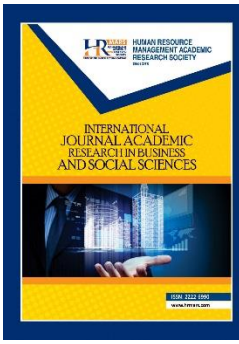

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Narrative Gamification as a Method of Increasing Sales Performance: A Field Experimental Study

Jaroslaw Grobelny
Institute of Psychology, Adam Mickiewicz University in Poznan
Poland

Joanna Smierzchalska
Institute of Psychology, Adam Mickiewicz University in Poznan
Poland

Krzysztof Czapkowski
Institute of Psychology, Adam Mickiewicz University in Poznan
Poland

Abstract
There is ongoing dispute whether gamification is an effective tool in increasing sales performance. Furthermore, there is a lack of evidence of gamification being a job performance management tool. After the discussion of elements of gamification (with a focus on narration) and the mechanism of this procedure, a field study was conducted to investigate whether implementing narrative gamification within a company will increase sales performance.
The study involved 81 employees of two comparable franchise units. Over a period of two months, in one franchisee the employees were working on their regular basis, while narrative gamification took place in the second franchisee. The basic measures were the sales volume data and sales change rates of the two telecommunications products.
Tests for difference and effect size were employed. The results of the intervention conducted have shown that narrative gamification had a positive impact on sales performance after two months. Not only did the sales performance in the gamified franchisee increase, but the increase exceeded that of the other franchisee.
Keywords: *Gamification, Performance Management, Job Performance, Motivation, Work Engagement*

Introduction

Over the last few years, gamification has become an extremely popular and controversial topic. It has as many allies as it has opponents (Armstrong, Landers, & Collmus, 2016; Seaborn &

Fels, 2015). Although the term remains ambiguous, an increasing number of fields, such as education, learning and knowledge management (Allam & Sutton, 2017; Domínguez et al., 2013), marketing, social media (Palmer, 2013), public health (Snyder & Hartig, 2013), business, and the work environment (Hamari, Koivisto, & Sarsa, 2014) have been gamified in order to increase engagement and motivation and create a pleasurable experience. However, little remains known about the actual impact of gamification on employee behavior and performance, as a great deal of knowledge is based on business case studies and conference papers (Balcerak, 2015; Seaborn & Fels, 2015; Werbach & Hunter, 2012). According to the annual Richardson Report (Melin, 2016), the current time may be the most difficult and challenging period for sales representatives and the right attitudes of the sales staff may be the way to meet most of these challenges. Therefore, it seems reasonable to analyze an innovative method of increasing sellers' engagement and motivation. Gamification can be considered one of such innovations. This paper discusses the use of narrative gamification in sales and contributes to relevant literature by providing quantitative data from a field experimental study on the effectiveness of this procedure.

Defining Gamification

Today there are differentiated approaches to the definition of gamification and researchers have paid little attention to defining and conceptualizing this phenomenon (Deterding, Dixon, Khaled, & Nacke, 2011). As a result, we lack a universally accepted definition of gamification or a taxonomy of its elements (Pedreira, García, Brisaboa, & Piattini, 2015; Werbach & Hunter, 2012). However, a vast majority of authors rely on the definition provided by Detering et al. (2011) in their work (Seaborn & Fels, 2015). Based on a review of current literature, gamification is defined as "the use (…) of design (rather than game-based technology or other game-related practices) elements (rather than full-fledged games) characteristic for games (…) in non-game" (p. 13). The most common of these elements are – without doubt – points, badges and leaderboards, called the PBL triad (Werbach & Hunter, 2012). Other components which, although less popular, seem to be equally significant for the efficiency of gamification were: challenges and quests, progress, cooperation and competition, rewards, achievements and objectives, immediate feedback, transactions, avatars and players' profiles, voting and betting, information gap, aversion loss and narration (Dignan, 2011; Genoseve & Mayer, 2001; Hamari et al., 2014; Hunicke, LeBlanc, & Zubek, 2004; Pedreira et al., 2015; Tkaczyk, 2012; Werbach & Hunter, 2012). In general, the majority of definitions take into account the use of multiple mechanisms, dynamics and elements of games in a purposeful and (most important) integrated way (Allam & Sutton, 2017; Deterding et al., 2011). Even so, gamification is often only identified with points systems or badges. As Woźniak (Woźniak, 2015) observed, gamification not only involves granting badges to someone, but also making the participants (players) want to acquire these badges. The term pointsification has been proposed for such a procedure in order to emphasize the limited nature of systems that add nothing more than a scoring system to non-game activities (Kapp, 2014; Robertson, 2010).

Narrative Gamification

Interestingly, it is rare for one seemingly crucial feature to be mentioned and implemented into gamification, that is narration (Fors & Lennerfors, 2017). A semantic layer (a story or a theme) added to gamification could become its kernel and this seems to have a major impact on the

other elements of the gamification procedure. Werbach and Hunter (2012) listed narration as one of the game dynamics which are the most important parts of gamification for designers. Nicholson (2015), too, stated that presenting a narrative layer is one of the elements of his RECIPE model for meaningful gamification and that it is one of the most important tools for constructing the gamification procedure. According to the Kappen and Nacke (2013), a tool for analyzing gamification (The Kaleidoscope of Effective Gamification) narration is one of the Perceived Layer of Fun, the elements that are perceived firstly by participants and therefore are crucial for the efficiency of the procedure. Although granting a narrative layer to gamification does not change the other design elements, narrative and non-narrative gamifications differ from each other in their perception, so much so that they could be considered separate categories during the analysis of the impact of gamification on their participants. Many authors have pointed out that taking narration into gamification is crucial for motivating players' participation and for providing them with additional ways to get involved in the procedure (Hunicke et al., 2004; Nicholson, 2015; Robinson & Bellotti, 2013; Woźniak, 2015).

Performance and Sales Management by Gamification

Employees' performance management is a suitable field to gamify and many implementations could be expected in this area (Oprescu, Jones, & Katsikitis, 2014; Werbach & Hunter, 2012). Sales staff management seems to be all the more appropriate for gamification, due to the widespread use of methods from which gamification has grown (like a sales contest) and the matching of gamification elements with the specifics of sales work (Armstrong et al., 2016; Chen, 2015). Yet, the vast majority of gamifications are used in education and knowledge management (Allam & Sutton, 2017; Li, 2014). When Hamari, Kovisto and Sarsa (2014) conducted their systematic literature reviews of gamification, only four identified procedures (out of only 24 that match the review criteria) carried out in the work environment. It is surprising how rarely information about the use of gamification in performance and sales management is presented. Furthermore, gamifications for sales staff are mostly non-narrative ("Glenroy unwraps gamification solution to motivate sales performance," 2015, "NewVoiceMedia launches gamification solution to revolutionise sales performance," 2015). Of course, it is possible that information about gamifying sales is not disclosed due to company privacy policies. Nevertheless, the subject of sales management with innovative tools (e.g. gamification) should be further developed, given the fact that sales executives, in particular, must face up to the new challenges of the dynamic and competitive market (Melin, 2016). This is especially true since analysis of relevant literature indicates that the mechanism of gamification is an effective method of increasing job and sales performance within widely accepted and empirically confirmed models.

The Mechanism of Gamification as a Method of Increasing Sales Performance

A great deal of gamification criticism concerns the issue of theoretical underdevelopment (or even a-theoretical approach) of research in this field or a lack of understanding among those applying certain theories in their studies (Bogost, 2015; Seaborn & Fels, 2015; Todd, 2017). That is why it is important to take a closer look at the theoretical mechanisms underlying the effectiveness of gamification as a job and sales performance management tool. A majority of authors have agreed that gamification affects both the motivation and the engagement of participants (Hamari et al., 2014; Herzig, Ameling, & Schill, 2015; Robson, Plangger, Kietzmann,

McCarthy, & Pitt, 2016; Seaborn & Fels, 2015; Werbach & Hunter, 2012). Therefore, its role in evoking both of these attitudes had to be discussed.

In their meta-analysis, Verbeke, Dietz & Verwaal (2011) showed that engagement is one of the five factors that have an empirically confirmed impact on sales performance. Maslach, the author of one of the most meaningful psychological models of work engagement (Maslach, 2011; Maslach, Schaufeli, & Leiter, 2001) stated that engaged employees felt energetically and emotionally connected with their job tasks. We believed that by gamifying tasks, these connections might be improved as employees would spend more energy on the tasks that are more enjoyable and they would experience more positive emotions because of the playful nature of these tasks (Hamari, 2013; Reeves & Read, 2009; Salen & Zimmermann, 2003). Schaufeli, who developed his own recognizable and widely accepted model of work engagement based on Maslach's work (Schaufeli & Bakker, 2010), listed three components of engagement – vigor, dedication and absorption. Gamification could increase employees' vigor as game design elements may encourage employees to apply more effort into their work and the mechanisms such as rewards and feedback could increase the persistence of these efforts. Furthermore, a narrative gamification could also increase absorption, as the narrative theme may help to focus fully and lead to a greater commitment to the tasks that are perceived by an absorbing story. Macey & Scheider (2008) noted moreover that engagement as a trait and state lead to engaged behaviors. These relations are moderated directly and indirectly by job characteristics. According to the exemplary model of job characteristics provided by Oldham and Hackman (1980), gamification can increase job variety (it becomes more attractive and less boring). Since a narrative gamification could be perceived as even more varied (through an extensive story), it would affect job variety even more. The mechanism described could explain the ability of gamification to increase employees' engagement without affecting their predispositions. Summarizing, this indicates that by gamifying sales management, sales executives could actually increase sales performance by influencing staff attitude (which directly affects performance).

Well-designed game elements included in the gamification procedure could motivate employees, too (Werbach & Hunter, 2012) and therefore increase their performance. The impact of motivation on job performance was described in the widely-recognized Campbell's model (Campbell, 1990), which specified job performance as a product (multiplication) of three predictors: motivation as well as declarative and procedural knowledge. Motivation itself is as well composed of three multiplied components: the choice to exert effort or not, the level of the effort exerted and the persistence of the effort exerted. Game design elements used in a gamification (such as quests, achievements and challenges) could make it more probable for employees to choose to exert an effort, while the level and persistence of the effort might be determined and maintained by other gamification elements, such as points, badges and leaderboards. Furthermore, a narrative gamification could have a greater effect on motivation, since what would be perceived by participants as an interesting theme, would facilitate the choice to apply an effort into the gamified task. Many authors choose to explain the motivational impact of gamification from the Self-Determination Theory perspective. This theory assumes that intrinsic motivation is composed of three needs: competence, relatedness and autonomy (Armstrong et al., 2016; Kappen & Nacke, 2013; Seaborn & Fels, 2015; Werbach & Hunter, 2012). Again, these needs could be satisfied by a variety of gamification elements, such as competence by levels and points, relatedness by social interaction, voting and badges and autonomy by the

choices that the participants made and by a range of experiences as they progress (Kappen & Nacke, 2013; Werbach & Hunter, 2012). Therefore, despite a lack of empirical evidence, relevant literature provides indicators of gamification effectiveness in job performance enhancement and in the sales contexts. It is also justifiable to assume that a narrative gamification could affect sales performance even more.

Narrative Gamification as a Method of Increasing Sales Performance

For this reason, the aim of this study was to examine the impact of narrative gamification in a specific situation. Such studies are required at the current stage of advancement of knowledge about gamification to provide evidence to support or reject beliefs about its impact in specific situations. Therefore, we decided to design and carry out a narrative gamification procedure for sales employees (in a telecommunications company), review their sales performance influenced by gamification and compare these performance changes against the control group. We predicted that narrative gamification would positively affect employees' attitude and consequently their sales performance would rise. We also anticipated that this growth would exceed any possible changes in the performance of the control group (without the narrative gamification). Therefore, we offer the following hypotheses:

Hypothesis 1. Conducting narrative gamification will affect sales performance. Specifically, the presence of narrative gamification will increase sales performance.

Hypothesis 2. The increase in the sales performance will be better in the group in which gamification is carried out than in the control group (if any change occurs).

Measures and Methods

Participant Characteristics

The participants in this study were employees of two franchisees (within the same franchisor). The main business of these franchisees was the sale of telecommunications services and products of the same, well-known GSM industry leader in Poland. Both offered a comparable product and service range and had implemented the same standards of sales (delivered by the franchisor). Both franchisees operate in the same province. Franchisee A (with the narrative gamified intervention) employees were of an average age of 27 years. This franchisee employed a total of 53 employees, 23 of whom were women (43.4%) and 30 were men (56.6%). Franchisee A had a total of 19 points of sale, 9 of which were located in big cities (47.3%), 4 were in medium-sized towns (21.1%) and 6 in small towns (31.6%). Franchisee B (without the gamified intervention) employees also were of an average age of 27 years. This company employed a total of 56 employees, 17 of whom were women (30.3%) and 39 were men (69.6%). Franchisee B had a total of 20 points of sale, 10 were of which located in big cities (50%), 6 were in medium-sized towns (30%) and 4 in small towns (20%) (they partly overlapped with those of the Franchisee A case). We intended to conduct narrative gamification to all franchisee A staff (given that selecting only a proportion of the employees could have had negative long-term consequences for the organization), but only the sales performance of 40 employees was analyzed. This is because we chose to exclude from analysis the performance of employees who were on leave (even partially) at the time of the study or who had previously left or who had joined the company at this time. The aim of this exclusion was to reduce the impact of confounders on the sales performance (franchisee A provided us only with data on those who met these criteria). Therefore, we asked

franchisee B management to provide us with information about the sales performance of 41 randomly selected employees (who met the employment period criteria as in franchisee A). No data were missing, as the information received from the management was based on company reports. There were moreover no bonuses for the participants (either individual or institutional). As we were conducting a field study, all measurements and procedures that the employees underwent took place in their actual workplace environment.

Measures

We used several measures in this study to observe and analyze job performance in both control and experimental groups. The data were obtained on a monthly basis and were collected from reports from the managements of both franchisees.

The basic measures were the sales volume data of the two telecommunications products promoted by the franchisor and sold by both franchisees. As these were the same products, all the external factors influencing their sale (such as advertising or seasonality) that we could not control in this study would exert the same influence within both franchisees. On this basis, the sales results for these two products (hereinafter referred to as product A and product B) could be considered comparable. We also used the sum of these two products sale volumes as a general measure (called simply overall). The data collected related to the monthly volume of sales (retrospectively) and related to three periods – the month before the intervention (this period is called t.0), the first month when gamification took place in franchisee A (called t.1) and the second month when narrative gamification took place in franchisee A (called t.2). Summing up, we used data related to three types of sales volume in three consecutive periods – for example, job performance (product A) t.0 referred to the number of one of the products sold in the month preceding the intervention and job performance (overall) t.2, which was the number of both products sold in the second month of the ongoing narrative gamification.

To be able to interpret the results between the two franchisees, we analyzed the rate of change of month-to-month sales in franchisees A and B. In this way, we were able to determine whether the results of sales in one franchisee were actually better (or worse) than those of the second franchisee. We analyzed the rate of changes in three periods: differences between the results at the beginning of narrative gamification and after a month of its application (or just in the same period in franchisee B, without gamification), differences between the first and the second month of narrative gamification (or the same period in franchisee B) and overall differences in the sales volume between the beginning and the end of the intervention (or just differences in the same two-month period in franchisee B). We maintained the same distinction in terms of the types of volume as described above. So, for example, sales change (product A) t.0-1 was the rate of change of the sales performance (sales volume) of one of the products after the first month of narrative gamification, and sales change (overall) t.0-2 referred to the rate of the overall change in sales performance after two months of intervention.

Research Design

During the two-month period (May 4 to June 30, 2017), the employees of franchisee B were working on their regular basis (no changes in management procedures were implemented), while in franchisee A narrative gamification had begun. The plot of the gamification was based on a popular spy movie series. According to the narration, each employee (player or participant)

became (adopted the role of) a spy infiltrating an international terrorist group and seeking to thwart their plans for blackmailing the governments of Western Europe and the USA. The decision to put the narration into gamification and the selection of a specific theme was preceded by work analysis (that included also a psychographic analysis of staff) as well as the consultation with franchisee A management. Apart from narration, the core element of the gamification launched was the reward system based on the token economy (Liberman, 2000). The tokens were presented in the form of points and virtual badges and, in addition to their intrinsic impact (such as the satisfaction of having a higher grade in the rank), these could be exchanged for material rewards (which may be considered back-up reinforcers). By way of introduction, four days before the launching of the narrative gamification, each employee received an email (from a dedicated account based on a spy theme) with the announcement of the forthcoming mission in the form of a theme-stylized text with an attached short movie clip and picture (both theme-stylized). The message specified that selling products A and B should be considered target behaviors. This message, as well as every other, was sent by a dedicated team who also watched over the implementation and maintenance of the narrative gamification. The responsibilities of the team were to develop the procedure of narrative gamification (in association with management) and to pass the information to the staff. The team were also constantly in touch with the participants by providing them with messages (described below) and answering questions and concerns regarding the procedure.

The procedures were conducted in the participants' native language (Polish). The elements described below were selected with a view to interacting with the narration and influencing employee engagement and motivation; elements that increase job variety (such as special missions), support the persistence of efforts (feedback) and increase its level (points, missions and badges) were chosen.

Procedure – Points and Missions

The participants had the opportunity to score points for standard tasks and, occasionally, for special missions. The points could be earned daily; therefore, the total daily points pool was rather small, but their gradual collection could result in earning a bigger prize in the future.

On the first day of the actual procedure, the players received a mail message describing the basic mission. They learned that it was necessary to sell products A and B (in the theme-stylized form – technological and informational warfare theme to be exact). Thereafter, they had the daily opportunity to earn two points for their sales performance, one for at least one signed contract for each of the specified products. At the end of each weekly settlement period, the top 10 players (with the highest weekly score) received an additional 5 points and a virtual badge. To boost the gamification rate, the number of points available daily was doubled at the beginning of June and subsequently in mid-June. Eventually, there were 8 points on offer daily and a further 20 as a weekly reward for the top 10 players.

Procedure – Badges

Those players with the most points at the end of each week received virtual badges to emphasize their position in the ranking. Each subsequent badge granted the player a new title that was theme-stylized (such as commander, superspy, ace, etc.) and these could be used as a signature.

Procedure – Special Missions

To break the routine of daily quests for points, the participants also took part in two additional long-term special missions. Employees at each point of sale were informed about the missions by means of letters sent in red envelopes. Each quest required teamwork and could be accomplished only by staff of the point of sale working together. As a reward for succeeding in the special mission, all the employees in the team that succeeded were awarded an additional 10 points (which in itself helped to obtain the next badge). The first special mission was conducted on May 18. The task involved the achievement of a specified level of sales for combined services (comprising products A or B). The second one started on June 22 and the mission was to reach a specified rate of commission on product A and B sales. The missions turned out to be much more difficult than expected; for example, only 2 out of 19 points of sale managed to succeed in the first one. As a reward, the participants were awarded points (as described above) and an additional award (which, in this case, was a bottle of the famous spy's favorite drink).

Procedure – Feedback

To provide the players with daily access to their current scores and positions in the ranking, the operational team responsible for running the gamification prepared daily e-mails with updated rankings of all players and a narrative continuation of the game plot. These messages also contained information about the top scores, badge awards and other important data.

Results

This section presents the empirical results of the intervention in the form of an analysis of sales performance and change in sales. The mean values of the sales volume in both franchisees are shown in Table 1. Franchisee A (experimental group, with narrative gamification) started with a lower sales performance level than franchisee B (control group, without gamification) in terms of absolute value. This pattern is present in each of the three measurements for both products and for their total volume. There was a downturn in sales after the first month for both products in franchisee B and only one in franchisee A. After two months, there was an almost threefold increase in sales performance in franchisee A and a doubling of sales in franchisee B.

Table 1
The mean value for sales volume (for every employee) in terms of the analyzed products in both franchicees

	job performance (product A)			job performance (product B)			job performance (overall)		
measurement	t. 0	t. 1	t. 2	t. 0	t. 1	t. 2	t. 0	t. 1	t. 2
company B (control group)	8.59	8.24	11.27	6.54	4.98	6.95	15.12	13.22	18.22
company A (experimental group)	5.58	6.15	7.65	4.20	3.38	7.38	9.78	9.53	15.03

Rates of change in sales are shown in Table 2. These are the mean values of rates of change for individual employees in both franchisees (and are therefore different than a simple conversion of Table 1 data). In franchisee A there are no rates below 1, which means that on average there was no downturn in individual sales performance during narrative gamification. These rates range between 1.15 and 3.12. In the case of product A, sales almost doubled (on an individual level) during the two-month period and increased almost threefold in the case of product B. Overall, individual employees of franchisee A increased their sales performance almost twofold. In the case of franchisee B, two of the ratios are below 1, but only slightly. Franchisee B employees' change rates range between 0.97 and 1.63. On an individual level, they raised their sales of product A by more than 60%, of product B by 23%, while the total sales increased by 30%.

Table 2
The means of individual sales change rates of analyzed products in both franshisees

	sales change (product A)			sales change (product B)			sales change (overall)		
measurement	t. 0-1	t. 1-2	t. 0-2	t. 0-1	t. 1-2	t. 0-2	t. 0-1	t. 1-2	t. 0-2
company B (control group)	1.21	1.60	1.63	0.99	1.52	1.23	0.97	1.54	1.30
company A (experimental group)	1.54	1.69	1.92	1.21	3.12	2.88	1.15	1.88	1.93

To determine the type of test for difference which should be used, the distributions of sales performance for franchisee A employees were compared to a reference probability distribution with the Kolmogorov-Smirnov test and Table 3 presents these results. As four of the distributions of variables differed from normal distribution, the non-parametric statistical test was chosen for further analysis (to facilitate the mutual comparison of data).

Table 3
Results of Kolmogorov-Smirnov test (Z value) examining variables' distribution normality

	job performance (product A)			job performance (product B)			job performance (overall)		
measurement	t. 0	t. 1	t. 2	t. 0	t. 1	t. 2	t. 0	t. 1	t. 2
company A (experimental group)	0.13	0.12	0.10	0.20***	0.17**	0.15*	0.18**	0.10	0.13
	sales change (product A)			sales change (product B)			sales change (overall)		
measurement	t. 0-1	t. 1-2	t. 0-2	t. 0-1	t. 1-2	t. 0-2	t. 0-1	t. 1-2	t. 0-2
company B (control group)	0.19***	0.21***	0.14*	0.18**	0.16**	0.14	0.11	0.21***	0.01
company A (experimental group)	0.19***	0.26***	0.20***	0.24***	0.19***	0.24***	0.13	0.19**	0.15*

Notes: *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$.

Next, to determine whether the sales performance of individuals in franchisee A actually increased, the Wilcoxon test was performed and the results are shown in Table 4. The differences in job performance (measured by the volume of sales at the end of the measurement period) broken down into products and the total were tested. We examined the differences between job performance at the start of narrative gamification and after the first month, after the first and second month and at the start and at the end of the intervention. To determine the actual size of differences, the effect size value was calculated based on the requivalent value proposed by Rosenthal (1994). First, to analyze product A, there were no significant differences between employees' job performance at the start and after the first month of the narrative gamification. However, after another month employees had increased their performance significantly, but based on the effect size value, the change was rather small. Finally, comparing job performance at the start and after the two-month period of the intervention, employees also increased their job performance, although it was a moderate increase. The same kind of parallel could be seen with product B. There were no significant differences after the first month; however, performance differed after the second month and between starting and ending measures. This time, difference was rather large after the second month and still moderate when considering the entire period. Eventually, we found the same pattern in terms of the overall job performance, but this time differences were rather strong after the second month and even stronger when performance at the beginning and at the end of narrative gamification were taken into account. In conclusion, these results support Hypothesis 1 – the implementation of narrative gamification actually increased job performance of franchisee A employees after the second month and when we compare the monthly sales volume from the beginning and end of intervention, specifically.

Table 4
The results of Wilcoxon test and effect size value for differences in job performance of franchisee A employees

	sales change (product A)			sales change (product B)			sales change (overall)		
measurement	t. 0-1	t. 1-2	t. 0-2	t. 0-1	t. 1-2	t. 0-2	t. 0-1	t. 1-2	t. 0-2
Z	1.09	2.08*	3.38**	1.44	4.28***	3.23**	0.12	3.98***	5.43***
$r_{equivalent}$	0.12	0.23	0.38	0.16	0.48	0.36	0.01	0.44	0.61

Notes: *p < 0.05, **p < 0.01, ***p < 0.001.

Then, we examined whether narrative gamification actually increased job performance based on a comparison with the sales volume changes of franchisee A and franchisee B. To test this, we compared the rates of individual sales change of both companies' employees. The Mann-Whitney test was chosen (for most of the sales changes, distributions in both franchisees were different from normal distribution) and the results are shown in Table 5. There were no significant differences in terms of increasing product A sales between employees of both companies; however, sales change rates for product B were significantly higher for franchisee A employees. Finally, and perhaps most importantly, the sales change rates for both products were significantly higher in franchisee A, when the entire gamification period was taken into account. It must be said, however, that the effect size value for this test was rather small (requivalent = 0.25), but this does not alter the fact that the difference was significant. We are, therefore, of the opinion that these results support Hypothesis 2.

Table 5
The results of Mann-Whitney test and effect size value for differences in sales change rates between franchisee A and franchisee B employees

	sales change (product A)			sales change (product B)			sales change (overall)		
measurement	t. 0-1	t. 1-2	t. 0-2	t. 0-1	t. 1-2	t. 0-2	t. 0-1	t. 1-2	t. 0-2
Z	1.05	0.38	0.61	0.37	2.57**	3.10**	1.21	1.12	2.63*
$r_{equivalent}$	0.12	0.04	0.07	0.04	0.29	0.34	0.14	0.12	0.25

Notes: *p < 0.05, **p < 0.01, ***p < 0.001.

Discussion and Conclusion

Based on the data obtained from both franchisees, we might say that the results of the study support our hypothesis. Narrative gamification implemented in franchisee A actually increased the sales performance of employees. Both of the main assumptions have been confirmed – not only did the month-to-month sales volume in franchisee A increase, but also the sales increased rates were better than in the control group. We would like to draw the – cautious – conclusion that gamification with narration could be an effective way to manage sales staff and improve sales results, whether by enhancing employee motivation and engagement or by making work more interesting.

Theoretical Implication

Many authors agreed that more good quality, quantitative data on gamification is needed, as most of the available knowledge comes from case studies, presentations and conference proceedings (Balcerak, 2015; Seaborn & Fels, 2015; Werbach & Hunter, 2012). Armstrong et al. (2016) went as far as to state that experimental methods specifically should be employed whenever there is an opportunity. For this reason, we believed our study is a decent contribution to the gamification literature, as it has presented exact, quantitative data and statistical analysis of narrative gamification impact on job performance in the sales context. However, it is necessary to pay attention to some ambiguity. Domínguez et al. (2013) showed that one could provide evidence for both positive and negative impacts of gamification on the behavior of participants. We have presented some insignificant results – there were no differences in the sales performance of one of the products analyzed after the first month of gamification and relative to the increase of sales of this product between the franchisees (however, the overall results differed in line with the hypotheses). A possible explanation is that this product sales was not suitable for gamifying or a longer period should have been taken into consideration, or there were some confounders that we simply could not control. This could be the indication for further, more thorough, research to analyze differences within gamification results (by employing other methods). It is also in accordance with the statement made by Armstrong et al. (2016) that only at a further stage of the research on gamification will we be able to tell which elements of game design (and which combination of these elements) affect specific tasks. As our results indicate, narrative gamification could be effective in the sales context in general, which allows a focus on further issues, e.g. whether certain tasks (such as the sales of certain products) are more or less susceptible to being gamified.

Narration was the crucial element of our intervention. Incidentally, it should be pointed out that narrative gamification implemented enjoyed a particular degree of staff enthusiasm. We noticed that some of the participants started to practice theme-stylized behavior on their own accord, such as using signatures consistent with the narration in the internal communication via e-mail or using stylized greetings to each other. It could be crucial for the success of such an intervention to choose the narration correctly, for example by first analyzing the alignment of the narrative theme with the staff, their age, interests, preferences, and personalities (Hamari et al., 2014; Star, 2015). It could be assumed that reluctance may be triggered by a narrative gamification theme that does not fit particular employees and could lead to a limitation of the results of gamification (or a total absence thereof). For example, there is some evidence that the unsuitability of a narrative theme may lead to an increase of turnover rate after implementation of narrative gamification (Racz & Wardaszko, 2015). It is also worth noting the overall compatibility between narration and job characteristic. In the situation presented, the sales staff worked with rather basic products and in a repetitive manner. It is possible that it is a condition of the effectiveness of narration. In such conditions, a story theme was an entertaining addition to the job and there was no risk of employee distraction or frustration (Nicholson, 2015).

Practical Implication

We should also pay attention to the general correspondence between a gamification procedure and participants' characteristics (Armstrong et al., 2016; Koivisto & Hamari, 2014; Werbach & Hunter, 2012). This might be an important trigger factor for the effectiveness of

gamification procedure (not only narrative one) to fit the choice and nature of game design elements used and employees characteristics (e.g. demographic). Before the decision about implementing the gamification is made, management should analyze the job characteristic and employees in order to estimate the chances of success of gamification. This is consistent with an evidence-based management perspective, which assumes that not only available empirical evidence should be used in the decision-making process, but also that the perspective of those groups that might be affected by the decision (Briner, Denyer, & Rousseau, 2009).

Furthermore, the time perspective of narrative gamification conducted is something to be looked into. A significant impact on sales performance was not observed before the second measurement as narrative gamification began to work after a month of being in place (some differences in the sales performance in franchisee A after a month were insignificant). It is possible that some hot-tempered manager could cancel a similar intervention based on the first month's results and in that case there would be no way for narrative gamification to work effectively. Such knowledge is particularly required when making decisions about narrative gamification, since unrealistic expectations for this intervention might have a negative impact on its later perception and evaluation (Armstrong et al., 2016). Perhaps companies that need to quickly boost their sales results should look for other types of management tools.

Limitation and Future Research

There were, of course, a few limitations of the study. The between-unit comparison could be considered a weak point from the methodological point of view. Data collection from separate franchisees may limit their comparability. However, individual performance was the subject of this study and therefore we gave the full measure to make sure that both franchisees' employees worked in comparable conditions. Admittedly, better (more comparable) conditions could not be achieved in a practical, field study such as this one. It is difficult to imagine that a single company would agree to implement such an intervention only to some of their staff, as this might cause numerous problems in their organization (for example, a lack of sense of organizational justice for employees who would certainly be aware of their exclusion).

Another significant limitation that must be noted is the extent to which our narrative gamification (and its components) may be held responsible for sales performance changes. Did the narration work, or the gamification as a whole, or just one other game design element (like rewards)? As we had conducted and presented the results of our field study, a shortage of these results' internal validity is their characteristic feature and should be expected. To isolate the impact of each factor, a different approach would be needed (that in turn would lack external validity). However, there are important indications from relevant literature that should be discussed. Werbach & Hunter (2012) refer to the results that show that leaderboards tied with traditional monetary rewards could actually demotivate employees. Armstrong et al. (2016) drew attention to limited impact sales contests and Aguinis, Joo & Gotfredson (2013) listed many limitations of monetary rewards. Given the above described mechanisms (section 1.4.), and that narrative gamification could not affect employees' competences (e.g. procedural knowledge) and that the franchisee already had introduced the system of rewards before the intervention (as it is common practice in sales companies), the increase of sales performance could be assigned to the employees' increased motivation and engagement caused by the narrative gamification used. The results presented indicate that the interaction of the narration scheme with such

gamification elements as points, badges and rewards could produce a favorable effect in the sales context. However, to isolate a single main effect for each of the factors requires further research.

Finally, a few suggestions could be offered. It remains to be seen whether narrative gamification could have a major impact on job performance when compared to other, traditional motivation and benefit systems (as the presented method is no more expensive than traditional benefits systems, it is even more worthy of consideration). Moreover, a study with numerous samples could be performed to test not just individual performance levels, but organizational ones as well. As the criticism of gamification is still strong and some are willing to call it just a management fashion or even management fad (Balcerak, 2015), it would be important to provide further empirical evidence and quantitative data in this field. As evidence on non-narrative and narrative gamifications impact on job performance management in the sales context is limited (Hamari et al., 2014; Pedreira et al., 2015), a further study of the issue is required.

Corresponding Author
Jaroslaw Grobelny,
Institute of Psychology, Adam Mickiewicz University in Poznan, Poland,
jaroslaw.grobelny@amu.edu.pl,
Institute of Psychology, Szamarzewskiego 89/AB, 60-568 Poland

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