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Games as a Form of Career Guidance

Aigul Rafailevna Sushkova¹, Rezeda Rafailevna Valeeva², Alexandr Evgenievich Davydov³

Abstract

The authors of the article analyzed the scientific research on the use of methods and gamification techniques in career guidance and concluded that it is necessary to work out career guidance games, make sure that elements of physical activity are included in career guidance games, since the board career guidance games do not take into account the “hyperactivity” of the modern generation. The article presents the results of the analysis of career guidance work in the monotown (Nizhnekamsk, The Republic of Tatarstan), identifies factors of its low efficiency: a formal approach to the development of career guidance activities, absence of innovative forms of work in practice, reluctance of managers of enterprises and organizations to cooperate with educational organizations using new forms of career guidance, a low number of highly-qualified and motivated professionals working with innovative methods of career guidance. The study made it possible to identify problems in the implementation of career guidance projects in the monotown. These included: actually no chance of conducting professional tests in real production conditions; provocative policy of the management of enterprises, expressed in the unwillingness to take responsibility for safety of participants in career guidance projects; the lack of personnel in organizations capable of organizing and conducting professional tests in production conditions; the lack of corporate personnel policies of city-forming enterprises in the field of career guidance for children and youth, corporate programs for conducting professional samples. The paper describes the proprietary methodology of conducting professional samples in the form of a quest game which allows acquainting school-age children with the professions of city-forming enterprises in the monotown. Besides, measures to systematize and increase the effectiveness of career guidance work in single-industry conditions are proposed.

Keywords: Career guidance, Career guidance work, Games, Game forms, Interactive forms.

¹ Kazan Federal University, E-mail: aigulechka.92@mail.ru

² Kazan Innovative University named after V. G. Timiryasov (IEML), E-mail: r.r.valeeva@yandex.ru

³ Center for Technical Development of Children «Technoclass» (Nizhnekamsk), E-mail: mega.sppa@mail.ru

Introduction

Alongside with competence-reducing, the growth of children's expectations is becoming a serious problem in modern conditions. There is a gap: the most active and competent adolescents successfully pass unified state exams and go to study at universities in capital-cities, the rest, who stay in their hometown and enter local educational institutions, imagine their work activity rather vaguely. As a result, there is an overdeficiency of labor resources at enterprises, an overload on state support services for the unemployed, an increase in the number of asocial behavior manifestations. The authors have proposed a solution to this problem through career guidance in the form of games. Thus, the purpose of the article is to describe the authors' model of conducting professional tests in the form of quest games on the territory of Nizhnekamsky municipal district with the help of the network approach.

In the present study, the evaluation of the available experience was carried out on the basis of the analysis of educational-methodical literature, scientific literature and periodicals. The collection of empirical data was implemented by conducting an experiment during which a survey among the participants of professional samples was conducted. According to the results of career guidance events held by the authors in game forms in 2016-2018, 969 respondents were surveyed, among them 91% were schoolchildren and 9% were 12-19-year-old college students. The statistical analysis of the answers to the questionnaire allowed to confirm and clarify some theses suggested by the authors, to identify and describe the principles of the organization of game professional samples.

Methods

Game forms of career guidance are widely studied by researchers from various positions: games employed with different age categories from preschool children and primary school students to students of higher educational institutions, from career guidance in schools to work in yard clubs and centers of extracurricular activities. Here is a short review of research works devoted to game forms in career guidance.

N. D. Lukoyanova (Lukoyanova, 2015) suggests using methods with high potential, acceptable even when working with passive audiences: career-oriented games with a class, career-oriented game exercises and modeling of micro-situations. The main advantages of career guidance games are their visibility and emotional saturation.

Similarly, Ronda Ansted sees the role of "gamification" in stimulating career development, noting in her article (Ansted, 2017) the stimulating function of game methods in the field of career development motivation.

Natalia Kaszkowiak (Kaszkowiak, 2019) tells about the organization of the game tests in the field of business in Poland. The aim of the game is to provide participants with skills useful for creating and running their own business, with special attention to modern business and creativity in finding ideas for entrepreneurship.

E. V. Nikitina (Nikitina, 2012) believes that the specific feature of the game method in career guidance is creating a more relaxed, friendly and natural rather than usual atmosphere of work with high school students and modeling of individual elements of professional, life and personal self-determination.

The experience produced by N. S. Pryazhnikov (Pryazhnikov, 2007) showed that if career guidance games take no more than 25-30% of the total number of hours, they are perceived by students not as "entertainment" but as a natural form of work.

We should note, however, that the study of Lasse Hakulinen and Tapio Auvinen (Hakulinen and Auvinen, 2014) concludes the non-absolute effectiveness of gamification methods – their study showed that ". . . not all high-performing students were motivated by badges. . . . a small group was identified to be focused on the avoidance of the gamification process and reported very low motivation to icons".

E. N. Rukis and L. A. Deyko (Rukis & Deyko, 2011) highlight the game as a very effective for perception form of career guidance: it gives adults the opportunity to see the problem in general and students – to gain the skills of decision making and master the role-playing behavior.

D. A. Semiletkina (Semiletkina, 2014) studies career guidance games in the context of interactive methods of work and admits, that this method allows young people to learn more about various fields of professional activity, in a playful way to learn the features of certain professions.

T. V. Pasechnikova (Professional orientation work in the conditions of preschool educational organizations, 2013) designates the importance of career guidance work with pupils of preschool educational institutions, including didactic games that model the structure of the labor process.

V. A. Tvorozhnikova, T. V. Shiryaeva, M. N. Kostromina (Tvorozhnikova, Shiryaeva & Kostromina, 2001) introduce games in career guidance training with primary school students. At this age, work on career guidance through games is aimed at explaining to children what qualities and knowledge they need to work in the profession of interest.

Rather interesting is the study by G. F. Shafranov-Kutsev and S. N. Tolstoguzov (Shafranov-Kutsev, Tolstoguzov, 2014), in which some negative manifestations in the worldview of adolescents, requiring significant adjustments in the organization of career guidance work of university groups, are emphasized.

In the Center of extra-curricular activities in the Central district of St. Petersburg (Pedan, 2013) the following organizational forms of work on profiling are presented: games and competitive types of educational activities, excursions, educational and scientific projects, field research, laboratory and practical work. The authors show a higher efficiency of profiling using network schemes of the university over the past five years.

I. V. Sorokina (Sorokina, 2013) devotes her study to the question of organization of career guidance games in clubs at the place of residence, reveals the nature of the game and formulates recommendations for solving organizational problems of career guidance games in clubs at the place of residence.

There are also non-standard approaches to determining the directions and prospects of career guidance for children. Lada Adamich and Ismail Onur Filiz (Adamich & Filiz, 2016) made an attempt to identify hereditary factors of the child's professional choice, refuting the possibility of working with children at the educational level (school, college or institute).

As you can see, game forms of career guidance work have been studied from different perspectives in the modern scientific world, but what special methods and forms of implementation should they have in the conditions of monotowns – this question remains open.

Results and Discussion

Since 2014 in Nizhnekamsk municipal district (hereinafter – NMD) the implementation of a new project on career guidance "Program of career guidance of schoolchildren in Nizhnekamsk 2014-2017" has started (Program of professional orientation of students in Nizhnekamsk city: 2014-2017).

The strategy of development of students' career guidance in Nizhnekamsk is aimed at preparation of well-oriented students with strong base knowledge for the course of basic and secondary school and deep knowledge of major and minor subjects.

Currently, the city has built career guidance for students in chemical production and technical specialties, carried out on the basis of integration of masters of industrial education of "Interschool training plant"), organizations of Unities of Consumer Societies, schools, teachers of universities in the framework of the complex of the above activities (Mukhametzyanova & Shaykhtudinova, 2018).

The implementation of this set of measures is carried out taking into account (Position in the III Festival of professions "World of professions of Nizhnekamsk"):

- changes in methods and technology of training on the basis of modern information and educational environment, as well as introduction of new forms of education (network interaction);
- creating conditions for the implementation of practice-oriented education on the basis of organizations of the Unities of Consumer Societies;
- creating conditions for work with gifted students: research activities, the Olympic movement with the involvement of the universities of Nizhnekamsk and Kazan.

The main objective of the comprehensive program is to create a single educational space for students, including all participants: schools, institutions of secondary professional and higher education.

Since 2014, vocational schools of Nizhnekamsk have been implementing subprograms "Programs for career guidance of schoolchildren and youth for 2014-2017": "Primary school – Unities of Consumer Societies – Employment – Higher Education Institutions", "World of professions in Nizhnekamsk" (University of talents, 2019) (for students of 7-9 grades), "Introduction to professions" (for students of 9 grade).

Among the game forms of career guidance work carried out by Nizhnekamsk branch of Kazan Innovative University named after V. G. Timiryasov (hereinafter Nizhnekamsk branch of KIU) (Kazan Innovative University named after V. G. of Timiryasov, Nizhnekamsk branch, 2019), it is possible to allocate the activities which are carried out together with Kazan Open University of talents 2. 0 (University of talents, 2019): psychological trainings, trainings of breakthrough competencies, professional tests in the form of quests for secondary and vocational schools, art therapeutic technologies – for preschool children and primary school students.

The main organizational principle of career-oriented quests, developed by the authors of the article, is modeling of the production environment and specific production situations in which the participants of the quest are immersed. Modeling is implemented through the selection of the most important characteristics of the profession, production and labor process, development of a scenario with clear tasks and a system of incentives.

The authors have determined sequence of the quest-game:

1. Introductory interactive lecture: introduction to procedure for the quest, basic data on production, professions, labor processes;
2. Division into teams and acquaintance with "leaders": mentors of production, able to comment while carrying out tasks, share their experience and facilitate team's work;
3. Distribution of "route charts" (see table. 1): the job quest which contains specific data on the studied professions;
4. Tasks performances;
5. Facilitation: comprehension examination, assessment of participants ' feelings and work with comments.

Table 1

Route chart

No	Time, min.	Step	Testing profession	Venue	Content
1.	10	Acquaintance with tire production		Assembly hall	Presentation of the direction (video), overview of the tire production technology. Division into teams (the host by himself at random). Move to the territory in front of the dining room to the display stand with your team.
2.	10	Components of the rubber	Laboratory assistant, tire	Display stand	Choose a card with the task.

No	Time, min.	Step	Testing profession	Venue	Content
		compound quality	designer, engineer for the development of fabricated rubber products		<p>Determine according to the task on the card the component of the rubber compound on the display stand.</p> <p>Stick the card to the correct component on the display stand.</p> <p>Check with the host the correct answer.</p> <p>Move with your team to the station 1.</p>
3.	10	Preparation of the rubber compound (selection of ingredients (list))	Operator of the rubber compound preparation apparatus	station 1	<p>Choose the components (using the knowledge gained at 1 stage).</p> <p>Measure out the ingredients in the proportions specified in the recipe mixture using the scales.</p> <p>Fill in the "Tank" (a big bowl).</p> <p>Stir the mixture (dough).</p> <p>Bring the result to the next station.</p> <p>Move with the results to station 2.</p>
4.	10	Mixing ingredients, preparation for molding (rolls)	Roller	station 2	<p>Roll out the dough (using a roller pin) on the board and cut it into strips.</p> <p>Move with the results to station 3</p>
5.	10	Assemblage of layers and tire forming	Operator of the tire assemblage apparatus	station3	<p>Line up the tires in the right order (by layers) on the assemblage machine: 1) innerliner -2) cord 3) protector</p> <p>Move with the results to station 4</p>
6.	10	Curing	Operator of the curing machine	station 4	<p>Draw the tread pattern on the workpiece.</p> <p>Shape the workpiece like a wheel.</p> <p>Set the workpiece in the cabinet, set the time of "curing" (baking)</p> <p>After the allotted time, remove the finished product.</p>

No	Time, min.	Step	Testing profession	Venue	Content
					Move with the team to the Quality Department
7.	5	Defining quality of the tires	Quality department laboratory assistant	Quality Department	Identify the defects on samples of tires. Stay in for the next task.
8.	5	Transportation of the finished tire	Forklift Driver	Quality Department	The relay is to immerse the tire in the car and to carry from point A (production unit) to point B (warehouse). Stay in for the next task.
9.	5	Storage of tires	Loader	Warehouse	Lay the tires in the manner specified in the manual. Return to the Assembly hall.
10	10	Reflection. Output testing		Assembly hall	Distribute personal questionnaires and pens Summarizing. Sharing feelings at the end of the event. Collecting completed questionnaires and pens.

For example, during the quest on acquaintance with the tire production professions in the Children's health camp "Seagull" (Children's health camp "Seagull", 2019), the guys created a rubber compound, processed it on a rolling machine, cut the layers of the tire, made its assemblage on the machine mode and carried out curing. Afterwards, carried out "quality control" of the real tires, loaded them on the "electric car" and transported to the "warehouse". All material resources were prepared from accessible and safe materials. For example, the rubber compound was prepared from the following components.

At the special display stand there were presented real samples of rubber compound components, at the stations, where children performed their tasks, were placed photos of the equipment and production process. In addition, the quest conducting was preceded by a brief interactive lecture on the essence of the professions reviewed in this quest.

Thus, knowing the peculiarities of labor and production processes, children are actively immersed in the game (quest), while acting according to the scenario specified by a particular profession. The tasks, physical activity, the competitive nature of the quest, short duration assures high motivation of the participants from the beginning to the end of the quest. As seen from the results of the survey,

participants during the quest on average absorbed up to 70% of the information about the production process, the features of the professions and labor operations.

Following the results of the career guidance activities conducted in Nizhnekamsk branch of KIU in game forms, a survey was conducted, 969 respondents passed the professional tests in 2016-2018, 91% of them were schoolchildren and 9% were students of vocational institutions aged from 12 to 19 (the population of this age group in Nizhnekamsk is 23282 people).

The analysis of the data revealed that 87% of the schoolchildren and vocational institutions students noted the value of the activities for self-determination in life, at the same time, only 37% of the respondents decided on the choice of their future profession. Abroad the youth pass for about 40 professional tests for self-determination.

In order to decide on the future profession, the majority of children (47%) are going to enter a university, although studying at a university can be called one of the stages of implementation in the chosen profession. Subsequently, it turns out that according to the Russian Statistics (Almost 60% of Russians do not work in the specialty, 2012), only 40 % of young people work in the specialty, and this is the financial means of the state/enterprises (for budget/target places) or parents /children themselves (for places paid under educational contracts). To say nothing of the fact that children lose 4-6 years of their lives to get a profession that is in no way useful in their future life, and society will not receive demanded specialists. 18% of young people attend tutors for this purpose, attend various events to improve their intellectual level, prepare for the Basic State Examination and Unified State Examination, 10% do nothing, and 24% of respondents do not know what to do.

93% of respondents wished to re-visit career guidance events, although in reality only 12% of participants of professional games came for the second time. This is due to the workload of children mandatory program of secondary general and secondary vocational education, additional activities from the municipality, not always related to the interests of the students themselves, but interesting for the city-forming enterprises, the rapid emotional burnout after attending a plentiful number of events, the lack of children's skills to bring plans to their implementation.

Thus, according to the results of career guidance in the form of a game in Nizhnekamsk branch of KIU for the 2016-2018 academic year, the following points should be highlighted:

The effectiveness of career guidance in the form of games is determined at the output by a professional self-determination of young people;

For the effective work of career guidance games regular participation of children in a large number of professional activities is needed;

It is necessary to increase mobility of professional games' participants with the help of a municipal vocational guidance system which would reduce students' load by building a scheme of effective games, eliminating repetitive elements and increasing the scale of activities.

In this regard, it is interesting to analyze the organization of career guidance in Australia and some other countries, conducted by Leisa D. Sargent, Shelley R. Domberger (Sargent, Domberger, 2007). In

educational institutions, there is often a policy for vocational guidance. Vocational training programs, which are part of the core curriculum, are often developed and implemented in schools.

In some countries, career guidance programs for adolescents include working visits to enterprises and research on corporate materials.

Career counseling is widely used in foreign practice. The role of a consultant is usually played by teachers or school psychologists, but there is an alternative model for such career consultants, which involves work of special agencies outside the school, closer to the labor market and regardless of the administrative board of the educational institution.

Thus, the scope and forms of implementation of career guidance work abroad is much wider, actively tied to the interaction with municipalities and corporate partners, which ultimately gives positive results for business, and for the state and society.

Summary

Summing up, it should be noted that the majority of experts are aware of the importance and effectiveness of game forms of educational, including career guidance, work. The experience of the Nizhnekamsk branch of Kazan Innovative University in partnership with the University of talents (Kazan) showed the effectiveness of the game forms in the field of vocational training of modern schoolchildren.

However, the use of non-formal forms of career guidance faces some difficulties:

- Very high differentiation of older students in terms of career and educational motivation;
- As a result – low motivation to participate in career guidance activities (students with a clear individual development plan (hereinafter IDP) – because of the certainty in life, and the rest – because of the non-desire at all any action);
- The lack of support at the municipal level, including from the education system (schools are overloaded with their events, preparation for the Basic State Examination and Unified State Examination, Olympiads, the municipality is focused on highly specialized requests of city-forming enterprises);
- Difficulties with organizing career guidance activities in game forms at the enterprises of city and district (transportation of children, safety in production conditions, "immediacy" of personnel policy, profanation of events by a managing staff).

Conclusions

As a result of the methodical and research work the authors have identified the most important factors that will contribute to the success of the game forms of career guidance:

- Active open personnel policy of the municipality and enterprises of the city;
- System of motivators for participants of the municipal system of school and youth orientation;

- Integration of career guidance activities in the curriculum of schools, colleges and universities;
- Availability of sources of material support of career guidance activities (municipal and regional programs, enterprises);
- Socially responsible enterprises ready to conduct career guidance activities on their territory.

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