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Gamification in HR; applicability and its importance in recruitment and selection

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Abstract

Gamification is a growing trend in the business world, and it is transforming traditional business operations. As our secondary research showed, gamification can be implemented in recruitment and selection. By doing so there is a higher potential to engage and select employees that will fit the job offered and ultimately fit in the organization as well. It can be said that gamification has changed the perspectives of companies which are seeking the top talent and forced them to implement technology and innovative approaches to traditional practices. The purpose of this research was to measure the level of interest of using gamification in the recruitment and selection process among students at Dubrovnik, Croatia. In addition, this research wanted to investigate which professional backgrounds are more or less suitable for using gamification. Results indicate a strong inclination towards such practices; therefore, we deem that gamification shouldn't be a choice, rather a norm for companies in order to select the best candidates.

Key words: Gamification, recruitment and selection, human resources, innovation,

Introduction

Gamification has become one of the growing trends which can be applied in various life domains, including the workplace. It can be said that the gamification concept has become a key tool for transforming business operations. However, a very limited body of knowledge is produced that explores the relationship between human resources management and development of interactive talent acquisition and selection strategies.

One of the main objectives of this research is to determine how human resources recruitment and selection processes can use gamification concept while obtaining employees. Furthermore, the purpose of this research is to develop an understanding of how implementing the game elements in recruitment and selection activities can benefit employers in finding potential employees. According to recent studies and research conducted in this field, we evidently have a lack of technological innovation in human resources management practices (Jooss & Burbach, 2017). That is what makes this topic relevant and it deserves to be further investigated. Businesses are required to constantly adapt and introduce new methods, and HR function is not an exception to such efforts.

Even though businesses are starting to experiment and engage in digitalization of their HR practices, most of them still take the traditional approach of low-tech methods such as simple job posting on the website or use of social media. Such is the case with recruitment and selection as well. Many potential employees are engaged in technological and digital activities, and that is why businesses should keep up to date with current technological developments and introduce even more technological solutions in their HR practices too. By doing so, companies can be perceived as “tech-focused” and “forward-thinking” and create a positive perception among applicants.

Some of the key issues that this paper will try to address can be articulated with the following questions:

- What types of jobs (professional backgrounds) are more or less suitable with gamification approach?
- Are candidates aware of gamification benefits/downsides in recruitment and selection processes?

Author of this paper argues that businesses should embrace the trend of gamification in HR practices and by doing so gain a competitive advantage in recruiting and attracting talent. Gamification or gamification elements have the potential of becoming one of the cornerstones of HR strategy and practice in the near future.

Recruitment, selection, and its importance

Recruitment and selection of potential employees are one of the most crucial human resources functions for organizational success (Breaugh,2013). Innovation in technology had an impact on many business areas, as well as human resources, which lead to the creation of Internet-based recruitment methods (Anderson,2003, Kraichy & Chapman,2014). According to the research, almost 50% of all hired employees come from organizational recruitment websites. In these particular websites for recruitment, potential candidates can find a great amount of information about the organization. In order to make recruitment website more efficient, organizations need to obtain rich communication (interactive) media, which is proven to have a positive influence on candidate's perception of organization (Allen, Van Scotter and Otondo,2004).

Recruitment process consists of gathering the diversified pool of candidates with specific qualifications and potential and communicating the employment opportunities to the applicants

(Raghavi and Gopinathan 2013). In order to select the right candidates, the HR managers are required to have a great amount of knowledge about the industry and the business they are working in. HR managers need to have the ability to promote business as a brand that is recognized among the potential employees to be an attractive employer. The main tasks of the recruitment process are advertising and interviewing potential employees, while selection process is more focused on selecting the person who will be the right fit with the organizational culture based on their abilities and skills. Effective recruitment and selection are important for the organization in order to gain a competitive advantage. Furthermore, recruitment and selection decision has a great impact on the organizations future, therefore the strategic human resources in needed. According to (Herriot,1989) implementing effective recruitment program will attract a larger number of applicants, therefore creating a larger pool of potential employees to select from.

Innovation in HR

It is generally known that innovation means introducing new technology and inventions to a particular area. However, it can be said that innovation goes beyond technology as it requires the cooperation of many people from various fields that contribute to their new ideas. According to David Neeleman “*innovation is trying to figure out a way to do something better than it’s ever been done before.*” IBM global survey that was conducted in 2011 showed that implementing innovative ways into business operations is the main challenge for HR managers. 50% of the HR managers answered they are not interested or using any innovation in their business operations, 71 % said they don’t use any screening tools designed to bring in creative and innovative candidates.

Neelie Verlinden, chief of digital HR Tech uses examples of innovation in HR that have been successfully integrated. The first example in recruitment innovation is “sourcing & programmatic job advertising”. It is a software-based program which is targeting persons with specific skills, knowledge, qualifications, demographics. The software allows recruiters to target these people in a more efficient way by posting the job advertisement on the right site, at the right time, to the right people. In addition, another benefit is that recruiters do not need to put job advertisement manually on each site, whether the software does it for them.

The second example is “preselection technology” where the online platform is used to screen through dozens of CVs as the initial step. Secondly, candidates have the opportunity to experience the job tasks online and get the sense of the job requirements. The data that is being collected from the candidate’s answers can be used to predict which candidate is more or less suitable for the job position.

Gamification defined and explained

According to (Raczkowski, 2013) gamification can be defined as “*a technique that seeks to apply game mechanics to non-game contexts*”. Game mechanics consist of tools such as badges, collection points, competition, challenges and tasks, awards. (Beata Zatwarnicka-Madura).

However, gamification can be perceived as more than just a game. It can be used in maintaining connections with employees by providing innovative and incentivized learning opportunities. Furthermore, gamification can be used to raise brand awareness while shaping organizational identity and recognition. According to Gartner, more than 50% of organization which is engaged in innovation will use gamification. Specifically, in the human resources department,

gamification can be used in various ways such as talent acquisition, training and development, talent management, performance management, and recruitment and selection.

The framework for driving employee engagement is based on game elements. The factors that make gamification work are personalization, ranking and leader boards in combination with elements of challenge, shared purpose and reward. (Ryan *et al.*, 2013)

According to Werbach & Hunter gamification can also be defined as game features that are “*embedded into activities that are not themselves games*”. In its core, the gamification consists of using metaphors, language and digital and computer gaming features (Bunchball,2012).

However, applying game elements to the business world does not necessary means changing work into a game, rather it stimulates the desired worker behavior by using game features such as points, levels, badges etc. (Dale, 2014, Kapp, 2012, Maciuszek and Martens 2012, Zichermann and Cunningham, 2011).

The consulting company Badgeville is a great example of implementation of the points, badges, and levels. Badgeville offers “off- the- shelf” service in which the company can configure any type of the goal that is specific to their industry, such as learning new skills, knowledge sharing, completing expenses reports. (Badgeville,2013)

Furthermore, additional game features such as leaderboard and character sheets can be used to present the top scores in the game, players status, skills and accomplishments (Rauch,2013 & Maciuszek & Martens, 2012). Leaderboards and character sheets, therefore, can provide mechanisms through which individual achievements can be monitored. The experience the player gains through the game is displayed on the character sheet, and the points are presented on

the leaderboard. (Zichermann & Cunningham, 2011). Implementing game features, therefore, can make information on players skills and competence relative to the job more accessible.

Gamification theories and digitalization in HR

Digital transformation at work means applying digital services. Implementing innovative approaches has been proven to enhance the performance of hotels (Grisseemann, Plank, & Brunner-Sperdin,2013). However, in hospitality industry, the speed of technological advancement is slower than in other industries (Bharwani & Butt,2012; Deloitte,2010). Digital transformation in HR has a significant opportunity to influence culture and employees and their engagement. Assuming that the implementation of digitalization in HR is done correctly, the end result and perception of the organization will be exceptional.

However, in HR applying digitalization does not necessary mean transformation of the organization. Implementing digital services in HR practices can foster the relationship between the organization and the employees and affect the corporate culture.

When compared to the traditional approach in management which uses an informational approach to access to performance information, the gamified approach offers immediate, more visible and comparable feedback on performance. In addition to more frequent access to performance information, the gamification itself is the process which seeks to make work more motivating and more rewarding. The persons who will benefit more from using a gamified approach will be the ones with competitive traits and who are self-managed. (M. T. Cardadora, G. B. Northcraft , Jordan Whickerc, 2017)

A popular term in human resources is “e-recruitment” or “internet recruitment” which is one of the fastest growing areas in contemporary recruitment (Armstrong, 2011; Listwan, 2010; Vatamanescu & Constantin, 2015). The benefits of applying principles of the game into the work environment can increase employee motivation, effectiveness, and performance.

When talking about technology in the HR, the important is to mention three web development stages: web 1.0, web 2.0 and web 3.0 (Rudman and Bruwer, 2016). The stage that is important for the HR is the web 2.0 stage because it is connected to electronic human resource management (e-HRM). Web 2.0 stage focuses on using various devices in networks and cloud applications in order to create collaboration among various parties, to boost social activity and encourage on re-using of information.

E-HRM focuses on planning and implementation of the technological elements to facilitate the network between the parties in sharing of HR practices (Strohmeier,2007). Furthermore, d-HRM is the next step in the development of the e-HRM, with focus on applying digital elements and platforms to transform traditional HR practices. Moreover, implementing digital elements is an important step in order to adapt to new digital generation entering the workforce (Spitzer,2014). In the recent years, the role of the HR department has been transformed and the implementation of the IT element has become important element. Due to high competition for talented staff and need to attract knowledgeable workers, implementing IT elements to the HR practices became necessary.

Gayeski (2015) puts emphasis on HR department using digital activities in order to attract new talent. According to Spitzer (2013) there are four steps for digitalization of HR practices:

1) building top management consensus, 2) upgrading HR IT systems, 3) delivering a seamless multichannel presence and 4) using data to drive HR decision-making.

However, not many firms seem to engage in digitalization of HR (Spitzer,2014). In the hospitality industry, the Marriott hotel chain is exception, as they are using gamified strategy to attract and select employees. By developing My Marriott Hotel game, in which the players can manage the virtual hotel, they have created innovative recruitment tool.

Even though gamification is the growing trend in the business industry, almost 80% of the gamification applications is expected to fail to meet their business objectives (Dale,2014).

The important questions such as when, why and how gamification can work in enhancing candidate's effectiveness and performance and what are potential challenges in applying game elements to work are considered to be unclear.

Why use gamification in HR & How can gamification be used in HR

It has been noticed that the gamification approach can be an effective way of recruitment, especially among the Millennial generation. The younger generation engages more in role-playing and competition games, where the points or badges are included. There are numerous ways in which game concepts can be used in HR. For example, gamification can be used in HR to attract, induct, train (learn) and develop, engage and retain employees. According to the research, almost 55% of US employed find the concept of gamification appealing.

There are many industries which already adopted the gamification concept in recruitment, such as hotels, cosmetics, gas and oil, and even army. US Army has created a shooter game called "America's Army" that is used in recruitment purposes. The game is created in a way that

stimulates the various aspects within the army, therefore bringing organizational values closer to the player. Furthermore, America's Army game had a greater impact on recruits than all other forms of Army advertising combined.

The Marriot one of the international hospitality companies and L'Oreal which is one of the largest cosmetic companies have similar simulators where candidates can play the role of the manager or perform and experience different job tasks within various departments. By doing this simulation, companies want to influence the candidate's attitudes toward a particular industry (Lopez,2011).

Another example of the company that uses gamification in recruitment purposes is Maersk, international shipping, oil, and gas company, which uses game simulation to engage players in managing the exploration and drilling of oil.

The company PricewaterhouseCoopers (PwC) developed an online simulation called Multipoly where students can start a 12-day trial and experience working in accounting and consulting company. After completing the tasks, students receive feedback on their performance. The company has recognized the benefit of this approach in the selection process and continued using this practice as a selection tool.

However, gamification is not only about using game element, rather it is a mechanism which helps the organization to achieve its goals and objectives. Implementing new ideas and processes in human resources strategy can add value to the operations. Gamification as such is business-oriented and can help both candidates and organization to achieve its goals. Introducing gaming elements, an organization can encourage people to do more and to do it better.

Method

Participants and data collection

The research subjects of this project were students, who are about to graduate and enter the labor market. The survey was distributed in a paper-based questionnaire to the 76 students in 2 main universities in Dubrovnik (RIT Croatia, University of Dubrovnik). The questionnaires were distributed and collected in person by the author. The targeted sample were both male and females ranging in age 20 to 25 years who belong to different study programs such as Hospitality & Tourism, Marketing, IT, etc.

All participants were given a brief introduction to the research topic and instructions on how to complete the questionnaire. In addition, the questionnaire contained short definition of gamification in order to increase the knowledge of participants about the topic. Participants were asked not to write their names in order for questionnaires to remain anonymous.

The aim of this study was to measure the potential of the use of gamification in the selection process among young people who are entering the labor market. Furthermore, research wanted to investigate the level of interest among different subgroups of participants in the usage of gamification in the selection process.

Research instrument

The questionnaire is a research method instrument that consists of a variety of questions with the purpose of gathering information from respondents. Furthermore, due to statistical analysis, the data is perceived as more reliable. Questionnaire method has the ability to collect a variety of data (attitudes, values, habits, behavior, etc.).

Data collection is practical, as the questionnaires can be distributed to large groups of people. Furthermore, data collected from questionnaires make results more generalizable and objective. The questionnaire is one of the most common means of collecting data and its biggest advantage is the ability to collect responses from a large number of people who are selected to represent a broader population. Another advantage of using the questionnaire as the instrument for the research is that it is relatively easy to generate findings from gathered data (Rowley, 2014). However, the limitations of the questionnaire method are dishonesty of the participants, human bias, differences in understating the questions and it is time-consuming.

With all its limitations, but with an aim to get sufficient and most objective responses, a questionnaire was used to support this research. The questionnaire for this research is based on the questionnaire that was developed and designed by Monika Krasulak (2015) who conducted her research among young adults in Poland on the usage of gamification in the selection process. The adapted questionnaire was translated and used on Croatian students at two Dubrovnik Universities. Therefore, for the purposes of this research, an already established and scientifically tested questionnaire was used.

The Croatian questionnaire consisted of 3 parts. For the first 2 parts, Likert scale was used to measure the level disagreement or agreement for 8 different statements. First, the questionnaire asked participants to express their level of agreement whether games develop 8 of the offered characteristics on a scale from 1 to 5 (1 strongly disagree and 5 strongly agree). Second, the questionnaire asked how wanted those characteristics are at the work market, on the scale from 1 to 5 (1 being not wanted at all to 5 being highly wanted). The last set of questions were demographics (gender, study program, year of study and frequency of playing games).

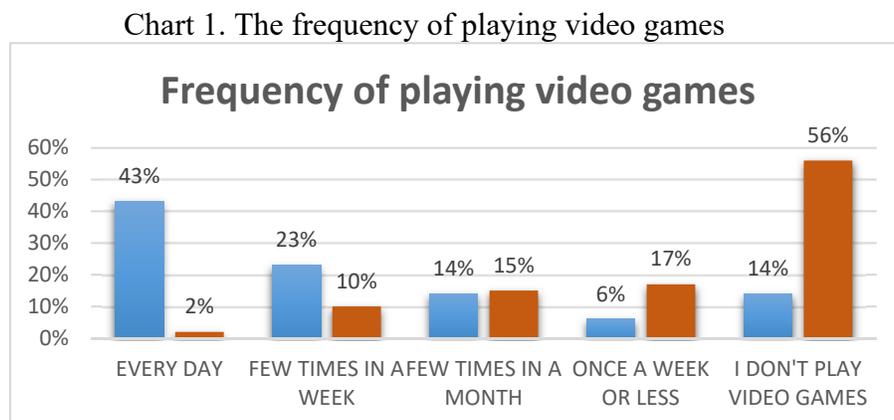
Results

Table 1: Socio-demographic characteristics of respondents

Gender	n	%
Male	35	46%
Female	41	54%
TOTAL	76	100%
Program of study		
Hospitality	42	55%
IT	18	24%
Marketing	6	8%
Economy	10	13%
Playing video games		
Gamers	28	37%
Non-gamers	48	63%

Source: Author (2019)

Analysis of the results reveals there is a significant difference among survey participants between gamers (37%) and non-gamers (63%). Furthermore, the most significant difference has been detected between male and female habits of playing video games. 43% of the male student population play video games every day, while only 2% of female students play video games every day. In addition, 56% of female students and 14% of male students said they don't play video games (Chart 1).



Source: Author (2019)

The findings from the data collected indicate that most of the respondents consider diligence as a trait that playing games least develops (M=3; SD=0,92). However, most of the respondents consider teamwork as a trait that can be developed by playing games (M=4,06; SD=0,99). (Table 2.)

Table 2. Perception of students whether games develop listed attributes/traits

	M	SD
Ambition	3,5	0,9
Diligence	3	0,92
Persistence	3,89	0,94
Task orientation	4,05	0,97
Courage	3,11	1,17
Risk taking	3,51	1,12
Teamwork	4,06	0,99
Self-control	3,27	1,28

Source: Author (2019)

The same traits (characteristics) were then listed again where the respondents would evaluate how wanted these characteristics are in the labor market. They consider courage to be the least wanted trait at the labor market (M=3,76; SD=0,92), while teamwork is considered to be the most wanted trait (M=4,69; SD=0,65) (Table 3.)

Table 3. Perception of students on how wanted listed attributes/traits are at the labor market

	M	SD
Ambition	4,17	0,73
Diligence	4,39	0,74
Persistence	4,31	0,85
Task orientation	4,52	0,73
Courage	3,76	0,92
Risk taking	4,02	0,93
Teamwork	4,69	0,65
Self-control	4,38	0,81

Source: Author (2019)

In order to understand if there is a significant statistical difference between the means of the above two data sets shown: perception of students on whether games develop listed attributes/traits and perception of students on how wanted listed attributes/traits are at the labor market, T-test was used, where arithmetic averages were compared. We developed a null hypothesis as follows:

Null-Hypothesis = there is no significant difference between the developing specific characteristics through playing games and wanted characteristics at the labor market.

P value=0,001

And we concluded that the *Null-Hypothesis* must be rejected since there is enough evidence to conclude that the difference between means is significant (P=0,001).

In terms of the difference between IT and hospitality student's perception of whether games develop listed attributes/traits, IT students consider self-control as a trait that is least developed

by playing games (M=2,66; SD=1,26) and teamwork as the most developed trait (M=4,27; SD=1,12).

As we can see, hospitality students consider courage as a trait that is least developed by playing games (M=3, 08; SD=1, 17) and focus as the most developed trait (M=4, 01; SD=0, 97). (Table 4.)

Table 4. IT and HTM student's perception of whether games develop listed attributes/traits

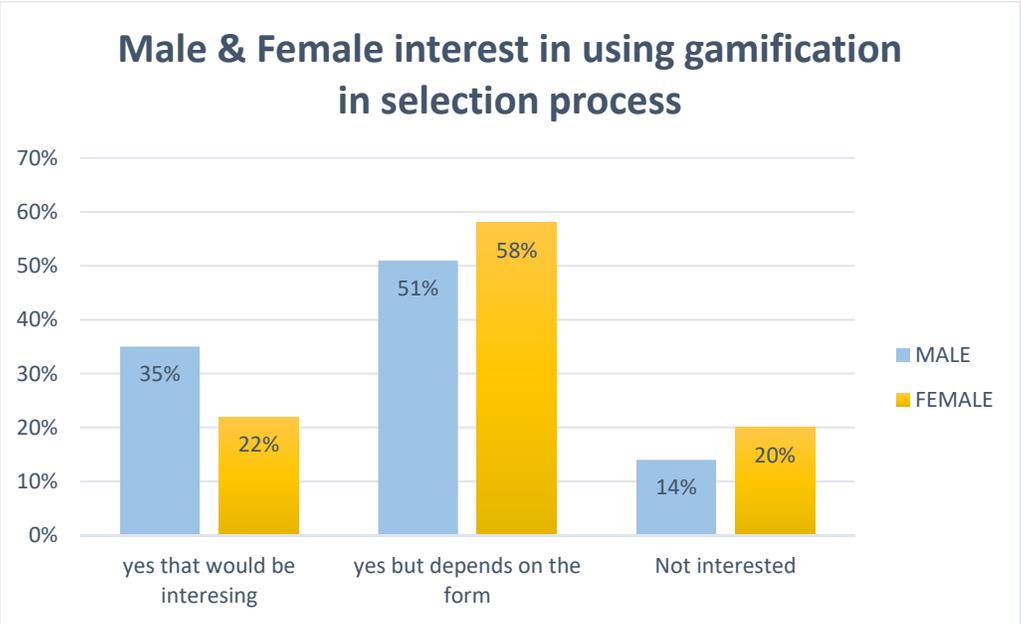
	IT		HTM	
	M	SD	M	SD
Ambition	3,61	0,82	3,39	0,9
Diligence	2,83	0,88	3,09	0,92
Persistence	4	1,17	3,81	0,94
Task orientation	4	1,13	4,01	0,97
Courage	3,11	1,16	3,08	1,17
Risk taking	3,44	1,16	3,49	1,12
Teamwork	4,27	1,12	3,95	0,99
Self-control	2,66	1,26	3,42	1,28

Source: Author (2019)

In terms of interest in using gamification in the selection process, 35% of male answered they would be interested in using gamification when applying for a job, 51% said they would use gamification, but it depends on the form (online, live) and 14% are not interested as they consider games are just for entertainment.

Furthermore, 22% of female respondents answered they would be interested in using gamification when applying for a job, 58% said they would use gamification, but it depends on the form (online, live) and 20% are not interested as they consider games are just for entertainment. (Chart 2

Chart 2. Male & Female interest in using gamification in selection process

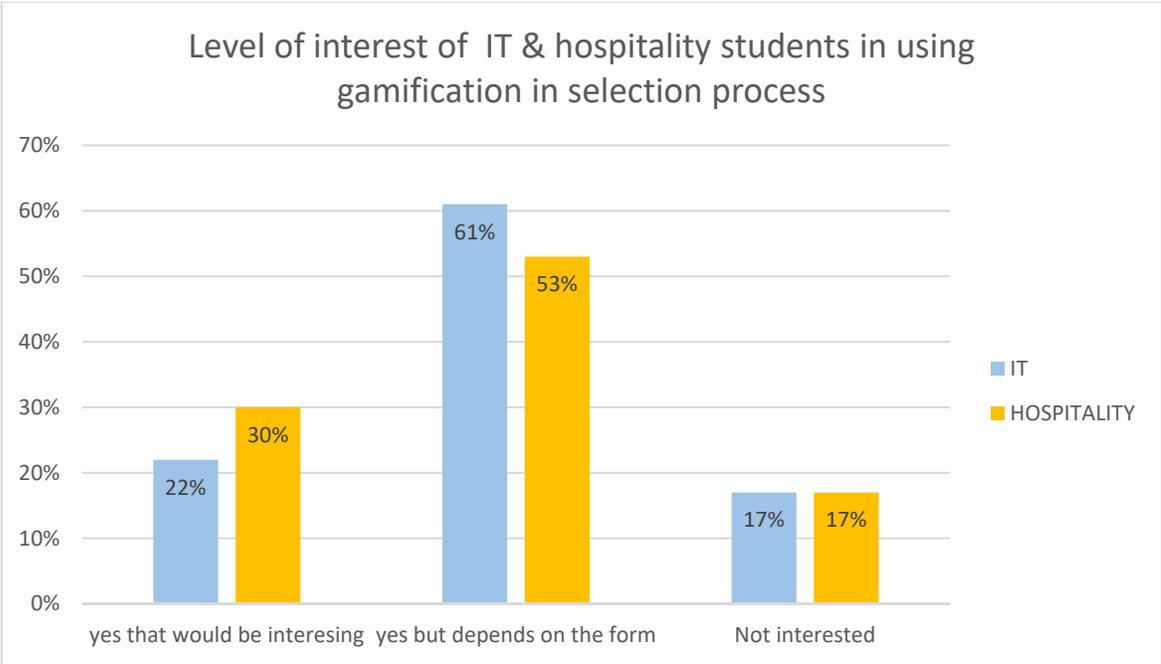


Source: Author (2019)

In addition, 22% of IT students answered they would be interested in using gamification when applying for a job, 61% said they would use gamification, but it depends on the form (online, live) and 17% are not interested as they consider games are just for entertainment.

Moreover, 30% of hospitality students answered they would be interested in using gamification when applying for a job, 53% said they would use gamification, but it depends on the form (online, live) and 17% are not interested as they consider games are just for entertainment. (Chart 3.)

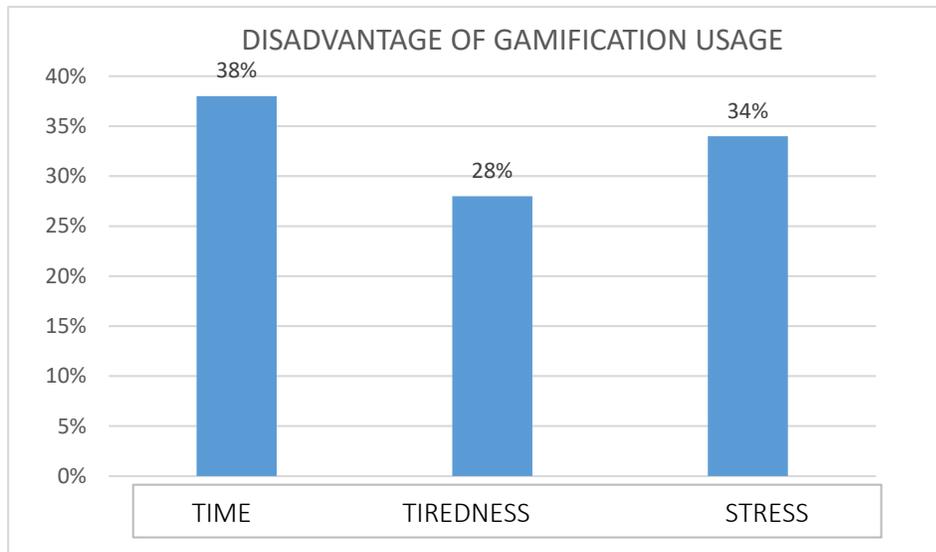
Chart 3. Level of interest of IT and Hospitality students in using gamification in selection process



Source: Author (2019)

When it comes to disadvantages of gamification usage in the selection process, 38% of respondents ranked time in the first place, 34% percent of respondents ranked stress in the second place and 28% ranked tiredness on the third place. (Chart 4.)

Chart 4. Disadvantage of gamification usage



Source: Author (2019)

Discussion

One of the main objectives of this research was to determine how human resources recruitment and selection processes can use gamification concept in recruitment and selection of employees. Furthermore, the aim was to develop an understanding what types of jobs (professional backgrounds) are more or less suitable with gamification approach and are candidates aware of gamification benefits/downsides in recruitment and selection process.

According to the literature, the gaming industry is mostly male-dominated. However, the results of this research have provided some interesting results. There is a tendency that female population is becoming more and more engaged in playing and creating games, which we are going to comment in this discussion. This information is important for the employers and recruiters who are using gamification as their recruitment tool. Employers nowadays face a challenge on how to attract and engage young people in the workplace. Technology advancement became a crucial element in everyday life and operations, therefore creating a need for the HR department to adapt. According to the literature (Walter R. Boot, Arthur F.), games effect on developing creative and critical thinking skills, logistics, memory, and ability to notice details and similar. A simulation is a tool used to practice and develop the ability to calculate, predict the outcome and problem-solving in a more fun and engaging manner.

Respondents in our research have identified that games can contribute to developing skills such as task orientation, teamwork, and persistence. They also considered that skills such as task orientation, teamwork and self-control to be most wanted at the labor market. What makes this

result important and valuable is the fact that the skills which are considered to be developed by games are also wanted at the labor market, therefore confirming findings from the literature review.

In order for recruiters to efficiently use gamification as a recruitment tool, they need to understand what are characteristic of people who are willing to participate in a gamified recruitment process. This research focused on measuring differences between male and female, IT and HTM students and their willingness to participating in the gamification concept.

According to the research findings, there is a significant difference between male and female gamers. There are 43% of male participants who identify themselves as gamers, while only 2% of gamers are female. However, the research found that even though females are not frequent game players, 80% of them are interested in using gamification in the selection process, compared to 86% of male respondents. This high result can, therefore, indicate the potential for the use of gamification as a selection method, for both male and female participants. According to the Entertainment Software Association's Sales (2018), the video gaming industry is not only reserved for the male population. 45% of the US female population is involved in playing and creating games.

Even though this researched was expecting that there is a significant difference between male and female students and their willingness to use gamification, the results have shown that both genders are equally interested in the gamified recruitment process. Furthermore, research expected to explore the difference between IT and HTM students and their interest in

gamification. However, the results have shown that students from both study programs are equally interested in gamification.

It can be assumed that the reason why both genders and both study programs are equally interested in using gamification is the presence of technology in everyday life. Millennials are used to interact via mobile phone or computer since young age, therefore going through gamified recruitment process is something they would find appealing. Furthermore, female participants probably would feel more comfortable to prove their skills and knowledge “behind the screen” rather than worrying about leaving the good first impression at the standard interview. It is known that 85% of Millennials are visually stimulated. If companies want to attract, motivate and retain employees they need to pay close attention to their behavior. Therefore, for Millennials who are visually engaged, gamification is perfect match when it comes to applying for a job. Gamified recruitment is still new concept in Croatia, therefore it can be assumed that students are interested and open-minded toward trying new and more fun way of applying for a job.

In terms of the limitation of this research, the short time period was the main issue. In addition, there was a lack of time to validate the survey. The sample that was used was rather small, participants were from two universities in Dubrovnik, Croatia. Therefore, there is an opportunity to continue further research on the topic by including a bigger sample (high schools, universities in Croatia, different study programs or expand the sample that includes multiple nationalities).

One of the benefits of this research is that it contributes to further understanding of gamification concept and its possible implementation in HR activities. Companies and recruiters can engage such a concept while recruiting and selecting candidates since this population is favoring the

gamification approach. Additionally, teamwork, task orientation, ambition, persistence, etc. that are indicated by this research to have the potential to develop these characteristics while playing games and which are needed in the labor market. This should be further explored and be validated.

Gamification is a unique tool that initiates change in HR and forces companies to move from traditional recruitment and selection concept and start engaging in new and modern approaches. Implementing gamification in recruitment should not be a choice, rather it should become a norm for companies in order to select the employees that will be the best fit for the organization.

Appendix - Instrument

Dear Survey Participant:

My name is Slavica Nenadić and I am a senior student at RIT Croatia Dubrovnik, a global campus of Rochester Institute of Technology, based in Rochester, New York.

For my final research project in International Hospitality and Service Management, I am examining the **usage of the gamification in the recruitment and selection process**.

Your participation is completely voluntary. The information you provide on this survey will be kept completely anonymous and confidential.

If you choose to participate, please answer all questions as honestly and accurately as possible.

Thank you for taking the time to assist me in my educational endeavors.

If you would like additional information about this survey or my research project, please contact me at snx4841@rit.edu or my mentor, Professor dr. Besim Agušaj at email besim.agusaj@croatia.rit.edu.

Sincerely,

Slavica Nenadić

Gamification in recruitment and selection

Please read!

What is gamification? Gamification is the usage of game-thinking and game mechanics in non-game scenarios such as business environment and processes, specifically in recruitment, training and development; in order to engage users, solve problems and select employees. Game mechanics consist of tools such as badges, collection points, competition, challenges and tasks, award in order to stimulate desired behavior.

1. Please express your level of agreement or disagreement whether **games develop** (board games, card games, puzzles, video games) the following list of attributes/traits (using the scale from 1-5):

1	2	3	4	5
Strongly disagree	Disagree	Neutral	Agree	Strongly agree

1. Ambition	1 2 3 4 5
2. Diligence	1 2 3 4 5
3. Persistence	1 2 3 4 5
4. Task orientation	1 2 3 4 5
5. Courage	1 2 3 4 5
6. Risk taking	1 2 3 4 5
7. Collaboration	1 2 3 4 5
8. Self control	1 2 3 4 5

2. In your opinion, how **wanted** are the following competencies at the work market at the moment?

1 Not wanted at all	2 Not wanted	3 Neutral	4 Wanted	5 Highly wanted
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1. Ambition	1	2	3	4	5
2. Diligence	1	2	3	4	5
3. Persistence	1	2	3	4	5
4. Task orientation	1	2	3	4	5
5. Courage	1	2	3	4	5
6. Risk taking	1	2	3	4	5
7. Collaboration	1	2	3	4	5
8. Self control	1	2	3	4	5

3. If you are applying for a job, how interested would you be in using game elements in selection process (online simulation game, collecting points and badges)
- Yes, that would be more interesting than the standard form of selection
 - Yes, but it would depend on the form (online, live, etc.)
 - No, I think that games are not able to reflect the competencies of the particular person, it is just an entertainment
 - No, I do not like games

4. Please rank the potential **disadvantages** of gamification's usage in the selection process (from 1 being highest disadvantage and 4 lowest disadvantage)

- a) Time-consuming _____
- b) Multiple stages of the recruitment process which makes me tired _____
- c) Bigger stress than during the standard selection process _____

5. Demographic data

- a) Female
- b) Male

6. Your program of study (for example Hospitality, Business, IT, WMC etc...):

7. Year level

8. What kind of work experience do you have so far (choose all the answers related to you)?

- a) Full-time job
- b) Part-time job
- c) Internship/Traineeship
- d) Volunteering
- e) None

9. How often do you play video games?

- a) Every day
- b) A few times in a week
- c) A few times in a month
- d) Once per month or less
- e) I do not play video games

10. How often do you play games (board games, card games, riddles/puzzles)?

- a) Every day
- b) A few times in a week
- c) A few times in a month
- d) Once per month or less
- e) I do not play games

Thank you so much for filling in the survey and your time!

REFERENCES

- A.R.Ferreira & A.Araujo & S.Fernandes & I.C.Miguel, 2017, Gamification in the Workplace: A Systematic Literature Review
- Aditya Narayan Mishra, 2017, How gamification solves recruitment challenges
- Bondarouk, T., & Ruël, H. (Eds.). (2017). Electronic HRM in the smart era.
- Chiradeep Basumallik, 2018, Gamification in Recruitment: All You Need to Know
- Dave Zielinski, 2015, The Gamification of Recruitment
- Fiona Sands, 2013, Gamification as a Strategic Human Resource Tool to gain Organizational Competitive Advantage via increased employee engagement Gamification in HR: The next Trendsetter (June 10, 2015).
- Lowman, Graham H. "Moving Beyond Identification: Using Gamification to Attract and Retain Talent." *Industrial and Organizational Psychology* 9.3(2016): 677-82. *ProQuest*. Web. 23 Jan. 2019.
- Mary Argue, 'The Importance of the Strategic Recruitment and Selection Process on Meeting an Organisations Objectives', May 2015
- Nair, A., & Sadasivan, R. (2019). Winning the Talent Game: HR Gamification Experience for Generation Z. *International Journal on Leadership*, 7 (1), 44-49
- Perinot, C. (2014/2015). Gamification in the field of human resource management.
- Rimon, Gal. "Six Surprising Truths about how Digital Transformation Will Change HR." *Strategic HR Review* 16.2 (2017): 102-4. *ProQuest*. Web. 6 Feb. 2019.
- Sarangi, Swatee, and Shreya Shah. "Individuals, Teams and Organizations Score with Gamification." *Human Resource Management International Digest* 23.4 (2015): 247. *ProQuest*. Web. 6 Feb. 2019.
- Stoilkovska, Aleksandra, Jana Ilieva, and Stefan Gjakovski. "Equak employment opportunities in the recruitment and selection process of human reosurces." *UTMS Journal of Economics* 6.2 (2015): 281-92. *ProQuest*. Web. 6 Feb. 2019.

Verlinden, N. (May 7,2018). 5 Examples of successful HR innovation.

Walter R. Boot,Arthur F. Kramer,Daniel J. Simons,Monica Fabiani,Gabriele Gratton,2018,
The effects of video game playing on attention, memory, and executive control