МИНИСТЕРСТВО НАУКИ И ВЫСШЕГО ОБРАЗОВАНИЯ
РОССИЙСКОЙ ФЕДЕРАЦИИ
Федеральное государственное автономное образовательное учреждение
высшего образования
«ТЮМЕНСКИЙ ГОСУДАРСТВЕННЫЙ УНИВЕРСИТЕТ»

РЕКОМЕНДОВАНО К ЗАЩИТЕ
В ГЭК
Директор школы
(Ph.D., кандидат филологических наук)
_____ А. Щербенок
_____ 2022

ВЫПУСКНАЯ КВАЛИФИКАЦИОННАЯ РАБОТА

ENGLISH-BASED BUSINESS GAME AS AN ALTERNATIVE FORMAT OF
TEACHING AND LEARNING / ДЕЛОВАЯ ИГРА НА АНГЛИЙСКОМ ЯЗЫКЕ
КАК АЛЬТЕРНАТИВНЫЙ ФОРМАТ ОБУЧЕНИЯ

44.04.01 Педагогическое образование:
Магистерская программа «Экспериментальное высшее образование»

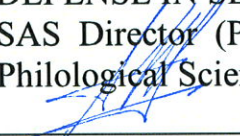|		
Выполнила работу Студентка 2 курса очной формы обучения		Логунова Евгения Владленовна
Научный руководитель Доктор наук в научной области общественных наук научного направления педагогических наук		Турк Марко
Рецензент канд.филол. наук, доцент каф.английской филологии ФИЯ ТГУ		Темникова Ирина Геннадьевна

Тюмень
2022

MINISTRY OF SCIENCE AND HIGHER EDUCATION
OF RUSSIAN FEDERATION
Federal Autonomous Educational Institution of Higher Professional Education
«UNIVERSITY OF TYUMEN»

SCHOOL OF ADVANCED STUDIES

RECOMMENDED   FOR   A
DEFENSE IN SEC
SAS Director (Ph.D., Candidate of
Philological Sciences)
_____ A. Scherbenok
_26ᵗʰ of May___ 2022

GRADUATE THESIS

ENGLISH-BASED BUSINESS GAME AS AN ALTERNATIVE FORMAT OF
TEACHING AND LEARNING / ДЕЛОВАЯ ИГРА НА АНГЛИЙСКОМ ЯЗЫКЕ
КАК АЛЬТЕРНАТИВНЫЙ ФОРМАТ ОБУЧЕНИЯ

Master degree program «Experimental Higher Education»
44.04.01 Pedagogical education

Completed by the student of year 2
Of the full-time type of enrollment

Logunova Evgeniia
Vladlenovna

Supervisor
PhD., Professor of Higher Education
Pedagogy

Turk Marko

Reviewer
Candidate of Philological Sciences,
Associate Professor of English
Philology,
Faculty of Foreign Languages, TSU

Temnikova Irina
Gennadyevna

Tyumen
2022

TABLE OF CONTENTS

INTRODUCTION

People have been playing games for a long time. Motivation, being one of the strongest features of the game and the gameplay, has become a subject of interest of educators around the world. Thus, since ancient times, gamification has been used to activate the educational process. The paper provides examples of educational theories based on the principle that active and playful activities contribute to the student's learning, their application in higher education, and also considers the design of a business game created on the basis of the Yugra State University in English.

The relevance of the work is driven by the growing popularity of the project-based learning format and the as a leading learning format at universities increasing interest in the game format of training. In order to improve the quality of projects carried out by students, a new generation of students needs new formats, one of which may be the format of project activities based on business games that have successfully proven themselves in the business sphere.

The object of the study is determined as a problem-based learning.

The subject of the study is a business game in English as a way of conducting project activities.

The purpose of this work is to consider the design of project activities in the format of a game as an alternative and more effective way of conducting project activities, motivate students to participate and enhance the quality of project work, as well as to improve English-speaking skills at Yugra State University.

Based on the purpose of the study, the following **tasks** were put forward:
1. identify the features of the game and their use in the educational process;
2. analyze the learning theories which are applicable for the game design;
3. make an educational business game design;
4. analyze the effectiveness of using the format.

The goals and specifics of the described material determined the choice of **research methods**. The solution of the tasks is based on a general methodological

system approach and special private scientific methods and techniques: comparative analysis, observation, experiment, interviews and questionnaires.

The practical value of the work lies in the fact that the information obtained during the project implementation can be used for the implementation of project-based courses both in the study of foreign languages and any discipline, the presented material can be used for the implementation of project activity courses both in the study of foreign languages and any discipline as well as for evaluating interdisciplinary projects of students.

The logic of the research and the sequence of solving the tasks determined **the structure** of the work. The study consists of an introduction, two chapters and conclusions to them, a main conclusion and a list of references.

The introduction substantiates the choice of the topic, its relevance, scientific novelty, defines the object and subject of research, characterizes the goals, objectives, methods and practical significance of this work.

The first chapter 'Theoretical background of game concept usage for educational purposes' of the master's thesis contains a theoretical base formed as a result of the study of a large number of sources, including recent years, and gives an idea of the main aspects of the study. In this chapter, the elements of gaming activity are considered, a comparative analysis of game-based learning and gamification approaches is carried out, as well as an overview of such fundamental learning theories as experiential learning (learning through experience) and constructivism, necessary for the design of the educational part the project. When considering modern approaches, the author turns to the analysis of the fundamental works of such figures as Lev Vygotsky, John Dewey, David Kolb and Jean Piaget.

The conclusions of the first chapter summarize the results of the theoretical layer of this study.

The practical part of the work is presented in the second chapter 'Project Design and Implementation'. The first paragraph explains the context of the university and the formulation of the problem. The second paragraph presents the design of the game and the project implementation model, analyzes the results of

feedback from participants and observations made during the business game. The third paragraph presents recommendations for the implementation of game-based learning in the educational process of universities.

The conclusions of the second chapter highlight the results of the project and provided suggestions for further implementation in university context.

In conclusion, the results of the study are summarized.

List of references includes 60 sources, 58 of those are in foreign languages.

CHAPTER I. THEORETICAL BACKGROUND OF GAME CONCEPT USAGE FOR EDUCATIONAL PURPOSES

1.1 GAME-BASED LEARNING AND GAMIFICATION ELEMENTS IN THE LEARNING PROCESS

People have been playing games since the beginning of human civilization. Games served not only for entertainment, but were an important social tool that allowed people to establish communication [Spanos, 2021].

Scientists cannot come to a common opinion regarding the exact documented date of the implementation of the first game. According to one data, the first game was invented about 7,000 thousand years ago in Europe, and by time frame it refers to the Bronze Age. However, there is no reliable evidence on rules and the way of the game [Kumar, 2019].

The first game with documented rules, which, moreover, is implemented in a new format in the present tense, is the game 'The Royal Game of Ur', that was first played in Mesopotamia about 5000 years ago [Spanos, 2021].

Another evidence shows that games were spread around the world. The archaeologists find proofs, such as paintings and frescoes, of puzzle games around Egypt area and in the erstwhile Babylon civilization location. Nowadays, these kinds of games found in these places are usually classified as *'intellectual'* or board games. In addition, there were other types of games that were more dynamic in nature - the sports and outdoors games. One of the most famous which our civilization has taken to modern reality is the Olympics, the sport event that initially lasted one day until 684 BC. The ancient Olympic Games, represented as a series of athletic competitions among such sports, as running, long jump, shot put, boxing, pankration and equestrian events.

Now the range of types of games is widely represented on the market. So, for example, in addition to the above-mentioned first variants of board and sports games, the modern industry with the development of technological potential has been replenished with such a type of game as video games. The history of video games

originates in the 1950-1960s, within the design of first simple samples and simulations [Fishcer, 2021].

If we look at all the various types of games that exist, it will be noticed that they all have ***common principles*** [Gamifying education: what is known, what is believed and what remains uncertain: a critical review, 2017]. Therefore, in all the games described, we can identify:

- The motivational principle

People participating in any kind of game should be motivated. Their motivation can be represented in different forms - either extrinsic (comes from outside and involves completing a task or other outside causes such as a desire to get a reward or a will to avoid punishment), or intrinsic. which comes from within and is connected to the reason of self performing [Fischer, Barabasch, p. 90].

- The principle of unexpected revelations and rewards

Additional incentives (whether it's an additional fee, an audience award, bonuses, praise not provided for by the original rules of the game, support from fans cause positive emotions among participants, as well as curiosity, which can turn into a desire to achieve the final goals of the project, competitions or tasks.

- The status principle

According to Maslow's pyramid of needs, self-actualization is the most important need for the human being [Desmet, Fokkinga, 2020]. With that in mind, we can assume that the majority of people want to become the best one in their sphere. A well-structured process, where participants are offered many opportunities to demonstrate success and progress, might allow a person to prove their advantages both to himself and to others. Success indicators (such as badges, badges, medals, souvenirs, oral form of expression, certificate) can become a stimulating factor of highly productive activity.

- The reward

Rewards can take different forms - for example, status enhancement, new acquaintances, personal, physical, emotional. However, it should be borne in mind

that they all depend on the target audience of participants and the purpose of the game itself. This element is connected to the first one, concerning motivation.

- A limited amount of time

As set in any rule of any games, there are certain limitations on timeline. The participants have a certain amount of time, which they must use to complete the game - this serves as a limiting framework, spurring the achievement of the goal (to win).

- The principle of voluntary participation

According to Nicola Whitton, 'there is no accepted definition of the term 'games', as far as no accepted classification and definitions depend on the disciplinary background of those who create them'. However, we can construct a definition based on described principles that game exhibit.

Game is a physical or cognitive load, which is aimed at achieving a certain goal, limited in time and structured by the rules of conducting.

Games are presented in multiple forms; their diversity increases with the development of technological progress.

Games can be classified by several factors. Welbers et al [Gamification as a tool for engaging student learning: A field experiment with a gamified app, p. 100] created and elaborated a framework. categorizing games by the aspects:

- Digital (video games, VR);
- Non-digital (educational games);
- Game's purpose (entertaining, educational, business);
- Genre (according to Herz [Herz, Merz, 1998], action, adventure, fighting, puzzle, role-play, simulations, sport, strategy);
- Subject discipline (health, society, mathematics, language, engineering, general knowledge, geography, science [Herz, Merz, 1998]);
- Platform of content delivery (video console, PC, online games, second life, mobile game, alternative reality, outdoor [Herz, Merz, 1998]).

The elements of the game are presented in the form of a hierarchy, with dynamics at the top, mechanics in the middle, and components at the very bottom.

In the pyramid of hierarchy, however, it is difficult to include the accompanying elements of the game, such as the feelings and experiences of the players, although they are the key point. The elements of the game are presented in the form of a hierarchy, with dynamics at the top, mechanics in the middle, and components at the very bottom. In the pyramid of hierarchy, however, it is difficult to include the accompanying elements of the game, such as the feelings and experiences of the players, although they are the key point. The most effective use of the key elements of the game will allow you to create a high-quality game.

Thus, *dynamics* refers to the main elements of the game or the conceptual elements of the game, the basic structures. However, this is not the same as the rules. The dynamics can include emotional impact, the logic of events, the nature of interaction between players. Mechanics refers to the goals to be achieved, the element of chance and luck, interaction and cooperation, feedback, resource acquisition, reward, priority, winning situation [Lee, Hammer, 2011].

Mechanics refers to the goals to be achieved, the element of chance and luck, interaction and cooperation, feedback, resource acquisition, reward, priority, winning situation [Lee, Hammer, 2011].

The *components* are concrete embodiments of mechanics and dynamics. The components include glasses, avatars, badges, the most difficult task of the level, closed content, gifts, leaderboards, levels, quests, social interaction, teams, virtual goods [MDA: A formal approach to game design and game research, 2004].

However, when creating a game, it should be borne in mind that one cannot arbitrarily apply any elements in education or business, since the game element is the starting point, and not the finished product. Rewards do not necessarily motivate. Moreover, sometimes they demotivate. The activity can be exciting not because one expects a reward in the form of a badge or a monetary reward, but because you feel that you are doing something useful, or because of the pleasure of teamwork.

Education is a key sector where gamification has been actively studied and implemented, due to its motivation to increase the motivation of students. The introduction of gamification elements in the learning process and the development

of training courses in different disciplines can help to engage in a productive educational learning environment, and helps to change the behavior of students in the desired direction [Danka, 2020].

Motivation is a part of human's psychology. Motivational aspect is responsible for the way we choose what our time investment is worth, the amount of energy one can give for the completion of a certain action, what the individual thinks and feels about it and how they can redirect emotions into energy to complete the task, and how long one can keep persisted in the task [Relationships between university students' achievement motivation, attitude and academic performance in Malaysia, 2010]. Motivation is 'the reasons underlying behavior' [Alizadeh, p. 15], which means that motivation can be defined as a process, where a need activates a drive 'aimed at a goal or incentives' [Alizadeh, p. 17]. In the learning process motivation reflects in the amount and efforts which students are ready to devote to the learning task, their persistence, and coping with the emerging difficulties during the learning process [Berger, Karabenick, 2011].

Motivation is an important component of a learning process. Particularly, for getting students into academic activities. Furthermore, it is important to predict students' motivation as it determines the amount of learning content a student will be able to take and process. Motivated learners use higher cognitive processes [Corno, Mandinach, 1983]. Therefore, motivation is one of the predictors of a student's academic achievements.

Based on that, we can include a working definition of motivation.

Motivation is defined as a willingness for doing something (e.g. learning a language) and reaching setted goals without psychological inconvenience (pressure). It is the reason that keeps us moving [Sun, Gao, 2020].

Thus, the ability to increase motivation among students is the main advantage of the game format, but not the only one. Another factor is the evaluation of learning through a game format. Firstly, the game format allows you to conduct an assessment 'unnoticed' for a person, as much as possible, preventing a stress factor that can affect the result. Secondly, the game takes place in real time, and the teacher

or any interested person has the opportunity to test the real skills of a person, excluding the possibility of cheating.

Gamified assessment tools (GAT) are known to be used at different companies - for instance, Kaspersky. Strong cybersecurity is one of the most important areas. Companies around the world are working on developing complex and efficient protection systems. Yet, a human factor is known to be a gap in the cybersecurity fabric. Human factors represent a main cause of cybersecurity incidents - employee behavior and their low motivational level in learning cybersecurity is a challenging factor. Thus, Kaspersky management representatives focused on investigating such questions, as:

● how to increase employees' motivation in learning cybersecurity trainings;
● how to evaluate employees' current level of cybersecurity;

As a solution, a GAT was developed, helping the HR department to quickly measure the overall situation with cybersecurity awareness.

The design of the GAT consisted of three scenarios - working in open space, traveling, home office. Each employee got twelve different situations that are connected to different cybersecurity skills. An employee goes through each of them, assessing whether the presented actions of a user are risky or not and expressing the level of confidence in their response using a chip. Providing an answer, a participant got a certain number of points. At the end of the test, calculating a final score, the system counts both the answer and confidence level. To prevent cheating and make the assessment more interesting scenario types are provided to employees randomly. Twelve situations for each scenario are also randomly chosen from the library of 225 which means that fellow users will have different scenarios for evaluation. After users complete all the zones, they get the overall score, which is an assessment of their cybersecurity awareness level and feedback on every zone, with explanations and useful tips. As an award, a participant got a certificate. With that, simultaneously an administrator got a detailed report of each participant on every topic including scores, number of right answers and confidence level. This information helps in

planning further trainings on security awareness more effectively [Gamifies Assessment Tool, 2022].

Examples when game components were used in the educational process have been known since the Ancient Greece times. In the Republic, Socartes argues that play is a crucial aspect of the 'philosopher-kings' instruction. Socrates stressed out, that there must be a distinction between play that distracts from learning and 'law-abiding play' - the one that encourages the contemplation of the ture and the good [Hellerstedt, Mozelius, 2019]. Having this idea, Socrates argues that games do several functions: helps in revealing students' natural predilections, helps educators to discover students' capability of engaging in serious studying, activities students' memory by fostering more engagement than lectures do, and it enhances the skills, required for the royalty , such as critical thinking, analytical abilities, limberness of mind [Hellerstedt, Mozelius, 2019].

The study of the game format in application in training continued further. For instance, Vittorino da Feltre, an educator, renewed the idea that games could be applied in education. For example, he referred to the experience of ancient Egypt, where games were used to teach mathematics, as a probable reference to a Mancala game [Hellerstedt, Mozelius, 2019]. Later, in the 17th century, John Amos Comenius, introduced a systematic theory of education, where he saw game (ludus) as an ideal form of learning. His work, Schola Ludus [Loucky, 2008], is a preface to a work on language education through dramatization. The work was revolutionary because it was the first described case of the integration of games in education, where 'interest' and 'fun' go hand in hand with a 'serious' academic process.

In the 20th century game-based learning, a pedagogical concept, was introduced at a university level by Jean Piaget (1973) and Lev Vygotsky (1978) [Educational Learning Theories, 2015]. Examples of the use of the theories of Vygotsky and Piaget are discussed in more detail in the second chapter. Later in the 1980s, after the technological breakthrough and the beginning of the use of computers in people's daily lives, Mark Lepper (1975) and Thomas Malone (1981) first presented an analysis investigating why computer games are engaging

and stimulate intrinsic motivation, which late transformed into the taxonomy of intrinsic motivation [Gordova, Lepper, 1996].

Taking into account that motivation is the strength of the game, the concept of game-based learning was created, which assumed the construction of an educational lesson or course in the format of a game.

Therefore, motivation is considered the main factor for implementation in the educational process. However, the researchers highlight two more advantages of using the application of gamification to improve students' educational outcomes [Alsawaier, 2018]. An important advantage of the educational process based on the game is the experimental nature, i.e. the learning environment is built in such a way that the student knows in advance about the possibility of making a mistake. In fact, he can't pass the game without making mistakes. To be perfect in the game means to experiment, because the student knows that even in case of defeat he will be able to start anew, taking into account what the student failed to do in the first and improve the result.

Marketing has adopted gamification elements as well exactly because of the motivational component. All forms of product or business promotion are usually game-based - for example, for example, by receiving tokens or stickers when buying goods for a certain amount, which can later be exchanged for a certain product. Another example of a promotion is an example when they advertised not a product or service, but *a positive lifestyle* [Raba, 2014]. Thus, in 2010 the company Supermono released a game called 'EpicWin', a To-Do mobile app with elements of RPG. The goal of the game is to encourage participants to complete the routine chores. By entering into the database the things that need to be done on schedule and after their successful completion, you develop your avatar character.

Taking into account that motivation is the strength of the game, the concept of game-based learning was created, which assumed the construction of an educational lesson or course in the format of a game.

Analyzing the use of games in the educational process, two terms are often found - game-based learning and gamification.

Game-based learning - a created game-like environment, which results in reaching the educational objectives through gamified activities based on a plot [Foundations of game-based learning, 2015].

Gamification - the use of elements included into the principles of the game to solve non-game problems, such as business, social, educational [What is gamification in learning and education?, 2018].

Turning to the modern definitions of the two approaches, one can immediately notice that a significant difference in the approaches is the fact that when using game-based learning, the entire educational environment (for example, the entire course) is built with a specific game plot, while gamification is the addition of individual game elements to achieve one specific small goal. Game-based learning environment is characterized by a risk free-setting educational atmosphere, where learners acquire new concepts and practice new skills. Based on the game plot, the students' progress is directly related to their understanding of the teaching material. Game-based learning involves designing learning activities so that game characteristics and game elements inhere within the learning activities themselves. In order to better distinguish between these two approaches, a comparative table was compiled highlighting certain characteristics of game-based learning and gamification:

Table 1

Comparison of two game approaches implemented in the educational process

GBL	Gamification
A role is introduced. A student plays a different character according to the plot.	No role is introduced. A student acts in the frame of his or her real life situations.
The aim is to unravel the motive of the storyline, while simultaneously studying new topics and gaining new skills, in	The student learns a specific skill, and the gamification elements help him in this.

order to achieve the goal set by the plot of the game.	
The reward is due to the content within the project (improvement within the game, transition to a new level)	Quantitative remuneration (points, scores, leaderboard, rating) does not affect the storyline, short-term stimulation of continuing education
The approach to the content is based on the principle of the primacy of the plot of the game and an additional training component.	The basis of the content is training and, as an addition to it, a game element.

Gamification in the business sphere is widely used not only for marketing purposes. The learning environment, as described in the discussion of game-based learning concept, is represented in examples of companies, which use games for formal training of their workers. Companies successfully use the method of creating games to solve business problems and train employees. For instance, businesses adopt examples of the use of gamification from education, introducing gamification into the employee training process to increase the efficiency of the company's work. Thus, one of the problems Microsoft faced was testers' recruiting. The problem in finding testers was that all the work on detecting errors in the work of Microsoft Office and Microsoft Windows is done manually. Firstly, this is a voluminous work, and secondly, it has a monotonous character. Difficulties in finding specialists arise even among people who test software in English, without taking into account such less common languages as, for example, Urdu. To solve the problem, Ross Smith, the head of one of the groups of testers, found a non-standard solution, transforming the software testing process into a game called Language Quality Game. It is noteworthy that the game was held in their free time, and despite this fact, 4500 employees took part from around the world [Gopaladesikan, 2013]. The game was

based on the principles of external motivation - employees received points for the error found (namely, incorrect use of language), after which the points scored were transferred to the leaderboard. The organizers deliberately added obvious errors and incorrect translations to make sure that the testers are really viewing the materials. We tracked both the individual results of each tester separately, and the overall result of the regions, due to which a team work component was introduced. We tracked both the individual results of each tester separately, and the overall result of the regions, due to which a component of teamwork and additional internal motivation was introduced (unwillingness to let the team down, a sense of belonging to the community). As a result of the project, the testers viewed more than half a million Windows 7 dialog boxes, reported on 6700 inaccuracies found, thanks to which they managed to make significant adjustments and changes to the processes.

Another example is related to the well-known in the 2000s company Dodgeball - the company that created one of the first commercially successful mobile app, which allowed users to check-in different places (presumably, places of public catering) and see the most popular locations where others have put the most marks. The problem, which has been identified by the company, was that if users saw that many had already checked in, they also wanted to do it, but if they saw an empty card, they did not want to check in. It was necessary to reach a critical mass, that is, to involve enough people to motivate others to register. Dennis Crowley approached the problem of the management company from the point of view of gamification implementation, but already as the founder of another company with similar functionality *(Foursquare)*. He identified several goals for the introduction of gamification techniques into the functionality of the application:

- new users attraction;
- an opportunity to choose - previously, Dodgeball did not have a diversified option menu. The number of actions were limited - once could only check-in and see other users' marks. However, according to user comments, services seem more attractive if they have advanced functionality [Fischer, 2010] ;
- create a sense of moving forward and achieving new goals;

- add an element of social interaction, which is always closely related to the game.
- form a new habit in order to increase the number and frequency of marks in the application.

Foursquare developed a complex system of badges of various levels that users received for marks in various places, and also came up with a 'mayoralty' — a user who was marked for 60 days in some institution more than other visitors became the 'Mayor' of this place, and remained there until the number of marks of another user did not exceeded the number of 'Mayor' marks. The approach worked. The company has become extremely successful, in December 2013 it had more than 45 million registered users. Gamification was not the only secret to success, but it also played an important role [Frith, 2013].

The most known example of the use of gamification for educational purposes in Russia is the company 'Ikra'. As a separate area of their activity and service, the company offers to different business representatives a variety of games, aimed to help them in developing soft and innovative competencies of their employees. The company positions business games as a universal tool for simultaneous involvement of a large number of participants (from 15 to 400 people). The uniqueness of the company is the fact that there is a function of creating a business game for a specific customer request. Examples of the plots of games developed by the company include 'Hunters of Utopia' - a game where players try on the role of time travelers whose task is to move from era to era and create new products in the changing technological context of the era. Thus, participants develop skills in finding breakthrough solutions [Business Games, 2022]. [1]

Another example is a game dedicated to improving the skill of effective communication - 'To be able to do everything, not to be afraid of anything'. In this simulation game, different departments of the company face real types of internal and external customers, work out professional tasks, and find a new approach to

---

[1] RUS Деловые игры, 2022

them through creative thinking. In addition to these examples, the company also implements games for working with skills such as emotional intelligence, intellectual team building, adaptability and creative thinking.

Describing the principles of the game, it was noted that when creating and conducting the game, it is necessary to take into account the information about the target audience - age and appropriate behavioral features as one of the crucial factors. At the moment, representatives of Z generation make up 30% of the entire consumer market in the world [SberCIB study: Generation Z is already setting new consumption patterns, 2021][2]. In particular, the Z generation is currently the main consumer of educational content. According to a study conducted by Sberbank Investment Research analysts, representatives of this generation consider higher education and training to be one of the main goals. So, among the respondents 73% have either already received higher education, or plan to receive it in the future. For comparison, among millennials - 55% of people with a higher education diploma, in generation X - 70%. In addition, representatives of generation Z are open to using online technologies and, in particular, to taking online courses, therefore, according to the survey analysis, generation Z finds online learning a comfortable and acceptable option (63% vs. 45% for millennials). Also, 31% of Generation Z representatives signed up for paid online courses in 2020 (against 20% of millennials) [SberCIB study: Generation Z is already setting new consumption patterns, 2021]. [3]

Generational theory, offered by William Strauss and Neil Howe, provides the hypothesis that people born in a certain period of time represent a cohort which mindset patterns and common attitude features were influenced by same history-graded factors (e.g., World War II, financial crisis of 2008, wireless internet connection invention, etc.,) [McCrindle, 2018]. Generational theory and

---

[2] RUS Исследование SberCIB: поколение Z уже задаёт новые модели потребления, 2021

[3] Так же, 2021

generational analysis is a new field in sociology. Knowing the generational attributes is important for different stakeholders, for example, for business companies, in order to know their target audience needs. Besides, the HR, leadership, and administration representatives must be aware of the members who comprise their team, as effective intergenerational cohesion enables leaders to understand, empower and lead people. There are more generations mixing in the workplace, in communities and families than ever before, that is why understanding their differences and nuances can be considered as a key to creating cohesive communities. Same is applied to the sphere of higher education.

Analyzing the sources devoted to the study of generational theory and the description of the characteristic psychological and behavioral patterns of each cohort, a comparison was compiled that clearly shows the attitudes with which people who were born in a certain period of time live [Agati, 2012]. Based on the obtained characteristics, materials describing the learning style characteristic of a particular generation were also studied [McCrindle, 2018].

Therefore, currently there are distinguished five generations:

1. baby boomers (1946);
2. generation X (1965-1980);
3. generation Y or the Millenials (1981-1996);
4. generation Z (1997-2010);
5. generation Alpha (2010-2025).

Baby boomers are usually described as competitive as a main characteristic concerning psychological traits. Financial stability and career are crucial factors for well-being, as by the time these generation representatives reached the working age , they faced a high competition on a job market due to the population rise *('baby boom')*. Can be described as 'determined workers'. Visibility as a main motivational factor of their work (e.g. they feel more comfortable working in the office rather than online). They prefer face-to-face communications and group meetings, therefore have strong interpersonal skills. Their *learning style* includes such forms and preferences, as verbal instructions? traditional lectures, clear guidelines,

learning through engagement in open discussions, content which related to their personal (work) experience.

Generation X are 'pessimistic, individualist, skeptical and runimpressed with authority' [Teaching Multiple Generations, 2022]. They tend to have a strong work-life balance in opposition to their parents, who devoted most of their time to work. Result-oriented. Entrepreneurial thinkers. Their comfortable learning style environment involves direct style of communication (phone calls particularly), clear instructions, and individual task completion.

The Millennials are called to have an extreme pressure to be successful [Teaching Multiple Generations, 2022]. Tend to flexibility in their workplace. 'Peter Pan Generation' - tend to demonstrate a manifestation of infantilism; claimed to be a generation which needs more time 'to grow up'. In comparison with their parents, they tend to be optimistic. They seek for inspiration and motivation. They support the lifelong learning concept. Expect an open-learning environment and immediate feedback (social media influence), style prevails over substance.

The generation Z representatives are active users of social media - the urge of updating the posts of their life, to share thoughts and opinions with the community, the desire 'to be heard'. Developed ability to multitask in conditions when it is necessary to analyze and filter large amounts of information. Prefer small amounts of information, prefer audiovisual information. As a feature, they have a clip thinking. 'Here and now' as a life motto, which makes them set short term goals and plans. [Wilson, 2008] Therefore, as students, they can be described as self-directed learners [Swanzen, 2018]. They are active, and support 'learning by doing' ideas and forms of knowledge acquisition. Expect a stimulating learning environment. The teacher-learner position is transformed for them to collegial style where a student acts as a partner of a learning process rather than passive listener. The content is built on current meaningful events. Collaborative experience - group work as one of the leading class organization modes.

Generation Alpha, the future university students, are instant gratification seekers, overindulged from the materialistic belongings point of view. They are

concerned about the global environmental agenda, as there has been an ongoing debate about climate change since their birth. Addicted to social well-being. Prefer the comfort zone of their home to outdoor activities. They expect interactive technologies as a class activity as they were born in the age of technology rise - the are 'digital natives'. Expect an individualistic approach. Expect strong stimuli in every new environment. Attention span is shorter in comparison with the previous generations - about 8 minutes. Need social-emotional support while learning more than ever. The COVID-19 effect - digital classrooms and online classes are of normality.

Comparing millennials, Z and alpha generations, it can be noticed that differences in their psychological attitudes (although, of course, they exist), but they are minimal, which also affects their learning strategies. The main difference is that all subsequent generations process information faster and have a smaller concentration level. As can be seen from the comparative table, the learning process of the new generation (in particular, the Y, Z and alpha representatives) differs significantly from the techniques used in the training of their parents and representatives of the older generation. For example, it is critically important for these students to be involved in activities and change activity over a certain time period. In addition, social interaction is important to them. The game-based learning should suit students of these generations, since it meets their needs in terms of time (setting and achieving short goals), constant social interaction (the game is a group format of work), as well as regular change of activities (the game may include a variety of plots and tasks).

The identified peculiarities in learning styles help in understanding of the supposed curriculum design for the chosen target audience. In case of the game design, described further, such features, as constant change of activities, group work tasks, digital support (videos and presentations) were necessary elements. Taking as an assumption the fact that these are common learning preferences of current students, in instruction design of the project we address to certain learning theories, which answer to these challenges and demands.

1.2 LEARNING THEORIES REVIEW

Having determined which learning characterize new generations, we can assume which learning theories can suit as a base for the design of courses satisfying the needs of modern students. Thus, assuming that the majority of students possess the qualities and learning habits described above, we can suppose that these students tend to take an active role during the learning process in the class, need a constant change of activities, and prefer group work. Based on these key positions, two main theories of learning can be distinguished - constructivism and experiential learning theory.

Constructivism is a learning theory, which states that the most effective way of knowledge and skills acquisition is gained through the reflection and active construction in the mind, i.e. a learner, through the experience, creates their own meaning [Educational Learning Theories, 2015]. Constructivism is based on the ideas described in Jean Piaget's and Lev Vygotsky's cognitive theories, and John Dewey's perspective, which is a mix of ideas described by the above-mentioned theorists.

Jean Piaget is known as a pioneer in constructivism theory ideas explanation. Piaget is counted among the supporters of radical constructivism, because he believed that the individual is the center of the creation and application or acquisition of knowledge [Educational Learning Theories, 2015]. Piaget's theories develop around the idea that children are not inferior to adults in cognitive terms. Developing a theory about the four cognitive stages *(sensorimotor, preoperational, concrete operational, formal operational),* Piaget proves that children develop differently [Ginsburg, 1988]. Studying the processes of cognitive development of children, Piaget defined the processes of accommodation (rethinking his mental image of the outside world in accordance with new experience) and assimilation (the process by which a person or people acquire social and psychological characteristics of a group) [Ginsburg, 1988]. These processes describe how learning is happening, rather than what influences the learning process.

The works of Lev Vygotsky are dedicated to the social aspect of knowledge acquisition [Educational Learning Theories, 2015]. Vygotsky's main idea is that a learner takes it best from the learning process when one interacts with others (immediate environment), as through the process of working with others, one creates an environment of shared meanings [Davydov, 1995]. For Vygotsky, culture plays a crucial role, because being immersed in the new environment, a person can adapt subjective interpretations and become accepted by the society. Thus, Vygotsky believed that infants, born with basic abilities for cognitive development, enhance them with a help of interactions with others, and grow those abilities into more sophisticated mental processes. Following Piaget's idea of cognitive development, Vygotsky's elaborate his own social development theory. From his point of view, learners can achieve more from the cognitive skills perspective, with a help of an instructor *('more knowledgeable other'),* who is responsible for a learner's guidance in the Zone of Proximal Development - an area of skills and knowledge between what learner can already do and a new concept which is unknown to him or her, and cannot be improved or mastered without the help [Davydov, 1995].

As mentioned earlier, Dewey's approach is similar to what was described by Piaget and Vygotsky. For example, Dewey also did not believe in the effect of memorization and repetitive lecturing. In his works he proclaims that learners, engaged into real-life activities, demonstrate higher levels of knowledge through creativity and collaboration [Passow, 1982].

Thus, we can distinguish four main principles inherent in the theory of constructivism [Educational Learning Theories, 2015]:

1. real learning is prioritized in the relevant context;
2. process over passive knowledge receiving;
3. learning is included into the context of social experience;
4. learning is occurred to construct experience.

The training, built according to the format of the game, aims to get the student experience - learning through action. Therefore, when designing learning through play, one should take into account the ideas of Allen Kolb and his learning theory

theory *experiential learning.* Allen Kolb based his ideas on the works of John Dewey and the idea that learning process inextricably linked with experience, Kurt Lewin and idea of active learning involvement importance, Jean Piaget and the influence of environment on person's intelligence, as well as later Jack Merzov, Paolo Freire and other theorists who are trying to answer the question of how people process experience [Educational Learning Theories, 2015]. Under experiential learning, Kolb suspects the idea that knowledge is formed in a person 'knowledge arises as a result of giving meaning as a result of direct experience' [Fazzio, Zanna, p. 170]. Schematically, the Kolb's theory can be represented in the form of the following elements, combined with each other:
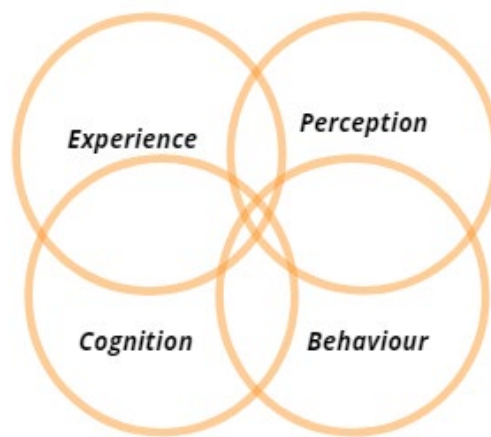

Fig. 1 Elements of a holistic view of the Kolb's theory

The Experiential Learning Theory represents the adult's learning model. It proposes to 'explain the differences and complexities between adult learning within a single framework' [Educational Learning Theories, p. 57]. The theory focuses on experience as a learning process driving force, and knowledge, which is introduced through the reflection on a person's experience [Kolb, 2001]. In theory , there are two types of experience acquisition:

- apprehension (concrete experience);
- comprehension (abstract conceptualization).

Also, there are two types of transformation of experience into 'acquired knowledge'[Educational Learning Theories, p. 57]:

- intension (reflective observation);

- extension (active experimentation).

Thus considered in the same learning context, these four presented modes form a four-stage circle of learning, representing the students' trajectory of learning through experience. The training where the student has gone through all four stages can be effective [Stice, 1987].
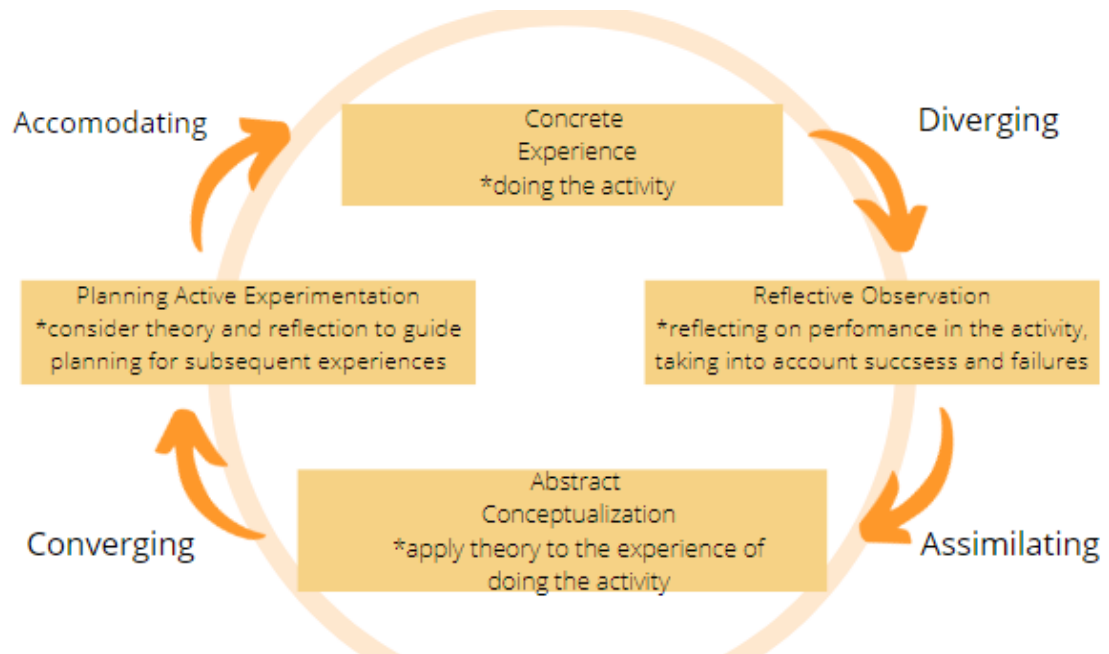

Fig 2. Stages of Learning Cycle

Kolb's theory is reflected in the application of educational courses, such as, field courses, mentor-based internships, where getting real practical experience, practice-oriented learning, is the purpose of the training and the aim of learning [Educational Learning Theories, 2015].

In accordance with the learning cycle, there are identified four main types of students [Birknerová, 2010]. The first type is represented by 'activists' - students, who gain information primarily from a direct empirical experience. These students actively participate in new situations and are prone to excitement. They can be described as sociable and looking for social interactions and new contacts.

Then, there are students, who observe, and based on their observations they form the view and opinion about the external things and the structure of the world

(the 'reflectors'). Unlike activists, these students observe things from a distance and from different perspectives. Their advantage is the ability to use various ways to collect data and think through them before making conclusions. After the data collection is completed, they analyze the given information and reconsider the possible consequences.

The third type of students is called 'theorists'. These learners create mental constructs for themselves. They use analytical thinking, tend to categorize and compare. Theorists examine problems step by step in a logical way.

The last out of four categories is 'pragmatists' - experimentators. These students like taking risks, verifying and evaluating things on the basis of experimentation and practical realization. They like trying new ideas, formats, techniques in confrontation with the real practice. These learners are problem solvers - they like challenging tasks.

To apply experiential learning theory in action, in particular to create business games in the educational space, this description of the students' category will be needed to design the script and roles in such a way that each student can reflect on the experience through the prism of his or her own characteristics.

We can also observe Experiential Learning Theory application in college in cooperative education, service learning, role play scenario, simulation and gaming, e-learning. In order to visually examine the effectiveness and context of the use of the theory, we propose to consider each mentioned method separately.

First, Cooperative Education, as one of the most obvious theory's integration into curriculum for academic purposes. Cooperative Education is an educational strategy, which aims to mix classroom studies and work-based learning, which are necessary for student's career or academic goals. This type of learning combines theory and practice, which students get from being on the territory of the organization under an agreement with an educational institution [Haddara, Skanes, 2007]. Some educational programs, such as, for example, arts, media, business, engineering, in the curriculum make it a prerequisite to pass cooperative training in order to obtain a course credit. The National Commission for Cooperative Education

strives for the high-quality work-integrated programmes and an increase in such courses in education [Haddara, Skanes, 2007].

Internships can be considered a form of Cooperative Education, as they have preliminary same organizational structure of the educational experience and goals - students are getting familiar with the working environment by being temporarily placed as a worker in an organization, getting work tasks and thus modeling the work environment will still be formally in the position of a student. Thus, by modeling the first work experience, students have the opportunity to experiment how well this career path really suits them, reflect on their mistakes that were made during this 'trial period' and make further decisions regarding the future professional trajectory and setting academic goals to achieve the plan [Educational Learning Theories, 2015].

Service-learning *(community engagement)* is an educational strategy where learning objectives are combined with community real-life which meet the society needs [Fazio, 1981]. The learning experience is enriched through instructions and reflection. Service learning teaches civic responsibility, and sets as its goal to strengthen the community, emphasizing meeting the community needs [Felten, Clayton, 2011]. Therefore, service learning unites both content acquisition and students' development [Olusegun, 2015].

While studying at the university is mainly theoretical in nature, the practical skills necessary for conducting some research and field-based campus work are acquired through field courses embedded in the curriculum. Such type of academic activities are designed for field-related majors, such as Ecology, Oil and Gas production, Geology. The procedure usually have further structure: students are given a goal that they must accomplish during this kind of practical work, but they are not told how detailed, for example, the description of the observed phenomenon or the work performed should be. Once the projects' objectives are discussed and setted, there are determined methods for collecting data. Working either with other groupmates, or with the instructor, students determine the most appropriate sampling design. After that, students are collecting data, and thus through the concrete

experience (experience with it) learn about the techniques []. By performing such a procedure, students develop the ability to reflect and generalize, because in the similar situation they will be able to reconstruct the actions or apply and transform the acquired skills in another type of work with a similar task.

One of the methods of university education on the basis of experience is the use of games. Simulations and games also serve as vivid examples of experiential learning usage. A simulation game is a technique securing an artificially created environment that copies chosen features of real situations, which enables the participants observe the results of their decisions and react to them [Lee, 2011]. During the game, students also, by analogy with the cycle, have to go through several stages - participation by the user, decision making, period of analysis [Kolb, 2001]. Investigating the effect of game learning on students' academic success, it was found that reflective observation and abstract conceptualization are a necessary condition [Gamification in Education: A Systematic Mapping Study, 2015]. Therefore, it is possible to regard business games as a content-determined group of simulation games. These games simulate a hypothetical learning, business, economic, language, managerial and other types of environment, activating social communication of the real participants in quasi real business conditions.

E-learning is another application of the theory in the class. Investigating the effect of game learning on students' academic success, it was found that reflective observation and abstract conceptualization are a necessary condition.

Thus, we can find different applications of experiential learning theory in higher education, but the most obvious example is the imitation of the environment (in particular, professional) by means of simulation or business games. In the second chapter, using the example created on the basis of the Yugra State University, a specific case of using a business game as a means of imitating the language environment in English and a new format for conducting project activities is considered.

CONCLUSIONS CHAPTER 1

Games, as a form of teaching and learning, have been used since ancient times, as their effectiveness from the motivation point of view was always obvious.

Therefore, thanks to the aspect of motivation, the introduction of game elements is becoming a popular topic in education. The request for gamification of the educational process can be explained by the requirements of new generations of students, who are characterized by clip thinking, multitasking, active socialization, a tendency to teamwork, active use of technology in everyday life, in connection with which characteristic requests for the educational process are formed. The business sphere uses gamification most actively for training purposes, since one of the important qualities that managers expect from their employees is adaptability and the ability to make decisions in unforeseen situations.

Another advantage of gamification is evaluation. Using the example of Kaspersky, it was shown that the assessment of competencies and further planning of employee training was much more productively organized precisely when using gamified assessment tool (GAT).

There are two concepts of game approach - gamification and game-based learning. In gamification, separate, short-term game elements are used to achieve one specific goal - for example, checking homework. In game-based learning approach the whole course is built on a certain game-plot, the participants choose role plays, and it takes longer time to use.

The effectiveness of learning through experience was discussed by such educators as Kolb, Piaget, Vygotsky and Dewey. Experiential learning and constructivism are the main learning theories in designing different forms of practice-oriented learning. In the higher education landscape, experiential learning is actively used to stimulate the workspace so that students are ready to undergo an internship at the university or use the simulation environment as an alternative variant of internships if it is impossible to organize them.

CHAPTER 2. PROJECT DESIGN AND IMPLEMENTATION
2.1 PROBLEM STATEMENT

Examining the curricula of different universities in Russia and the world, one can note the increasing popularity of project activities as a leading form of student education every year [Servant-Miklos, 2019]. The Ministry of Education and Science of the Russian Federation actively supports this format, supporting such programs as, for example, 'startup as a diploma', which is aimed at involving students in the development of technological entrepreneurship and supporting businesses that are at an early stage [Start up as diploma, 2020][4]. The program involves the introduction of the practice of defending graduation papers in the format of a business project in more than 40 universities in the country. The Far Eastern Federal University became an experimental platform for the implementation of the program in 2017 [FEFU and Kyoto University create world-class spin-orbitronics laboratory, 2021]. According to the Minister of Higher Education and Science Valery Falkov, the project activity and the defense of graduation papers in the startup format meets the requirements of the expert community and employers, since it brings the student as close as possible to practice-oriented activities, and also gives more 'space' for students' self-realization [Start up as diploma, 2020]. [5]

Yugra State University, being the youngest university in the country (established in 2001), does not lag behind the trends dictated by the modern world and the state agenda, therefore, starting from the first year, students take a mandatory course 'fundamentals of project activity'. Schematically , the entire path of project activity can be displayed as follows:
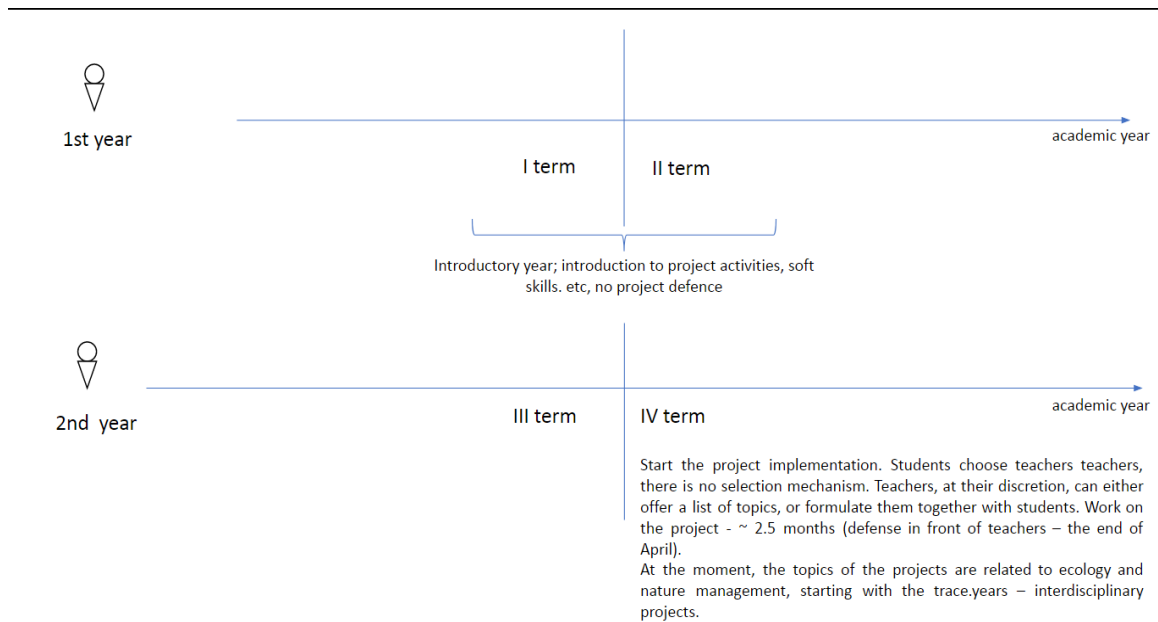
---

[4] RUS Стартап как диплом, 2020
[5] RUS Так же, 2020

1st year

academic year

I term | II term

Introductory year; introduction to project activities, soft
skills. etc, no project defence

2nd year

academic year

III term | IV term

Start the project implementation. Students choose teachers teachers,
there is no selection mechanism. Teachers, at their discretion, can either
offer a list of topics, or formulate them together with students. Work on
the project - ~ 2.5 months (defense in front of teachers – the end of
April).
At the moment, the topics of the projects are related to ecology and
nature management, starting with the trace.years – interdisciplinary
projects.

Fig.3 The trajectory of the student's project activity during the first two years of study

3rd year

academic year

V term | VI term
The scheme of the IV
semester of the 2nd
year is repeated

4th year

academic year

VII term | VIII term

Work on final thesis (VKR) +
defence, topics are not related to
previously completed projects

The function of projects is design
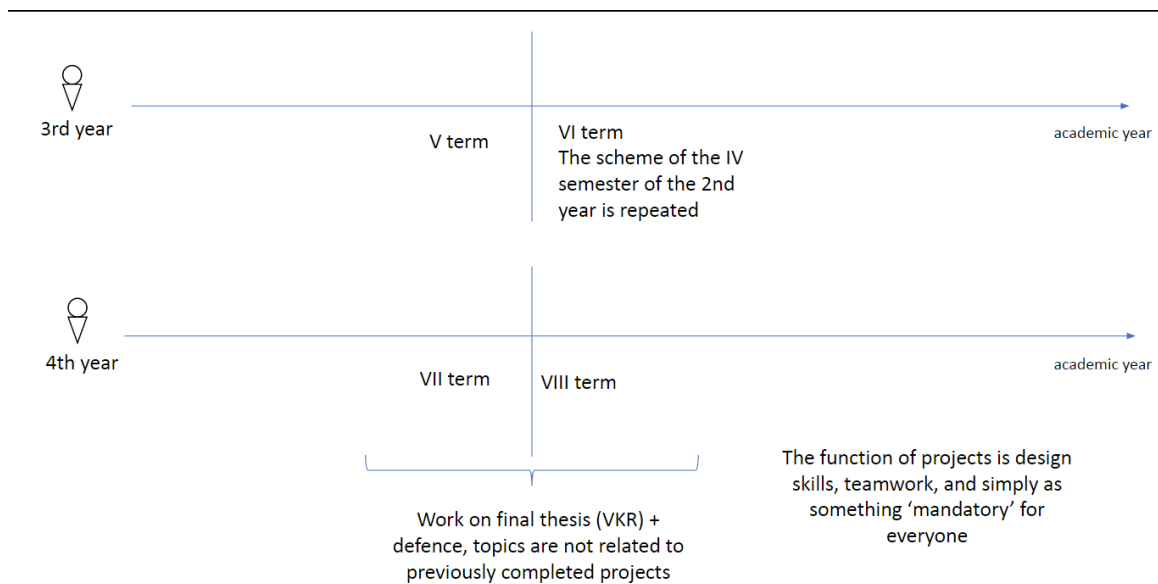skills, teamwork, and simply as
something 'mandatory' for
everyone

Fig.4 The trajectory of the student's project activity during the first two years of study

Since project activity is the leading format of education for all areas of study, it is critically important that this format brings effective educational results. Since project activity is the leading format of education for all areas of study, it is critically important that this format brings effective educational results and real-practical ones in the form of case studies of successful projects. In this regard, a survey was conducted among the administrative leaders of the Ugra Green School Center of

Excellence. UGS is a strategic project of the university, whose goal is to develop the field of Ecology and Environment to a competitive level in Russia, as well as to gain international recognition, that is why the center sets high performance indicators, including focusing on increasing the number of graduation papers in the project format.

The survey was conducted in the format of an interview with the head of the Center of Excellence, with the head of the international department of the center, as well as with the head of the project office. The survey was conducted in the format of an interview with the head of the Center of Excellence, with the head of the international department of the center, as well as with the head of the project office, to identify problems existing in the implementation of project activities at the moment. Each of the three representatives was asked the following questions:

1. Do you find the results of students' project activities useful for social or scientific purposes?
2. In your opinion, how well developed are the students' project activity skills?
3. If you find the results of project activities ineffective, what reasons can you identify?

Analyzing the answers received, it was determined that all of the three respondents do not find the result of the project work effective, highlighting the following reasons: an improperly structured course of project activities according to the curriculum, in which insufficient time is allocated for the implementation of projects; the second reason was especially clearly expressed by the project office handyman, who works with student projects - lack of motivation and students' misunderstanding of the significance of project work. Therefore, according to his observations, students start a project with an average level of interest and motivation, which, however, only increases over time. Students do not strive to do high-quality work, the procedure of the assessment form is no different from standard classes and presentations to teachers as a form of reporting. In this regard, the problem of a low level of interest and motivation of students in projects and their development has been established. As described in the theoretical chapter, the main advantage of

gamification is to increase motivation to learn. In this regard, it is suggested that project activities built in the game-based learning format will increase interest in project activities and improve the quality of the work being created.

2.2 PROJECT DESIGN

In this regard, the design of the project for the implementation of the business game in English was developed. English was not chosen by chance, because, as noted above, the center strives to enter the international arena, and the development of communication skills in English among students and teachers of the center is one of the tasks.

Participants were selected by voluntary consent by filling out an application form. The recruitment announcement was posted on the Vkontakte social network on the university's page. In total, 20 applications were received, of which 12 people were selected by us. The application included the following questions:

- Contact details (full name, phone number and link to the social network, direction of study and course);
- Assess the level of your motivation to participate in the game;
- Describe your expectations of participating in the game;
- The reason for the interest in participating in the game.

We felt that we needed an even number of participants to carry out the project, so that we could provide different forms of work (for example, divide the participants into pairs). Applications were submitted from participants of different branches, the selected twelve people are studying Economics, Chemistry, Electric power, Law, Philology. The format of the event aroused interest among people, because 50% of the responses said that students had not heard of such a training format before. The main reason for the interest in participating in the project, the participants highlighted the opportunity to improve communication skills in English, because they assume that such a format is more practical, unlike traditional classes.

The design of the game is presented as follows. The game consists of 6 educational blocks, each of which corresponds to one of the topics:

1. Self-presentation. Learning objectives: a student describes his o her personal qualities and skills; a student can introduce him-or herself; a student is able to conduct and pass interviews.

    Description of the educational block: students are introduced with a game legend, which is a common scenario of the whole game, connecting the blocks with each other. The participants are explained the rules, which are operated during the game. Students choose the role which they are going to play till the end of the game. The role which the students are to play is defined after the test completion. The test represents a modified version of the MBTI personality test - Myers-Briggs Type Indicator. The MBTI is an instrument, which purpose is to determine the preferences of the respondent (*how the person sees the world and makes decisions*) in four opposite pairs - 'dichotomies'. Preferences patterns are consisted of two mutually exclusive groups , referred to with a letter of abbreviation: Extraversion/Introversion (E/I), Sensing/Intuition (S/N), Thinking/Feeling (T/F), Judging/Perceiving (J/P). According to these identified patterns, the person is categorized into one out of sixteen personality types. Each type is a combination of the four dichotomies [Myers-Briggs Type Indicator, 2020].

    For each type of personality, we have assigned a certain profession, which is on the list of our game: ENTP - Mayor, Lawyer, Engineer; ENTJ - Mayor, Lawyer, Doctor; ENFP - Artist, Doctor, Mayor; ENFJ - Lawyer, Mayor, Engineer; ESTP - Lawyer, Engineer, Artist; ESTJ - Mayor, Lawyer, Artist; ESFP - Artist,Lawyer, Doctor; ESFJ - Manager, Artist, Lawyer; INTP - Engineer, Doctor, Lawyer; INTJ - Engineer, Mayor, Doctor; INFP - Artist, Manager, Doctor; INFJ - Engineer, Doctor, Mayor; ISTJ - Engineer, Lawyer, Mayor; ISFP - Artist, Manager, Doctor; ISFJ - Doctor, Lawyer, Artist.

    The participants are offered to do the questionnaire, identify their role and get

a a pre-prepared resume CV (Appendix 1) from a 'visa center' - modeling the real-

life situation, the participants also got their passports (Appendix 2), where each person got information of their role-person - new name, university, field of study, job, skills (soft and hard), elective subjects which the person took at university as an alternative to their hobby description.After each of the participants got acquainted with the information indicated in the summary, the participants had to split into teams (= two cities). The mayors had to conduct interviews with the participants in order to make a selection. In order to work out the questions, the two worlds worked for 25 minutes with the so-called *'business angel'* - students from the Faculty of Linguistics, who helped them build questions and practice the interview format. At this time, the rest of the participants with other linguistics students in mini groups of 3 people each learned to answer questions and talk about themselves. The discussion is given 35 minutes. During the discussion, a 'business angel' is present at the table - a linguistics student who helps with the formulation of thoughts in English, suggests the translation of words and sentences from Russian into English and supports the dynamics group (Appendix 3).

SPEED DATING

8 minutes!

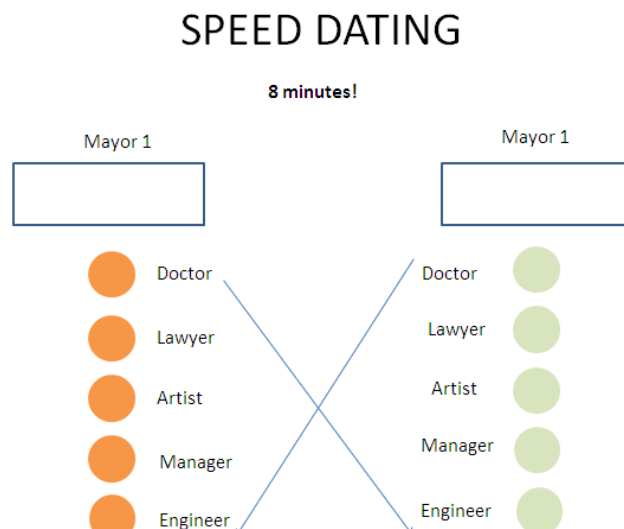| Mayor 1		Mayor 1

Doctor

Lawyer

Artist

Manager

Engineer

Fig. 5 The scheme for conducting an interview

After all the interviews have been conducted, the mayors announce the lists of their candidates, thus forming teams. The formed teams are located on different sides. The next task is to form the concept of your city, its main focus and the name of the city, reflecting the concept. The discussion is given 35 minutes. During the discussion, a 'business angel' is present at the table - a linguistics student who helps

with the formulation of thoughts in English, suggests the translation of words and sentences from Russian into English and supports the group's dynamics.

2. Education, health and shopping. Learning objectives: a student can express his or her opinion, knows the conjunctions words and the their cases of use, can describe his or her educational path, can tell information about his or her educational background, provide arguments, and also knows how to come to a common decision in working in a team; list and asl for the the items sold in different stores in English.

Participants are invited to place their first buildings on the map. The first building that participants can purchase is the university. The university has three levels. The higher the level, the higher the cost of the university. The university level was determined by the number of directions that participants could open at the university - one, two and maximum - three. The directions that will be taught and studied at the university are determined by the participants themselves. An important condition is that they must be connected with the initially defined concept of city development. The participants discuss for 25 minutes which courses need to be taught at the university in order to develop their city, choose the number of directions and then present their ideas to the investor. In the education block, the mayor is responsible for the presentation to the investor. Within one minute, the mayor presents his ideas to the investor (the investor in this case is a linguistics student), after which the investor can ask additional questions to the team, and then sell the building.

After the participants have defended the mini-presentation for the purchase of the university, they move on to the healthcare unit. To begin with, they are invited to watch a video compiled by our team on their own, which tells us in what ways we can preserve our health. During the audition, participants must fill out a card.
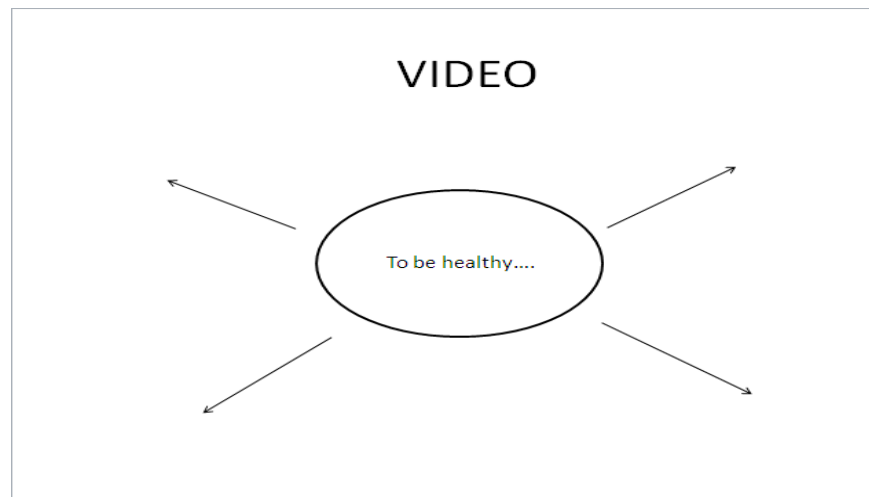
Fig. 6 The example of the card, which participants are to fulfill to complete the ways of health preservation

After the participants have finished with the listening task on the topic of health, they distinguish from the written ways to preserve health in the category. There should be four categories in total: physical health, mental, nutrition, relaxation. Participants must collectively identify two main categories of health preservation in their city. Having decided on two main categories, they prescribe activities, which their citizens will have access to. Depending on these activities, participants must determine which buildings they need. Participants must collectively identify two main categories of health preservation in their city. Having decided on two main categories, they prescribe activities, which their citizens will have access to. Here, the participants continue the procedure of buying buildings from an investor, the main presenter is a person playing the role of a doctor.

After the participants have bought the necessary buildings in the 'healthcare' block, it is proposed to move on to the topic of shopping. The slide shows the types of stores that exist and their translation into English (the list includes stores such as bookstore, toy shop, clothes shop, e-shop / e-goods, market, drugstore, household store, hobby store, grocery). From the entire list, teams need to select four of the very first and most necessary, in their opinion, stores. Having compiled a list, the participants present it to the investor, but their initial capital, issued at the beginning of the game in the amount of 25 smartcoins, has already ended, so they are invited to play a mini-game to earn money. The mini-game is aimed at learning the vocabulary of the goods that are sold in these stores. The task of the participants is

to find cards with the names of goods hidden in the audience and stick them on the stand. The team that finds more cards in the set time gets more money than the team that lost. With the money received, participants buy buildings on the theme of shops. The winning team has the advantage of either buying more stores now or leaving them for the next purchases.

3. Free time. Learning objectives: a student knows about the types of leisure activities, can talk about his or her favorite free time activities, is able to analyze the target audience and their needs.

In this block, participants need to determine their target audience of the city - people of what age live here in the majority, and in accordance with this, determine which types of recreation will be most popular among the population. The teams are shown the types of recreation that we have identified: active, relaxed, intellectual. Together with the participants, we determine which types of activity are characteristic of each type of recreation. Next, the teams are asked to identify common hobbies that their team shares in order to determine which of these they will be able to include in the city's strategy. After they have determined which types of recreation should be reflected in the city, participants are determined with buildings that can be built to meet the needs of residents. An artist conducts a mini-presentation in front of the investor.

4. Engineering and law. Learning objectives: a student knows how to use modal verbs (must / must not, can / can not, should / should not), knows the Future Simple usage (will / will not), knows the levels of the society's development, can propose and discuss ideas about technological development.

Together with the participants, we recall what types of societies development there are (traditional, industrial, post-industrial). Then the teams watch a video where they talk about the peculiarities of each type of society. Students should write out in the table the characteristic features of each society that they will hear in the video.

5. Cultural code. Learning objectives: design their city cultural code (holidays and traditions, art, food).

The participants were presented with a presentation about various national holidays - their brief description and photos. There are fifteen holidays in the list in total. After familiarization, participants are offered a task - to describe the holiday of their own city from the point of view of ideology, the main condition is a combination with the main concept of the city. Students can choose and combine either the holidays indicated before, or come up with their own options completely. The participants are given thirty minutes to complete the task.

After the participants drew up a plan for their holiday, where they had to indicate the idea, season and duration of the holiday, one person from the group will present their achievements for the business angel.

The next stage is the development of national food. Participants are given a choice of categories of products from which they should make a recipe for their dish.

Students should give the name of the dish and describe it in as much detail as possible.

The final stage is the development of the logo (or coat of arms) of the city. Participants are given tables with descriptions of various symbols and their meanings, as well as colors. Participants create an emblem explaining the meaning of the elements present on it.

6. Final presentation. Learning objectives: summarize the ideas and present them in English.

Students are to present their ideas in front of the 'board of inventors' - the expert committee, which consists of a professor from the Linguistic department, a first-year student from MA Experimental Higher Education program and manager for international relations from the YugraMegaSport company. There have been identifies five criteria which they were to follow in order to evaluate the teams' presentations:

- Compliance of the presented buildings with the declared concept;
- Public speaking skill in English;

- Absence of gross grammatical errors;
- Compliance with the structure of the speech and logical narration;
- Compliance with the time frame (no more than two minutes).

Participants were given thirty minutes to prepare their speech together with a 'business angel'. Each participant, according to his profession, should have a story about the block for which he or she was responsible. So, the mayor talked about the general concept of the city, the idea of development, the meaning of the name of the city. The doctor was responsible for the health and food blocks, the manager for the free time block, the lawyer talked about the code of laws that the participants had compiled, the engineer about the technological path of development, and the artist about the cultural code. Each participant was given 2 minutes to perform. After counting the results, the winning team was announced with an afterword from the jury members. It is considered important to mention here that two of the three jury members spoke from the position of people who did not come to English immediately, showing by personal example that the language can be learned from scratch at any age and under any circumstances, thus increasing the motivation of participants to continue studying. It is considered important to mention here that two of the three jury members spoke from the position of people who did not come to English immediately, showing by personal example that the language can be learned from scratch at any age and under any circumstances, thus increasing the motivation of participants to continue studying.

The participants were asked the following questions:

- Has your level of motivation to learn English changed?
- What do you attribute your changes in motivation level to? (both for the better and for the worse)
- In your opinion, is the game format of project activities more effective than the traditional one (i.e. the one that is currently presented at the university)?
- Would you like to repeat participation in a similar format?
- Why do you think the game format of project activities is more effective /less effective?

- What day/ topic of the day do you remember the best? (which topic did you like the most)
- How do you assess the level of organization of the event?
- What comments/suggestions do you have for the organizers?

Analyzing the answers received, the following results were obtained. 100% of the participants answered that their level of motivation to learn a foreign language has become higher compared to the first results of the survey. 100% of the participants would like to repeat their participation in the project. 100% of participants believe that the game format of project activities is a more effective means. 57.1% of the participants rated the level of the organization at the highest score (10 out of 10 suggested), 14.3% - at 9, and 28.6% - at 8. Among the reasons that increased the motivation of participants to learn a foreign language, common patterns are such categories as:

- imitation of immersion in a language environment;
- the opportunity to use the help of business angels;
- variety of topics studied.

When asked why you think the game format is more effective, the participants identified the following common reasons:

- maximum consideration of the interests of each student and the most individual approach in the format of group work;
- rapid assimilation of the material and increased dynamics where everyone should have time;
- the opportunity to really apply the knowledge of people from different fields.

In addition, a separate survey was conducted among linguistics students who participated in the project as business angels - assistants-mentors. The survey for students of linguistics was made due to the fact that it was noted that another indirect effect of the game is also the influence not only on the competitive participants-students, but also on the students-co-organizers. It means that they also became objects of observation during the experiment. Thus, the questionnaire of students consisted of the following questions:

- How do you assess the format of the business game? Do you think that the game format of project activities is more effective than the traditional one (i.e. the one that is currently presented at the university)? If so, what reasons can you identify?;

- Would you like to conduct a second project to create a business game? Could you reveal the answer by answering 'why';

- How do you assess your contribution to the preparation and implementation of the project?;

- Do you feel satisfied with the work you have done? Do you think that student projects should be similar to what you have been doing for 1.5 months?;

- What did you particularly remember during the preparation and implementation of the project?;

- What do you think could have been better organized? What weaknesses of the project organization do you see?;

- And what, on the contrary, was done well?;

- Would you like to be part of the project yourself?;

- Have you acquired new skills during the preparation for the organization and during the project?;

- How do you assess the potential of the project?.

Analyzing the answers received, it can be highlighted that students are particularly satisfied with the work done and believe that this is the format of projects that students should conduct, bearing in mind that they felt the real effect of the work done in view of the positive feedback from participants and direct work with them. In addition, all co-organizers of the students replied that they either acquired new skills for them, or improved existing ones. The most frequent answer was 'organization and management skills', 'teaching and moderation skills' are in second place, and the third most popular answer was 'oral language skills in a foreign language'.

Thus, an experimental project on the construction of project activities based on gamification can be successful, as evidenced by the comparative results of

surveys, as well as observations made during the project. In the future, the techniques used during the design of the project can be used to create a business game as a form of evaluation of a group project of an interdisciplinary team at the university; as a separately-built course in both a foreign language and other disciplines, as well as as a form of conducting an informal curriculum for both students and applicants, in order to attract the most talented of them.

However, it should be separately noted that it was not possible to fully implement what was poorly organized and what can be improved when conducting a repeat game.

As noted earlier, we were looking for twelve people to host the game. A certain role was assigned to everyone in the team in order for each person to speak at the final presentation about a certain area of development in the city - for example, the doctor was responsible for health care, and the artist was responsible for the cult. Therefore, it was assumed that all participants, without exception, would reach the final presentation. However, three of the 12 participants did not want to continue taking part after the second class. A separate survey form was created for such participants, where they were asked to answer only three questions:

- What factor stopped you from further participation?
- Continue the phrase: I would continue to participate in the project if…
- What comments and/or suggestions do you have? What are the weaknesses and strengths of the project, in your opinion?

All three participants identified one common problem - they felt that they could not interact in a group with other participants, because their level of foreign language proficiency was much higher, and they could not enter into communication. This problem could be solved with the help of entrance testing at the level of a foreign language. In addition, it was possible to track the complexity in the distribution of participants into subgroups in general. Thus, under the established conditions, we offered the participants to assemble a team for themselves through interviews. The result was an imbalance, where one group was significantly stronger in terms of language competencies compared to the second. Perhaps, when

designing the game, we needed to pay special attention to this and reduce the element of freedom of choice at this stage, forming uniform groups according to, for example, English testing, but giving more freedom of choice in another block.

Another weakness is timing. Firstly, initially there was not enough time for high-quality preparation and implementation of the project, because of which organizational inaccuracies were made (for example, when preparing buildings for sale). Secondly, we chose an unsuccessful project period - mid-May (11.05.2022-17.05.2022). This time is not the best time to conduct an educational project due to the fact that students are working on their final course projects and they are starting a term examination session. Thirdly, one week with a workload of two hours a day is not enough for a full intensive immersion. Under ideal conditions, it takes about three weeks to see if we can really immerse participants in the language environment based on the communicative method and see the first results in improving speaking skills.

When designing the next course in the format of a business game, it is proposed to conduct initial testing of English language skills in order to form a group where participants would be more comfortable overcoming the ulcerative barrier. Secondly, it is proposed to make more active use of the academic background of each participant and arrange classes in such a way that each participant can use their knowledge gained on the subject in a particular area more actively, activating them when developing their project. Thus we suppose here could be activated a multidisciplinary aspect, which is a key for qualitative project development.

Thirdly, as noted above, more time is needed to conduct the game and evaluate the results of the participants in it. For example, it would be possible to reduce the time of classes and alternate classes day over day (three days a week), but doing it for two weeks.

Fourth, in order to try to assess the level of motivation increase, you should add a survey in the middle of the project, so that there are three control points for verification.

2.3. RECOMMENDATTIONS AND FURTHER IMPLEMENTATION

Based on the analysis of the results of the project and its positive outcomes, there can be made suggestions for the further usage in the Higher Education landscape. First, the game-based concept of the educational activity (e.g. students work on a certain project) can be beneficial from the assessment point of view. When working in small groups, the teacher always faces the difficult task of assessing the contribution and the effectiveness of achieving learning objectives of each student separately. The scenario and design of the game can be designed in such a way that it is possible to determine comparatively on the spot how each participant copes with the same task. The use of business games in assessing the skills of project activity is especially relevant at the present time, when project activity is a key format of training, however, it seems difficult to determine the learning objectives that a student must acquire after completion of the project and moreover to assess to what extent these objectives were learned. For instance, in the case of Yugra State University, the current form of the main form of assessment of the skills acquired in project activities is the final presentation and report, which does not allow us to identify the contribution of each participant.

In our opinion, another advantage of games, in addition to motivation, is the factor of 'real time' - the principle of 'here and now'. Knowledge is acquired in the real for the participant of the process of information support of his game actions, in the dynamics of the development of the plot of the business game. Thus, the game gives you the opportunity to experiment with the event, try different strategies for solving problems and reduce the time of acquiring professional experience. This is especially true in conditions when students do not have the opportunity to complete an internship at an enterprise - for example, a business game can be organized at the university that simulates a professional environment. Moreover, holding business games may allow attracting more stakeholders among the representatives of companies to cooperate with the university for further development of partnership relations and promotion of university services to the market.

In order to make it convenient to track progress in real time, it is proposed to use templates for observations, which lists the main points that should be paid attention to when evaluating the progress and performance of students' actions. These criteria can be, as, for example, in the case of creating our game, related to the learning goals set for each module.

In addition to the professional environment, business games can be used to simulate the language environment, as shown in our example. Controlled by the organizers, the game brings us closer to real conditions where students do not have the opportunity to use their native language in order to make a dialogue. So, the game can teach effective communication.

Another, less obvious, way of introducing and using business games is the design of the format of educational business games in VR technology. The introduction of VR technologies is actively used in education, for example, for training surgeons. VR technologies in education are used for clarity, concentration (distraction from external factors that can be irritants and distract from the learning process), engagement, safety (regardless of complexity, the participant cannot cause serious harm and thus can develop confidence in their actions). Therefore, developing the design of games, you can introduce them into new technologies as a tool for a more complete immersion.

Another way to use the business game can be called career guidance work - work with future applicants and the formation of a base of new students. The game format is an interesting and unusual format for conducting classes. As noted in the theoretical chapter, new generation of students are making new demands on the educational process, making a request for more active formats. Thus, in addition or even instead of holding a traditional 'open day', where the main form of activity is an oral presentation of university. Instead, a game can be held for high school students, where they can get acquainted with the content of the university 'from the inside' - this will also help them understand which specialization is closer to them at the moment, and form their choice of educational program.

As with the example of using GAT at Kaspersky, gamification at the university can be used to conduct trainings for employees. At the moment, professional trainings are presented in the format of computer testing, which absolutely does not exclude the possibility of cheating, and also takes up a lot of about two hours of working time. Thus, by introducing gamification elements into the testing format and further developing skills, it is expected to improve the quality of employees' work and optimize work processes.

Thus, business games have various ways of application in higher education. When developing a game, it is necessary to determine what goals students should achieve by the end of the game; what is the appropriate number of blocks to be completed; what is the time limit; places of interaction - whether it will be only the university site or other spaces will be included; what scenario will be the connecting line between all blocks; what forms of remuneration will be provided.

CONCLUSIONS CHAPTER 2

Project-based learning, gaining popularity as the main training format. The problem identified in the course of observations and interviews conducted on the basis of Yugra State University is related to the motivation on the part of students to implement and conduct their own projects. Another problem of concern to the university administration is the internationalization of the educational process and the learning environment, in particular, more specifically, the insufficient level of English proficiency among both teachers and students.

Combining the two problems, a solution was proposed in the form of a design and further conduct of a business game in English. Consisting of six educational blocks with specific educational goals in each, the game is a week-long intensive course during which twelve students, selected on a voluntary basis, had to present the concept of a 'Perfect City' in English. As a result of the project, the business game project proved itself on the positive side, all participants noted that the format of project activities in the form of a game was more interesting, all participants also noted that they would like to participate again. At the same time, some shortcomings were identified that need to be taken into account when implementing the proposed model in the educational process - for example, not all participants reached the final presentation, since they were assigned to groups with participants with a higher language level; secondly, one week is an insufficient time interval to identify improvements in speaking skills in English language.

On the other hand, the absolutely positive aspects can include such facts as increasing the level of motivation among participants and attracting external jury members to evaluate projects, unlike the standard version of evaluation at the university.

Based on the conducted research, a list of recommendations was compiled for further implementation of the project in the landscape of higher education.

CONCLUSIONS

This work is devoted to the study of the effectiveness of the introduction of the game format of learning in the design of higher education. In the course of our work, our goal was to consider the design of project activities in the format of a game as an alternative and more effective way to conduct project activities, motivate students to participate and improve the quality of project work, as well as improve English language skills at Yugra State University.

In the theoretical part of the study, the elements inherent in each game are presented, examples of the use of business games by different business companies for educational purposes are considered, and the fundamental theories of learning necessary for building the design of a business game are also analyzed. Thus, they are represented by experiential and constructivism theories.

The main advantages of the game-based learning format include the ability to increase motivation and imitation of the environment (professional or linguistic) The main advantages of the game learning format include the ability to increase motivation and imitation of the environment (professional or linguistic), which was confirmed by the results obtained from participants of the educational game in English.

Despite the fact that the pilot launch of the game on the basis of the university proved to be an effective format and collected most of the positive feedback from the participants, there are difficulties that need to be taken into account when developing the following games. For example, these difficulties include the formation of subgroups of students by levels and the time of the game.

Game training at the university can be introduced at different levels and formats, such as, for example, the construction of the entire course, the form of assessment of a group of students, the format of work with applicants, imitation of professional activity (internship) and the inclusion of VR technologies.

LIST OF REFERENCES

1. Agati H. A. The millennial generation: Howe and Strauss disputed. The College of William and Mary. 2012. URL: https://scholarworks.wm.edu/etd/1539618810/ (date of access: 20.05.2022).

2. Agre G., Angelova G., Dichev C., Dicheva D., Gamification in Education: A Systematic Mapping Study / Darina Dicheva, Christo Dichev, Gennady Agre, Galia Angelova. // Journal of Educational Technology & Society. 2015. Vol. 18, № 3. P. 75–88. URL: https://www.jstor.org/stable/10.2307/jeductechsoci.18.3.75 (date of access: 17.05.2022).

3. Alizadeh M. The impact of motivation on English language learning //International Journal of Research in English Education. 2016. V. 1. №. 1. P. 11-15.

4. Almulla, M. The Effectiveness of the Project-Based Learning (PBL) Approach as a Way to Engage Students in Learning // SAGE Open. 2020. V. 10. № 3. P. 15. URL: https://www.researchgate.net/publication/342715218_The_Effectiveness_of_the_Project_Based_Learning_PBL_Approach_as_a_Way_to_Engage_Students_in_Learning (date of access: 20.05.2022).

5. Alsawaier R. S. The effect of gamification on motivation and engagement // The International Journal of Information and Learning Technology. 2017. P. 32. URL: https://www.researchgate.net/publication/321063416_The_Effect_of_Gamification_on_Motivation_and_Engagement

6. Bakar K. A., Tarmizi R. A., Mahyuddin R., Elias H., Luan W.S., Ayub A. F. M. Relationships between university students' achievement motivation, attitude and academic performance in Malaysia //Procedia-Social and Behavioral Sciences. 2010. V. 2. №. 2. P. 4906-4910. URL: https://www.researchgate.net/profile/Kamariah-Abu-Bakar-2/publication/248607100_Relationships_between_university_students'_achi

evement_motivation_attitude_and_academic_performance_in_Malaysia/links/0c96051ef1f939e62b000000/Relationships-between-university-students-achievement-motivation-attitude-and-academic-performance-in-Malaysia.pdf (date of access: 13.05.2022).

7. Barabasch A., Fischer, S. Gamification. A Novel Didactical Approach for 21 Century Learning. // Vocational Education and Training in the Age of Digitization: Challenges and Opportunities. 2020. Chapter 5. URL: https://www.jstor.org/stable/j.ctv18dvv1c.8 (date of access: 17.05.2022).

8. Berger J. L., Karabenick S. A. Motivation and students' use of learning strategies: Evidence of unidirectional effects in mathematics classrooms //Learning and instruction. 2011. V. 21. №. 3. P. 416-428. URL: https://www.researchgate.net/publication/248497711_Motivation_and_students'_use_of_learning_strategies_Evidence_of_unidirectional_effects_in_mathematics_classrooms (date of access: 14.05.2022).

9. Birknerová Z. The use of simulation business games in university education //Bulgarian Journal of Science & Education Policy. 2010. V. 4. №. 2. URL: https://www.researchgate.net/publication/47619676_The_Use_of_Simulation_Business_Games_in_University_Education (date of access: 15.05.2022).

10. Business Games. (Деловые игры). URL: https://www.gamification.co/2013/03/15/ross-smith-redefines-productivity-with-games/ (date of access: 25.05.2022).

11. Buskirk-Cohen, A., Buskirk-Cohen A.A., Duncan T.A., Levicoff M. Using generational theory to rethink teaching in higher education // Taylor & Francis Gloup. URL: https://www.tandfonline.com/doi/abs/10.1080/13562517.2015.1110787 (date of access: 12.05.2022).

12. Carducci B.J., Mason B.A., Nave C.S., Mio J.S., Riggio R.E. Myers-Briggs Type Indicator // Wiley encyclopedia of personality and individual differences. V. 2. P. 5. URL: https://www.researchgate.net/publication/346517794_Myers-Briggs_Type_Indicator (date of access: 21.05.2022).

13. Clayton P. H., Felten P. Service-learning //New directions for teaching and learning. 2011. V. 2011. №. 128. P. 75-84.

14. Cordova D. I., Lepper M. R. Intrinsic motivation and the process of learning: Beneficial effects of contextualization, personalization, and choice //Journal of educational psychology. 1996. V. 88. №. 4. P. 715. URL: https://www.semanticscholar.org/paper/Intrinsic-motivation-and-the-process-of-learning%3A-Cordova-Lepper/23ea5bd8b75696d4add70186a747ce3eedc4ce78 (date of access: 15.05.2022).

15. Corno L., Mandinach E. B. The role of cognitive engagement in classroom learning and motivation //Educational psychologist. 1983. V. 18. №. 2. P. 88-108. URL: https://www.tandfonline.com/doi/abs/10.1080/00461528309529266 (date of access: 23.05.2022).

16. Crocco, F., Offenhollwy K., Hernandez C. A Proof-of-Concept Study of Game-Based Learning in Higher Education. URL: https://www.researchgate.net/publication/305041383_A_Proof-of-Concept_Study_of_Game-Based_Learning_in_Higher_Education (date of access: 13.05.2022)

17. Danka, I. Motivation by gamification: Adapting motivational tools of

massively multiplayer online role-playing games (MMORPGs) for peer-to-peer assessment in connectivist massive open online courses (cMOOCs) // International Review of Education. 2020. V. 66. P. 75–92. URL: https://link.springer.com/article/10.1007/s11159-020-09821-6   (Date   of access: 17.05.2022)

18. David Kolb's Learning Cycle. // Center for Teaching. URL: https://teach.its.uiowa.edu/sites/teach.its.uiowa.edu/files/docs/docs/David_Kolbs_Learning_Cycle_ed.pdf (date of access: 17.05.2022).

19. Davydov V. V. The influence of LS Vygotsky on education theory, research, and practice // Educational researcher. 1995. V. 24. №. 3. P. 12-21.

20. Desmet P., Fokkinga S. Beyond Maslow's pyramid: introducing a typology of thirteen fundamental needs for human-centered design // Multimodal technologies and interaction. 2020. V. 4. №. 3. P. 38.,

21. Dichev, C. Gamifying education: what is known, what is believed and what remains uncertain: a critical review / Christo Dichev, Darina Dicheva. – Text : electronic // International Journal of Educational Technology in Higher Education.   2017.   Vol.   14.   №   9.   URL: http://educationaltechnologyjournal.springeropen.com/articles/10.1186/s41239-017-0042-5 (date of access: 21.05.2022).

22. Educational Learning Theories / Editors: Molly Zhou, David Brown. 2-nd Edition.   URL: https://oer.galileo.usg.edu/cgi/viewcontent.cgi?article=1000&context=education-textbooks (date of access: 17.05.2022)

23. Fazio R. H., Zanna M. P. Direct experience and attitude-behavior consistency //Advances in experimental social psychology. Academic Press, 1981. V. 14. P. 161-202.

24. FEFU and Kyoto University create world-class spin-orbitronics laboratory. FEFU.   URL: https://www.dvfu.ru/en/news/en_fefu-news/fefu_and_kyoto_university_create_world_class_spin_orbitronics_laboratory/ (date of access: 19.05.2022).

25. Filgona, J. Motivation in Learning // Asian Journal of Education and Social Sciences. 2020. V.10. №4. P. 16-37. URL: https://www.researchgate.net/publication/344199983_Motivation_in_Learning (date of access: 16.05.2022)

26. Fischer T. et al. Exploitation or exploration in service business development? Insights from a dynamic capabilities perspective // Journal of Service Management. 2010.

27. Frith J. Turning life into a game: Foursquare, gamification, and personal mobility //Mobile Media & Communication. 2013. V. 1. №. 2. P. 248-262.

28. Gamified Assessment Tool // kaspersky URL: https://www.kaspersky.com/ (date of access: 25.05.2022).

29. Ginsburg H. P., Opper S. Piaget's theory of intellectual development. – Prentice-Hall, Inc, 1988.

30. Goeing A. S. Summus Mathematicus et Omnis Humanitatis Pater: the vitae of Vittorino da Feltre and the spirit of humanism. 2013. // Springer Science & Business Media.V. 33.

31. Gopaladesikan, S., GCo's Picks: How Microsoft's Ross Smith Redefines Productivity with Games. 2019. URL: https://www.gamification.co/2013/03/15/ross-smith-redefines-productivity-with-games/ (date of access: 25.05.2022).

32. Haddara M., Skanes H. A reflection on cooperative education: From experience to experiential learning //International Journal of Work-Integrated Learning. 2007. V. 8. №. 1. P. 67.

33. Han, H-C., Gamified Pedagogy: From Gaming Theory to Creating a Self-Motivated Learning Environment in Studio Art. // Studies in Art Education. 2015. Vol. 56, № 3. P. 257–267. URL: https://www.–jstor.org/stable/45185595 (date of access: 17.05.2022).

34. Hellerstedt, A. Game-based learning - a long history. 2019. URL: https://www.researchgate.net/publication/336460471_Game-based_learning_-_a_long_history (date of access: 28.05.2022).

35. Herz B., Merz W. Experiential learning and the effectiveness of economic simulation games // Simulation & Gaming. 1998. V. 29. №. 2. P. 238-250.

36. Hunicke R., LeBlanc M., Zubek R. MDA: A formal approach to game design and game research // Proceedings of the AAAI Workshop on Challenges in Game AI. 2004. V. 4. №. 1. P. 1722.

37. Kim S. et al. What is gamification in learning and education? //Gamification in learning and education. Springer, Cham, 2018. P. 25-38.

38. Kolb D. A. et al. Experiential learning theory: Previous research and new directions //Perspectives on thinking, learning, and cognitive styles. 2001. V. 1. №. 8. P. 227-247.

39. Kumar, J. M. A Brief History of Games // Interaction Design Foundation. 2019.   URL: https://www.interaction-design.org/literature/article/a-brief-history-of-games (date of access: 17.05.2022).

40. Lee, J. Gamification in Education: What, How, Why Bother? // Acadimic Exchange   Quarterly.   2011.   V.15.   №   2.   P.   1-5.   URL: https://www.researchgate.net/publication/258697764_Gamification_in_Education_What_How_Why_Bother (date of access: 28.05.2022).

41. Loucky J. P. Reassessing the educational works and contributions of Comenius to the development of modern education // Bulletin of Seinan Jo Gakuin University. 2008. V. 12. P. 149-163.

42. McCrindle, M. The ABC of XYZ: Understanding the Global Generations URL:
https://www.researchgate.net/publication/328347222_The_ABC_of_XYZ_Understanding_the_Global_Generations (date of access: 29.05.2022).

43. Menezes, C. C. Potential of Gamification as Assessment Tool. URL: https://www.researchgate.net/publication/301271065_Potential_of_Gamification_as_Assessment_Tool (date of access: 31.05.2022)

44. Mhlongo, S., John Dewey's Principles of Learning. // EdUpStairs. 2021. URL: https://www.edupstairs.org/john-deweys-principles-of-learning/ (date of access17.05.2022).

45. Olusegun, S. Constructivism Learning Theory: A Paradigm for Teaching and Learning // Journal of Research & Method in Education. 2015. Vol. 5, Issue 6. P. 66–70. URL: https://vulms.vu.edu.pk/Courses/EDU201/Downloads/EDU%20201%20(Assignment%202).pdf (date of access: 31.05.2022).

46. Passow A. H. John Dewey's influence on education around the world // Teachers college record. 1982. V. 83. №. 3. P. 401-418.

47. Plass J. L., Homer B. D., Kinzer C. K. Foundations of game-based learning //Educational psychologist. 2015. V. 50. №. 4. P. 258-283.

48. Project-Based Learning to Become the Core of the Updated Educational Model at HSE University. URL: https://www.hse.ru/en/news/edu/326123717.html (date of access: 23.05.2022)

49. Raba, A. Using Games to Promote Students' Motivation towards Learning English. 2014. URL: https://www.researchgate.net/publication/290622115_Using_Games_to_Promote_Students'_Motivation_towards_Learning_English (date of access: 21.05.2022)

50. SberCIB Research: generation Z create new consumption patterns (Исследование SberCIB: поколение Z уже задаёт новые модели потребления): [Official website]. [2022]. URL: https://press.sber.ru/publications/issledovanie-sbercib-pokolenie-z-uzhe-zadaiot-novye-modeli-potrebleniia (date of access: 18.05.2022)

51. Servant-Miklos V. F. C., Celebrating 50 years of problem-based learning: progress, pitfalls and possibilities // Advances in Health Sciences Education. 2019. Vol. 24. P. 849–851. URL: https://link.springer.com/article/10.1007/s10459-019-09947-9 (date of access: 28.05.2022.

52. Spanos, A. Games of History : Games and Gaming as Historical Sources // Apostolos Spanos. 2021. URL:

https://www.taylorfrancis.com/books/mono/10.4324/9780429342479/games -history-apostolos-spanos (date of access: 31.05.2022).

53. Startup as diploma. Ministry of Science and Higher Education of the Russian Federation (Стартап как диплом. Министерство науки и высшего образования Российской Федерации): [Official website]. [2022]. URL: https://minobrnauki.gov.ru/press-center/news/?ELEMENT_ID=25900 (date of access: 18.05.2022).

54. Stice J. E. Using Kolb's Learning Cycle to Improve Student Learning //Engineering education. 1987. V. 77. №. 5. P. 291-96.

55. Sun Y., Gao F. An investigation of the influence of intrinsic motivation on students' intention to use mobile devices in language learning // Educational Technology Research and Development. 2020. V. 68. №. 3. P. 1181-1198.

56. Swanzen R. Facing the generation chasm: the parenting and teaching of generations Y and Z // International Journal of Child, Youth and Family Studies. 2018. V. 9. №. 2. P. 125-150.

57. Teaching Multiple Generations. URL: https://www.montgomerycollege.edu/_documents/offices/elite/teaching-multiple-generations.pdf (date of access: 17.05.2022).

58. Welbers K. et al. Gamification as a tool for engaging student learning: A field experiment with a gamified app // E-Learning and Digital Media. 2019. V. 16. №. 2. P. 92-109.

59. Williams, M. K. John Dewey in the 21st Century // Journal of Inquiry & Action in Education. 2017. V. 9 (1). P. 91–102. URL: https://files.eric.ed.gov/fulltext/EJ1158258.pdf (date of access: 24.05.2022).

60. Wilson, M. How Generational Theory Can Improve Teaching: Strategies for Working with the "Millennials" Gerber // Currents in teaching and Learning. 2008. Vol. 1. № 1. P. 29–44. URL: http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.372.4665&rep=rep1&type=pdf (date of access: 17.05.2022).

LIST OF FIGURES

Appendix 1

The role card represented as an example of a real CV

Curriculum Vitae (CV) - from Latin "course of life". It is a short written summary of a person's career, qualifications, and education.

FULL NAME:

UNIVERSITY: Harvard University, the US

FIELD: Management

SKILLS:

Soft skills: *self-control, conflict resolution, taking responsibility, leadership*

Hard skills: *project-management (I was a head of a project group for two years; we have been developing a mechanism to attract new customers to the company), analytical skills (we have been analyzing the customers' and market's needs), strategic knowledge (developed the company's strategy)*

ELECTIVE SUBJECTS: Chess, Public Speaking, Mathematics

Fig. 7 The example of a CV card given to each participant in the beginning

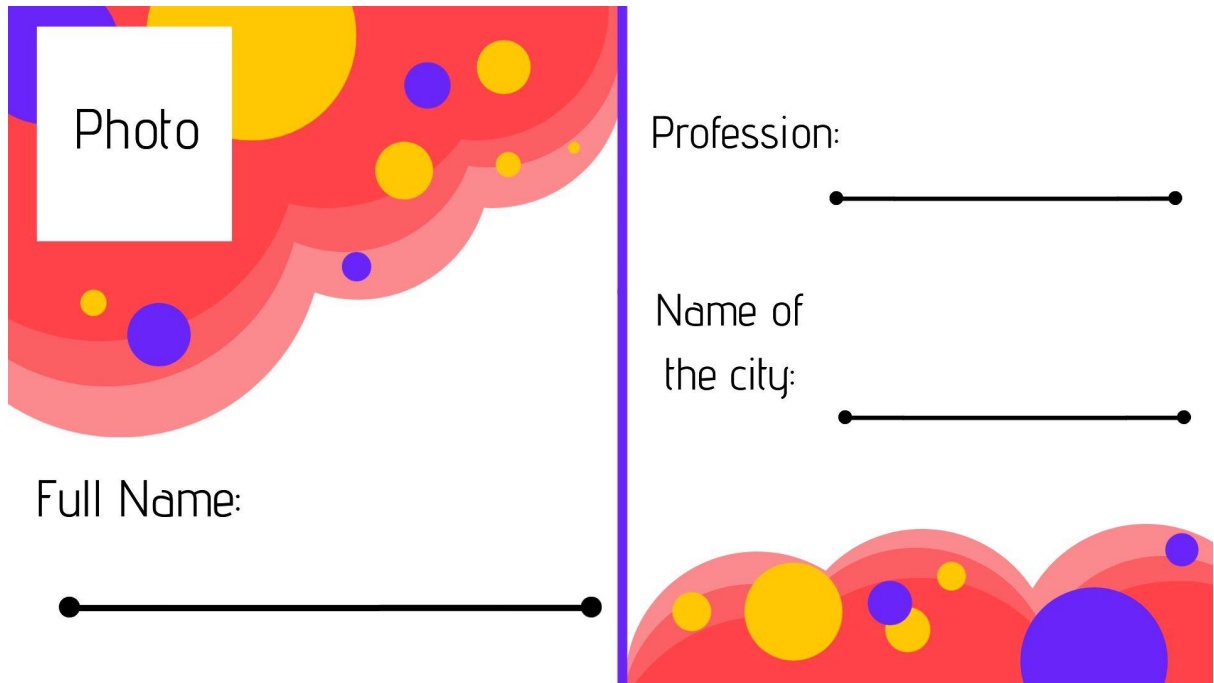The representation of the citizen's passport

Fig. 8 The passport of each citizen with main information

The 'supporting card'

Fig. 9 The example of a card with the expressions useful for each module