

Slatvinska O.A.

SIMULATION TECHNOLOGY AND GAME-BASED TEACHING OF SPECIAL SUBJECTS IN AGRICULTURAL VOCATION SCHOOLS

Institute of Vocational Education NAPS Ukraine,

Kiev, Chapaevske shosse 98, 03045

***Анотація.** Упровадження в навчальний процес імітаційно-ігрових форм і методів дозволить учням успішно вивчати спецпредмети в ПТНЗ аграрного профілю, набутти обов'язкові уміння та навички комунікативної діяльності, продуктивного спілкування, навчить орієнтуватися в ситуаціях, прогнозувати результати свого та чужого спілкування. Застосування нових технологій в учбовому процесі має на меті сформувати у майбутніх кваліфікованих робітників стійкий інтерес до сприйняття та засвоєння інформації на уроках, потребу та прагнення брати участь у спілкуванні, отримувати емоційне задоволення від взаємодії з оточуючими; дасть можливість набутти необхідний для подальшого життєтворення соціально-комунікативний досвід.*

***Ключові слова.** Технологія імітаційно-ігрового навчання, ділова гра, ПТНЗ, ПТО.*

Слатвинская Е.А. Технология имитационно-игрового обучения при изучении спецпредметов в ПТУ аграрного профиля.

***Аннотация.** Внедрение в учебный процесс имитационно-игровых форм и методов позволит ученикам успешно изучать спецпредметы в ПТУ аграрного профиля, приобрести обязательные умения и навыки коммуникативной деятельности, продуктивного общения, научит ориентироваться в ситуациях, прогнозировать результаты своего и чужого общения. Применение новых технологий в учебном процессе имеет целью сформировать у будущих квалифицированных рабочих устойчивый интерес к восприятию и усвоению информации на уроках, потребность и стремление участвовать в общении, получать эмоциональное удовлетворение от взаимодействия с окружающими; позволит приобрести необходимый для дальнейшего житнетворение социально-коммуникативный опыт.*

***Ключевые слова.** Технология имитационно-игрового обучения, деловая игра, ПТО, ПТУ.*

Slatvinska O.A. .. Simulation technology and game-based teaching of special subjects in agricultural vocational schools .

***Abstract.** Introduction to the educational process simulation-gaming forms and methods allow students to successfully learn special subjects in agricultural vocational schools, acquire the required skills and skills of communication, productive communication, teach focus in situations predict the results of his and others' communication. The use of new technologies in the educational process aims to shape future skilled workers strong interest in perception and assimilation of information on lessons need and desire to engage in dialogue, get emotional satisfaction from interaction with others; will provide an opportunity to acquire needed to further socio-life-creative communicative experience.*

***Keywords.** Technology simulation-game, training roleplay, vocational schools ,vocational education.*

Introduction

One of the major problems of modern vocational education is the search for effective ways and means of personal development of students of vocational schools (VET). The current educational process inherent in the prevalence of verbal methods of communication, underestimating the value of interactive communication, lack of interesting forms of training activities, etc. [6]. This problem contributes to the implementation of teaching practice playing techniques that are designed to increase participation of students. The purpose of vocational education - not just students mastering a certain amount of knowledge, education and active life, humanistic directed citizens of Ukraine who have in their life guided by national and international spiritual values. Achieving this goal is possible under conditions of formation of all activity levels, especially teenagers communicative activity, because the communication interaction between students as versatile aimed at the formation of future skilled agricultural worker [7].

Problem.

Primary among types of innovative training takes simulation-game. For the modern education system simulation games form important primarily because they significantly affect the volume and depth of conscious assimilation students of educational material, forming their innovative thinking, freedom of choice, needs and readiness for innovation.

Learning game - a system of interrelated elements that are components of the complex electoral involvement where relationship and mutual assistance become character components aimed at achieving the intended didactic result [10] . Learning game provides conditions for practicing teachers of all educational components activities.

The game - one of the most remarkable phenomena of life, activity seems useless, however, necessary, is sufficiently serious and difficult problem for science. The game is a natural activity of the child, it gets ample opportunity to identify personal activity, creativity, demonstrate your potential. It is in the child understands the game actually "I" serves as "other", changing its position on the individual child and specifically to the new position of the adult. In the process of communicating through curiosity, pleasure and delight the child seeks to assert themselves. In today's game VET teaching methods are used as a separate item, a small part of the lesson.

Analysis of current research.

Since ancient times, the phenomenon of the game attracted the attention of many researchers, such as famous psychologists of the twentieth century – L.S.Vygotsky, A.N. Leontiev, S.L.Rubinshteyna, D.B.Elkonin, V.V. Zenkovsky, A.V. Zaporozhets, and others. [2,3].

These scientists have developed a theoretical basis of the historical origins of the game, its social nature and psychological mechanisms. Fruitful thought about playing as a method of training and education of students of different ages found in the scientific legacy of outstanding teachers working in different historical and social conditions - P.F.Kapterev, M.I.Demkov, M.V.Klarin, A.S.Makarenko, V.A.Sukhomlynsky, K.D.Ushinsky, and others. [9]. They concluded that it exceptional value for the child and the need use in vocational school.

Various researchers and thinkers countries acquire one theory to another game - K. Gross, Schiller, Herbert Spencer, C. Buhler, Freud and Piaget and others. Each of them seems to reflect a manifestation of the multifaceted phenomenon of play, and neither, apparently, does not cover its true essence. A considerable amount of research on this issue is related to various aspects of improving the efficiency and

effectiveness of learning through certain types of games and their complexes (A. Verbitsky, A. Zhornik, A. Matyushkina, P. Pidkasystyy, S. Shmakov, O. Yankovska) ; the organization and conduct educational game reflected in the works of N. Akhmetov, L. flannel, P. Kolosov, Vladimir Platov, V. Semenov, Y. Hrutsenko and others, but the formation of active communicative position to play its rightful place [4,11, 12]. In ecology of environmental education and this works: D.N.Kavtoradze [7], V.F.Kapustina [8]. From the point of view of didactic training promising game that does not conflict with modern educational theory and can become a form of integrated education [5,13] . Theory of teaching methods presented in the national didactical concepts (Yu.N.Babanskiy, E.Ya.Holant , M.A.Danilov, I.I.Levina, .Ya.Lerner, M.Y.Mahmutov, M.N.Skatkin, T.I.Shamova, S.H.Shapovalenko).

Thus, simulation games as a method of active learning, going a long way, now is a leader in education vocational school. This method is experiencing a renaissance: the game is more effective VET, allowing time to save costs, costs for the experiment to simulate future independent professional activity, and develop creativity graduate vocational schools.

The aim of the article is illuminated with the idea of using simulation-gaming technology teaching of special subjects in agricultural vocational schools .

The main material. The introduction of VET teaching practice game methods designed to intensify educational activities of students. Not accidentally, learning game learning methods is an urgent problem in our time. The specific educational objectives of the lesson, contents, individual psychological individual student and their level of development, the game can be made with one student, group or whole class. In the application of game methods of teaching many students increased interest in teaching. These games sell better prepare students for practice, they produce stance, accustomed to collective forms of work. That game starts relaxed rapport between teacher and student. During the game the students made a habit focused, thoughtful work independently, developing attention, memory, thirst for knowledge. Satisfying their natural need for activity during the game boy "completes" the imagination is that it is not available in reality, delighted not notice that learns - learns new stores, oriented in

different situations deepens previously acquired experience, compares the stock of ideas, concepts, develops imagination.

By playing teaching methods include: business games, didactic games, games, competitions. Modifications simulation game can be considered a blitz game, game-exercise, role, operating, simulation games, etc.

Several authors [5] notes that the business game is a simulation of selected aspects of the conflict, which is executed according to predetermined rules, raw data and methods. Educational business game itself is not a model, but a means of the model laid down in the structure of the business game.

Didactic game - something multifaceted, consisting of a number of structural elements. According L.P. Borzova, the main components of the game is didactic activities and convention. During academic activities understood form of active child's attitude to surrounding reality and the convention was seen as a sign of reflection of reality [5]. According to the author, not every activity in conventional situations are playing. The game can be didactic, if the course material or portion, it may form the basis of the content of the game, usually educational material is part of a conditional content, and develops - the content of the activity component.

The writings N.V. Kudykinoy, A.M. Mastjukovy, A.Sorokina, E.Udaltsov, O.P. Yankivskoy can identify the following elements method didactic play: didactic task, the task board, game action rules games and outcome [10].

Didactic games comprise a large number of species and subspecies and depending on features that were considered basic researchers, developed appropriate classification groups.

Analysis of the works of M. Boguslawska, A.K. Bondarenko, L.V. Lokhvytsky allow to identify the main features of the method of didactic games [15], namely:

- Activating - is to intensify the interest and attention of students to the subject of study.
- Developmental - Develop cognitive abilities, intelligence, imagination in adolescents.

- Communications - the essence is to build communication skills and interpersonal relationships.
- Integrative - based on the development of skills using interdisciplinary connections.
- Training - is to build new knowledge and skills.
- Final-generalization - is consolidation, systematization and generalization of knowledge and skills.
- Samokontrolyuyucha - the skills and self-esteem, promotes the development of self-esteem and skills of control over our own actions.
- Educational - emphasizes the specific formation of the personality traits, attitudes, beliefs.

Characteristic features of business games are: the problem, purpose, objectives; reduction of time; distribution and role-playing; availability situations are solved sequentially, several situations, several stages of the game; formation of independent decisions of students; a system of incentives; strictly obstacles; objective evaluation of the game; implementation.

Based on the general typology of business games, organize them on a number of grounds: purpose, broad thematic, making the degree of freedom, making the level of uncertainty, the nature of communication among participants, openness games, game tools and shape of her and others. The development of cognitive abilities of students incentives to creative processes of their activity, relieves fatigue and create a favorable atmosphere of learning activities, raise interest in the study of special subjects in vocational schools, including agricultural profile.

Role play is used to solve complex problems mastering new fastening material, cognitive activity of students in general education skills formation, development of creative abilities, formation of professional skills, education professionally important personality traits, increased motivation, training in communication skills and future skilled workers. An educational game is a way to manage teaching and learning activities for future farmers.

There are certain features of the business game that emphasize its relevance:

1. Using simulation game provides an opportunity to align the learning process for the real professional work through role modeling functions as a career.

2. The business game creates conditions for deep and complete assimilation of subject-based system using knowledge in the simultaneous solution of educational problems and simulated.

3. During the business game implemented various levels of intellectual activity of students, reproductive, heuristic, creative.

4. Role play recreates the actual processes of professional activity by running a role that contains a set of rules that determine how content and focus, character action game.

5. Role play is a two-dimensional work: on the one hand, the student performs the actual activities related to address specific learning tasks, on the other - this activity is conditional, allowing it to be free and relaxed. This is what provides the emotional appeal of the game for VET students.

6. Role play creates interest and emotional and value attitude to student learning and future careers.

7. Role play encourages the development of personal potential student, his self-realization and self-determination in situations gaming interaction.

8. Role play performs diagnostic function - allows the student identify creative and professional abilities to realize their potential.

The effectiveness of the business game in the professional formation of future professional performance and increase student learning vocational school largely depends on the methods and technologies of its implementation. Some scholars argue that the method of its development should be the only, regardless of whether the game is educational, research, management, simulation. Others believe that the standard methods of organizing and conducting games do not exist.

In developing the technology method of play is mostly allocated 3 stages:

1. The bold design elements game that should be a prerequisite deployment of gameplay; determining the sequence of development of these elements;

2. Development of recommendations on structural components of the game;

3. Identifying characteristics of play and elucidate the influence of the mastery learning material, learning and development skills.

There is a great diversity of approaches to determine the structure of the business game. This suggests that it acts as a dynamic process, creative which leaves no room formalism dictate the methodology and technology of its preparation and implementation. Methods simulation game based on the principles simulation-training game, activity, curiosity, collective, modeling feedback problematic, effectiveness, independence, consistency, competitiveness. These principles not only increase the didactic value of the game, allow the realization of its functions: training, developing and educates, but also helps to create pedagogical conditions positively affect the process of its occurrence and effectiveness in the professional development of students. Especially in developing technology business game is important to emphasize the following points: motivation, content, communication skills, initiative, consciousness, systematic, visibility, activity and independence of its members. These principles help provide social and psychological climate in classes, positive motivation and installation of removing psychological barriers to learning students teaching material, testing their professional activities, communicative culture, develop their independence, initiative and creativity. Pedagogically appropriate methodology and technology business games can mimic future professional activity, to analyze the effectiveness of decisions, thus creating the necessary conditions for the professional growth of future agronomists and livestock experts.

By business games can not be attributed acceptance of any new, emerging, and methods of teaching and learning any game: lessons such forms as concert lesson, lesson-examination and urok- competition urok- quiz imitation piznavalno-entertainment television in the classroom, not from not only the business game, but the technology of active learning. These methods and acceptance cognitive activity of students, revival learning through every possible game situations do not meet the characteristics and conditions which define active learning technology. In the quiz competition students can take part, may not approve, but remain a passive spectator . In active learning technology "forced activity" members stimulated conditions and

rules under which a student or an active participant, hard thinking, or even eliminated from the process.

Advisable to conduct the business game method as "debate". This game has roles: "Speakers", "opponents." Thus the class will be divided into two groups. The teacher asks some questions of medium and high complexity. The first match speakers (talking to each other). They should as much as possible to answer the question. Problem opponents is to find defects in response negative, etc. or if the speakers could not answer the question - the answer to this question is given opponents. Then change roles. Ratings exposes teacher. The winner and the group that will take more points.

A simulation-gaming techniques can mimic a game form and implement action game using artificially-created educational future situations the professional activities of students [14].

In practice, the system uses the active learning model game studies: simulation, operational, role-playing, story, game-competition.

In simulation games during class simulates the activities of organizations, events, job specific people (environmentalist, agronomist, livestock, etc. Scenario simulation game contains plot developments description of the structure and purpose of simulated objects: a journey lesson, lesson-tour and more.

The operating games help out a specific implementation of specific operations (methods of conducting discussions, conferences, dispute). They are held in conditions that simulate the real situation (lesson investigation, trial lesson). Among the participants shared the role of mandatory content of, according to the problematic situation raised for discussion. These games appropriate to use these types of custom lessons, lesson-trip, tale lesson, lesson composition.

In modern vocational school play activity is used:

- as an independent technology for learning topics section concept;
- As part of a technology;
- As part of the individual parts of seminars (introduction, explanation, consolidation, control).

The implementation of educational communication, cooperation and co-creation in the "teacher - students" is provided by introduction into the educational process simulation games that involve particular social role of students (such as lesson - a press conference, lesson-court lesson like "Round Table" lesson - drafting the screenplay lesson - excursion into the past, lesson-travel etc.) as school organization, training and lessons in a form requiring mandatory cooperation of teachers and students, their joint activities based on the principles of sociability, easy communication, mutual etc., while the teacher can act as a trainer, judge, host.

Based on research H.E.Mayhner, who noted that people in the passive perception remember 10% read, 20% of what they heard and seen 30% and 50% of what he saw and heard, and if this is the perception of trainees stored in memory 80 % of what most talked and 90% of what did or create their own, it can be concluded that active learning methods dramatically improve memorizing material and facilitate its identification and subsequent targeted practical implementation [5]. Unlike traditional forms of education, implementation of the learning process of active methods allows you to build professional skills and active implementation of acquired knowledge, holistic model of self-content, thus shifting the center of the significance of the transfer, processing and assimilation of information for independent creative activity.

CONCLUSIONS

Modern professional and technical education is focused on identifying personal independence. Implement a training simulation-gaming forms and methods allow future farmers to obtain the necessary theoretical knowledge regarding norms and rules of successful communication activities, to gain the required skills and productive skills of communication, focus in situations predict the results of his and others' communication. Thus, simulation games as a method of active learning, going a long way, now is a leader in education vocational school. This method is experiencing a renaissance: the game is more effective VET, allowing time to save costs, costs for the experiment to simulate future independent professional activity, and develop creativity graduate vocational schools.

СПИСОК ВИКОРИСТАНОЇ ЛІТЕРАТУРИ

1. Активные методы обучения в природоохранительном образовании / Под ред. Д.Н.Кавтарадзе. – М.: Изд-во МГУ, 1982. – 91 с.
2. Выготский Л. С. Игра / Л. С. Выготский // Собр. Соч.: В 6-ти т. - М. : Педагогика, 1984. - Т. 4. – С. 244-263.
3. Гидрович С.Р. и др. Деловая игра «Деятельность сельскохозяйственных предприятий в условиях сельского производства». /Гидрович С.Р., Перешивкин С.А., Толордава Ж.К. // Материалы 7-ой межведомственной школы-семинара по активным методам обучения. – М.,1985. – вып. 5. – С. 16 – 17.
4. Жорник О. Використання дидактичних ігор у навчанні / Олена Жорник // Рідна школа. - 2000. - № 4. - С. 63-64.
5. Зміївська К.В. Навчальна ділова гра в організації самостійної роботи студентів педагогічних ВУЗів // Спеціальність - 13. 00.01 - загальна педагогіка, історія педагогіки і освіти. Дисертація на здобуття наукового ступеня кандидата педагогічних наук // Електронний ресурс : <http://gen.lib.rus.ec./get>
6. Использование деловых игр в процессе обучения учащихся средних профессиональных технических училищ // (Мет. рек.) – М., 1987. – 46 с.
7. Кавтарадзе Д. Имитационные игры в экологическом образовании / Д. Кавтарадзе // Биология в школе. - 1990. - № 3. – С. 46-50.
8. Капустин В.Ф. Специальная экологическая деловая игра // Методические разработки и рекомендации по деловым играм. – М., 1984. – вып.3. – С. 4 – 10.
9. Кларин М. В. Игра в учебном процессе / М. В. Кларин // Советская педагогика. - 1985. - № 6. - С. 57-61.
10. Кудикина Н. Ретроспективний погляд на формування сучасної моделі ігрової діяльності / Надія Кудикіна // Шлях освіти. – 2003. - № 1. – С. 46-50.
11. Пидкасистый П.И., Хайдаров Ж.С. Технология игры в обучении и развитии: Уч. пособие/ Моск. пед. ун-т. – М.: Рос. пед. агентство, 1996. – 268 с.
12. Пометун О. І. Сучасний урок. Інтерактивні технології навчання : наук.-метод. посібник / О.І.Пометун, Л.В.Пироженко. – К. : Видавництво А.С.К., 2004. – 192 с.
13. Сыроежин И.М., Вербицкий А.А. Методика разработки и использования деловых игр как формы активного обучения студентов.–М.: НИИ ВШ, 1981.–36 с.

14. Трайнев В.А. Деловая игра в учебном процессе. – М.: Прометей, 2002. – 345 с.
15. Щербина Д. Зміст активної комунікативної позиції учня, її структурні компоненти, критерії та рівні сформованості / Дарія Щербина // Молодь і ринок. – Дрогобич : ДДПУ імені Івана Франка, 2008. – № 11 (46). – С. 117–120.

REFERENCES

- 1.Active methods in learning of environmental education / Ed. D.N.Kavtaradze. - M. : MGU, 1982. - 91 p.
- 2.Vyhotsky /Game / LS Vyhotsky // Coll. Vol. : In 6 t. - Moscow: Pedagogika, 1984. - Vol 4. - P. 244-263.
- 3.Hydrovych et al. Business game "Activities agricultural enterprises in terms of agricultural production." / Hydrovych SR, Pereshyvkyn S.A., J.C Tolordava // Materials 7th between school-seminar on active methods of teaching. - M., 1985. - Vol. 5. - P. 16 - 17.
- 4.Zhorneyk. The Use of didactic games in teaching / Elena Zhornik // Mother School. - 2000. - № 4. - P. 63-64.
- 5.Zmiyivska K.V. Educational business game in the organization of independent work of students of pedagogical universities // Specialty - 13. 00.01 - general pedagogy, history of pedagogy and education. Thesis for the degree of Candidate of Pedagogical Sciences // Электронныу resource: <http://gen.lib.rus.ec/get>
- 6.Use of business game in the process of teaching students of vocation schools // (Matt. Rec.) - M., 1987. - 46 p.
- 7.Kavtaradze D. Simulation games in ecologically education / D. Kavtaradze // biology in school. - 1990. - № 3. - P. 46-50.
- 8.Капустын V.F. Other special ecological business game // Methodical recommendations on development and business game. - M., 1984. - v.3. - P. 4 - 10.
- 9.Klaryn M.V. Game in studying process / MV Klaryn // Sovetskaya pedagogica. - 1985. - № 6. - P. 57-61.
- 10.Kudykina N. A retrospective look at the formation of the modern model of play / Hope Kudykina // path of education. - 2003. - № 1. - P. 46-50.

11. Pydkasysty P.I, Haydar Z.H.S. Technology games in learning and development: Ouch. posobye / Univ. ped. Univ. - M .: Ross. ped. Agency, 1996. - 268 p.
- 12.Pometun O.I. Current lesson. Interactive learning technologies, scientific-method. manual / O.I.Pometun, L.V.Pyrozhenko. - K: A.S.K. Publishing, 2004. - 192 p.
- 13.Syroezhyn I.M., Verbytsky A.A. Method of development and using business game as forms of learning active students. M .: NII HS, 1981. - 36 p.
14. Traynev V.A. Business game in studying process. - M .: Prometheus, 2002. - 345 p.
15. D. Scherbyna. Contents active communication student position, its structural components, criteria and levels / Darius Scherbyna // Youth and market. - Drobobych: DDPU Ivan Franko, 2008. - № 11 (46). - P. 117-120.

Article sent: 13/03/2015