"I Think It's Quite Subtle, So It Doesn't Disturb Me": Employee Perceptions of Levels, Points and Badges in Corporate Training

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Abstract. This exploratory study examines the white-collar worker perception of the three most common game elements in learning *Level, Points* and *Badges* applied in online training. Through surveys and interviews, the study reveals that the perception of the gamified course design was engaging. The game elements Levels and Badges were considered positive, while Points was viewed as indifferent. The study also detects that respondents in both the surveys and interviews had not noticed parts of the gamification design, making them negative towards the gamified course due to lack of coherence in the design. The authors of the paper suggest that further studies should address multimodal feedback, juiciness, and gamification to disclose which type of feedback is paramount in various gamified situations.

Keywords: Gamification · Corporate training · Game elements · Design · Juiciness · Multimodal feedback · Learning · Learning management system

1 Introduction

Due to the accelerated digitalisation and automation in industrialised and post-industrial countries, labour market skills are changing rapidly. Employees are likely to participate in lifelong learning to pursue various careers and develop competencies necessary in their current workplace [1]. Concurrently, the labour markets median age is rising, prognosticating later retiring, increasing the retraining demand on the existing workforce [2]. One essential solution for the issue is a corporate training, retraining, or upskilling [3]. A transformation from assembly line production to more autonomous work organizations in the production industries has led to a declining amount of low-skill blue-collar jobs in the manufacturing industries. Meanwhile, the numbers of high-skill white-collar occupations have generally been on the rise [3]. These occupations have traditionally demanded a more consistent strategy regarding renewing and updating due to the skills acquired during formal education currently do not keep pace with the rapidly digitalized work life. In 2017, it was estimated that the half-life of white-collar skills was approximately five years. That is, a skill learned five years ago is half as valuable as it was when

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it was learned [4]. In the software industry, the half-life of employee skills is considered to be around ten months [5]. This is predicted to go even faster in the upcoming year's making life-long learning not a luxury for the few but a requirement for the many to stay employable in the labour market. The situation has called for more scalable and quicker learning approaches for corporate retraining. One of the approaches is gamification, which is discussed for its uses in building habits through feedback. Gamification is often described as the application of game design elements in a non-game context [6]. The present case study investigates three of the most commonly applied game elements interface design patterns in learning, *Level, Points* and *Badges* [7, 8] when implemented in a gamified employee training course at an international transport company to understand employee perception of the game elements.

2 Related Work

In the field of human resource management (HRM) gamification has been described to offer an opportunity to enhance engagement and collaboration among employees [9], and to aid HR-departments in influencing employees' attitudes, individualizing training programs, offering incentives, and aligning processes with strategy [10]. Despite this, limited studies have been conducted in the field [9].

Qualitative interview studies have showed higher reported motivation, recognition, feedback, relationships building and enjoyment due to a gamified training program [11] as well as a positive attitude toward gamified training [12]. Another case, including comparative interviews, showed that gamification affected participants eagerness to cooperate, created a more enjoyable training experience, and provided a more positive attitude towards the training [13]. Despite the positive attitude expressed by employees, gamification has shown limited effects on performance outcomes. In a lab and field study showed that even though gamification resulted in higher satisfaction it only led to marginally higher learning outcomes [14]. Similarly, that adding narrative game-elements in a case of employee training had led to increased satisfaction but equal or lesser training scores [15]. In a more long term field experiment, however, gamification showed an increased internal motivation in employee training [16]. Also, in an experiment design study with 22 participants regarding gamified AR-training did not find a significant difference in performance and engagement between a gamified and non-gamified condition [17]. The varied results expressed in previous studies is noteworthy Suppose gamification has value in the upcoming *reskilling revolution* [1] then there is a requirement for a more dependable understanding of different game elements perform in corporate training and how adults perceive different them while they undergo training. The following explorative research question investigated: *How do white-collar workers perceive the most common game elements Level, Points and Badges in a corporate training course?*

3 Methods

The investigated case is a self-paced digital corporate training online course on upcoming technology trends in the production industry given in a Learning Management System

(LMS). Gamification was not part of the initial LMS designed but was added by a gamification studio collaborating with the LMS provider. Eighteen respondents participated in the course that lasted for three weeks. The course had a 68% completion rate, which was higher than the transportation company's average employee courses. Structured interviews were conducted with four participants, and a survey was sent out after the course to all participants. A survey was constructed to collect valid information on how the employee *perceives the game elements* in their corporate training. The survey consisted of 14 balanced equally between ordinal- and open-ended questions. Ordinal questions used a seven-point Likert scale addressing questions such as "*My experience of XX in the course was…*". The ordinal questions were followed with an open-ended question asking the respondent to elaborate on the previous question. The purpose of the chosen survey design correlates to the survey objective to gather comprehensive data from the respondents [18].

In the standardized open-ended interview, the participants were asked the same questions in the same order. They were expected to contribute with extensive, open-ended answers regarding their perspectives and experiences, providing a substantial and in-depth narrative of the inquiry [19]. Standardized interviews were chosen to facilitate an inductive content analysis [20] in the investigation, pursuing a deep understanding of how the *employees perceive the game elements*. A purposeful sampling of the interview respondents was made by the corporation to address the departments participating in corporate training (Table 1).

Table 1. Respondents

Name in study	Role in company	Age	Course time	Interview length
Respondent 1	Business development	45	3 h	23 min
Respondent 2	Human relation	41	10 h	31 min
Respondent 3	Business development	55	4 h	25 min
Respondent 4	Human relation	31	8–10 h	24 min

4 The Gamification Design Flow

The corporate training was gamified through an API implemented in the corporation LMS by a gamification studio. The API added a gamified visualisation of the employee progression in the course. Every time a task was completed, the employees gained *Points*. When employees completed all tasks in a course block, they were rewarded *Points*. These *Points* were needed to advance *Levels*, which were designed to show employee progression in the course. The *Badge* element served as the backbone of the gamification design. The *Badge* was outlined on a set of different goals and was visualised by different icons. The *Badge* was designed to engage the employees in completing different course tasks in the LMS system. When a *Badge* was completed, the box related to the task was checked. In the gamification design, there were three types of *Badges:* Milestones:

providing information on the employee progression in the course; Social achieved by completing community task like peer-review course mates assignments; Award attained thru being active in the LMS and thorough in the course like complete all the course quizzes with 100%. The *Badges* outline the gamification designer and the corporate learning manager co-designed to increase the employee's probability of succeeding in the course (Fig. 1).

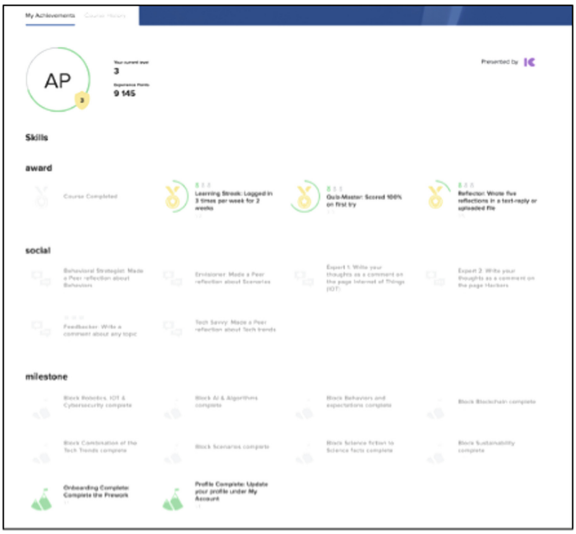

Fig. 1. The gamified dashboard showing the game elements Level, Points and Badge (called Achievement) in the gamification implementation.

5 Results

5.1 Survey Responses

Of the survey respondents 8 out of 9 (88%) were positive toward *Level* 1 skipped the question. 7 out of 9 (77%) were positive toward *Badge*, while the rest were neutral. 5 out of 9 (66%) were positive toward *Points*, while the rest were neutral (Fig. 2).

The employees also gave their remark on the game elements. The employees expressed that the *Level* element provided them with visual progression as the level meter is at the bottom and fills when they were progressing. One expressed concern was how many levels there were in the course. There was also an expression that the employees were not sure of the *Level* element's purpose other than motivation indicating that the respondent was unsure of the *Levels* purpose or expressed an untapped potential.

Employees expressed that the Badge's purpose was vague, expressing a need for clarification. Furthermore, there were opinions that the Badge elements should be better connected with the actual course content. Also, there were comments regarding the

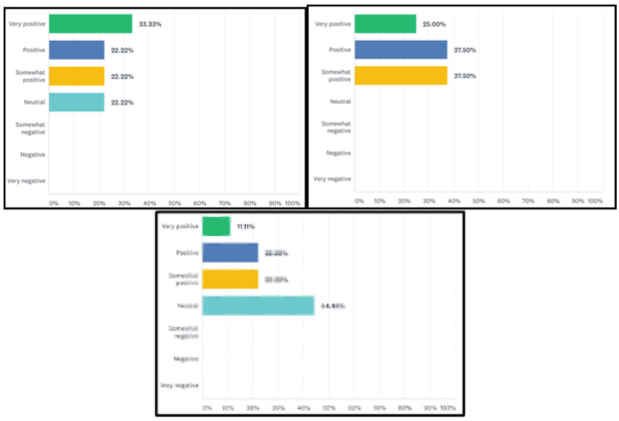

Fig. 2. From left to right descriptive statistics showing perceptions of *Badge*, *Level* and *Points*

Badge element's visibility in the interface, indicating a requirement for a more inductive design approach.

The respondents' opinion about the game mechanic *Points* was that its purpose was vague. The employees displayed that they did not understand the game mechanic significance, e.g. how many points needed for a course' pass or a pass with distinction', etcetera. Also, the employees expressed that *Points* would have a more significant impact on them if an indication of how many points should have been accumulated arriving at a new theme in the course. Again, opinions appeared concerning the *Point's* visibility, as some of the employees had not percept them in the interface.

The game elements *Level* and *Badges* were perceived as more positive than the *Points* in the course, which could depend on the circumstance that Points' intention and purpose were unclear for the employees.

5.2 Interviews

The interviews were done after half of the course was completed. All the interviews were conducted in a timespan of two days. The inductive content analysis addressing the respondents' opinions on gamification and their perception of the game elements gave a diverse representation. In the interview, respondents 2 and 4 expressed being positive toward the gamification set-up, supporting them to stay engaged in the course.

> *"I think it's really good because you have an overview of what you have done so far and what's your level is and so on."* (*Respondent* 4)

Also, there are notions that gamification within this company's corporate training was viewed as something novel and innovative.

> *"From my perspective, it's good that they have done something new and have experimented with this section, taken it to the next step." (Respondent 2)*

Respondent 2 and 4 expressed that gamification gave a suitable outline of the course, making it easy to follow and grasp if they completed the assignments and were in the course they currently were situated. Also stressed that gamification was an appreciated approach in the corporation's learning strategy. However, these expressions were not shared in all the interviews. Respondent 1 and 3 expressed that gamification probably was helpful for some learners but not for themself.

> *"I believe it's a good thing. And I believe that it is the one thing you might need thinking forward […] I don't feel this is a problem […] like it is now. I might not be the kind of person who is buying it (gamification), but it can provide a bit more motivation for some." (Respondent 1)*
>
> *"That might probably motivate some people because we are all different […] I am not personally motivated by it. I think it's quite subtle, so it doesn't disturb me" (Respondent 3)*

Respondent 1 and 3 indicated that integrating gamification in the course was legitimate to aid less motivated course participants underlining the everybody is different, having their drivers and barriers regarding company training. Both respondents also mentioned that the gamification design did not distract them in its current state due to its subtility and nonintrusive design.

However, in the interviews, there was also uncertainty about what was part of the gamification design. Respondent 1–3 had not noticed the *Level* element, and Respondents 1 and 3 had not noticed the *Badge* element. Not recognizing the entire gamification in the interface affected the perception of the design. Respondent 3, who had noticed *Badge*, but not the *Level*, commented on the lack of coherence that some *Badges* were inaccurate due to indicated progress in the course.

> *"Now, when I started to think about it maybe I miss some of it. But I just noticed that you know whenever I submitted an answer (on a course task) I would get a message that I had reached blah blah blah. But you know it wasn't important to me, so I did not pay much attention to it other than remembering it now since you're asking about it." (Respondent 3)*

Respondent 3 noticed parts of the gamification design after two weeks after the course starts indicating that it was due to not considering gamification. In contrast, Respondent 4 had perceived both *Badge* and *Level* and were favourable toward gamification and appreciated the gamification design.

> *"I think there are some good features. The milestone is good because it makes you grasp what's accomplished, what's next and so on. Also, the course completion bar tells me how much that remains of the course." (Respondent 4)*

Respondent 4 had observed the Badge and the Level, and in the interview, she made inferences of how the design flow could be optimised. Respondent 4 suggested that the *Badges* could resemble the course tasks better and that it should be more apparent how much effort it was needed to collect them. This indicated that she had comprehended the gamification design intention and asked the designer to optimise it further. Regarding

Points, respondents 1–3 had not recognised that they were earning points when they completed different course assignments. Respondent 4 had noticed that she was earning points when she finished something in the course but had not comprehended the *Point's* purpose.

6 Discussion

The results concluded that the most common game elements in learning [8] are perceived positive by the employees, especially the *Badge* and the *Level*. *Points*, however, was perceived as less positive by the employees than the *Badge* and the *Level. Points* was perceived as hard to grasp and contained a low significance in the course, which differs from the *Badges* and the *Level*. *Badges* and *Level* were commented as more useful for the employee, giving them a visualisation of their progression. Descending deeper into the notions of the employee's interview, the respondents had a mixed impression on the gamified design. While Respondent 1 and 3 expressed it as a thought-provoking and novel take on the corporate course, they stated that it didn't affect them. Respondent 2 and 4, on the other hand, expressed that the added gamification features in the LMS enhanced the learning experience making the course easy to follow and made it straightforward to track their course progression.

One topic that occurred in both the surveys and the interviews was that some gamification features had been designed too subtle in the LMS interface resulting in that some employees had not noticed them. Not comprehending all the aspects of the gamification designed seemed to harm the perception of gamification. Gamification design has been suggested is not sufficient, just adding game elements [21]. The gameful experience that game elements elicit is what motivates the user [22, 23]. A good gamification design should include *juiciness*, meaning that the user's feedback should apply to several senses in the form of sounds, visuals, and animations [22, 23]. In the investigated case, the *Points*, *Level* or *Badge* may have provided sufficiently informational feedback, but their visual representation was too subtle and lacked "juiciness". A more multimodal feedback approach in the gamified course could have been beneficial.

The inquiry suggests that the current implementation did not offer sufficient gameful and juicy aspects due to gamification's subtle nature, highlighting that visibly-factor should be investigated more and discussed for inclusion in forthcoming studies. As shown here, employees can be positive toward gamification without understanding the purpose of the game elements, highlighting whether a positive attitude toward gamification should be a useful performance indicator. As suggested in previous studies [14, 15], engagement does not necessarily imply increased knowledge; this calls for future research to investigate how game elements in employee training should be designed to elicit more than motivation but also learning performance.

7 Conclusion and Further Research

This exploratory inquiry aimed to exam some of the most used game elements in gamified learning design to determine how white-collar workers perceived them in their

corporate training. *Badges* and *Levels* were perceived as positive by the study respondents, while *Points* was considered indifferent. Both survey and interviews revealed that the game elements had been too subtle, making them hard to grasp for the user indicating a negative perception of the implementation. Therefore, further research should do more investigations regarding game elements localisation in the user interface regarding visibility and understandability for the user.

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