.

Studying interaction involves the presence and development of subjective experience of all participants of the educational process. The organization of educational interaction should take place on a technological basis which means the restructuring of cognitive activity in the procedural direction through its algorithmization. Organized cognitive work of students, specially organized and managed by the teacher, is a reliable factor in the success of their joint activities. Standardization not only of the content, but also of the forms of education due to their structuring and consistent implementation has a significant potential for the organization and conducting qualitative school literary education. The structure of the content of a work of art is a determining factor in the performance of students' mental actions on the text. Their exploratory work should be provided with indicative bases of actions, full mastering of which contributes to the formation of ways of activity of the appropriate type.

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