Evaluating the impact of gamification on user engagement in B2B SaaS onboarding

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As the Software as a Service (SaaS) market becomes increasingly saturated, effective onboarding has emerged as a critical factor for enhancing user engagement and reducing customer churn. This is particularly important in the complex, multi-stakeholder environments of B2B products, where first impressions are vital and switching between providers is easy. Given that the SaaS and gaming industries share challenges such as discoverability issues, early user retention and intuitive design, this thesis investigates the impact of gamification on user engagement during the onboarding phase of B2B SaaS products. Thesis follows the definition of gamification as *the use of game design elements in non-game contexts*.

The research is grounded in a theoretical framework that defines SaaS onboarding through four core elements: *statement of purpose, user identification, informational support*, and *conversion event*. The study combines a literature review on SaaS and game design with a multiple case analysis of three B2B SaaS products (Cuckoo, ProdPad, and Todoist). Additionally, semi-structured user interviews with seven B2B participants exploring Todoist are conducted. The interviews are analyzed thematically using the onboarding element framework to gather user-centered insights on the role of gamification in SaaS onboarding.

Findings show that forward gamification elements, such as visual progress indicators and contextual guidance, enhance clarity and user motivation during onboarding. In contrast, reward-based elements, such as points or levels, receive mixed responses depending on user autonomy and their relevance to work-related goals. The study underscores the importance of layering gamified features on top of a strong UX foundation and offers practical implications for SaaS providers aiming to differentiate their onboarding experiences from competitiors and foster long-term user engagement in B2B contexts.

Keywords: SaaS, B2B, gamification, onboarding, user engagement

Contents

1 Introduction

Software as a Service (SaaS) is a cloud computing model that delivers software applications with minimal direct involvement from the customer. It has become a popular model in modern business due to numerous advantages, including flexible pricing models, scalable multi-device access, and cost-efficiency through an on-demand, self-service framework.

However, as the SaaS landscape becomes increasingly saturated and competitive, the importance of first impressions has grown significantly. A critical phase in this process is the period during which new users begin to explore, understand, and derive value from a product. This thesis outlines that phase as *onboarding*. Effective SaaS onboarding is vital for user engagement, satisfaction, and long-term retention, while poor onboarding experiences often lead to early user churn.

To address onboarding challenges, this paper proposes that SaaS providers may benefit from user engagement strategies employed in the gaming industry. Similar to SaaS, the gaming industry is highly competitive, and game design techniques, such as narrative, rewards, and progress tracking, have been widely recognized for their ability to motivate and retain users. This approach, known as *gamification*, integrates game design elements into non-game contexts to enhance user experience and motivation.

1.1 Goal of the thesis

Although gamification has gained popularity in business-to-consumer (B2C) SaaS applications, its application in business-to-business (B2B) contexts remains relatively underexplored despite the fact that B2B customer journeys are often more complex and multi-layered.

Therefore, the goal of this thesis is to address that gap by examining the impact of gamification elements on user engagement during the critical onboarding phase of B2B SaaS products. Moreover, this thesis is written in collaboration with the software development company ATR Soft Oy and it aims to support them by finding ways to enhance user engagement in SaaS onboarding.

The following three research questions are addressed:

RQ1 What benefits can be achieved with an effective SaaS onboarding phase?

RQ2 How is user engagement maintained within game development?

RQ3 How game elements can enhance user engagement during B2B SaaS onboarding?

1.2 Methodology

The first two research questions are addressed through a literature review incorporating academic research on the SaaS business model, B2B customer journeys, onboarding practices, and gamification. The aim is to establish a theoretical foundation for understanding onboarding and gamification within the scope of this study.

To explore how the gamification elements identified in the literature are implemented in practice, a multiple case study approach is adopted. Three SaaS products from different domains within the B2B landscape are selected and analyzed through their gamified onboarding experiences. Finally, to answer the final research question,

semi-structured remote interviews are conducted with seven participants representing B2B user profiles. The interview data is analyzed thematically, with a particular focus on user engagement, onboarding effectiveness, and the role of gamification.

1.3 Use of generative AI

In this thesis, generative AI tools were used in a supportive, non-creative role. The OpenAI GPT-4o model was employed to assist with grammar correction, typos, and improving textual coherence. It was not used to generate original content which is based on external sources, listed in the references, or personal analysis and reflection.

Additionally, the OpenAI o3 model was used as a pattern-matching assistant during the thematic analysis process. It helped identify recurring themes and propose preliminary code labels for the interview transcripts, which were then reviewed and refined by the researcher.

1.4 Structure of the thesis

The structure of this thesis is as follows.

- Chapter 2 explores academic literature covering the key characteristics of the SaaS model.
- Chapter 3 examines the B2B customer journey with a particular focus on the onboarding phase, thereby addressing RQ1.
- Chapter 4 defines gamification and identifies relevant game design elements from the literature to answer RQ2 and form the basis of the case studies.
- Chapter 5 demonstrates gamified onboarding in practise with three B2B SaaS case products.

- Chapter 6 outlines the user interview process, including participant profiles and interview structure.
- Chapter 7 provides a thematic analysis of the interview findings, thereby answering RQ3.
- Chapter 8 concludes the thesis by answering the research questions, addressing study limitations, and proposing future research possibilities.

2 Software as a Service (SaaS)

In 1999, Salesforce launched its cloud-hosted customer relationship management (CRM) system, being the first widely recognized Software as a Service (SaaS) product [1]. Since then, SaaS has steadily grown in B2B software market. This chapter explores academic literature and provides an overview of the cloud computing landscape in the B2B sector. The primary focus is to examine SaaS in greater depth, highlighting its defining characteristics, advantages, and its expanding role in modern business environments. This chapter lays the foundation for Chapter 3, which will further explore SaaS customer onboarding.

2.1 Cloud computing as a B2B service

Terpoorten, Klein, and Merfeld [2] show that business models are increasingly adopting the *as a service* paradigm. Therefore, cloud computing has emerged as a solution where a cloud provider manages services on behalf of companies. Cloud computing enables businesses to access computing resources remotely via distributed data centers. Cloud computing offers various benefits one of which is its self-service capabilities allowing businesses to purchase and manage IT resources independently, without direct provider interaction.

The B2B cloud computing market is structured around three primary service models: Infrastructure as a Service (IaaS), Platform as a Service (PaaS), and Software as a Service (SaaS). Together, these models form the cloud computing stack

[2]. Each model is designed to address different customer needs, with varying levels of IT management responsibility shifted to the cloud provider [2], [3]. This hierarchy is illustrated in Figure 2.1. IaaS provides customers with the highest level of control over infrastructure resources, PaaS simplifies application development by managing runtime environments, and SaaS, at the highest level, delivers fully managed software applications with minimal customer involvement. This thesis focuses on the SaaS as the B2B cloud computing model.

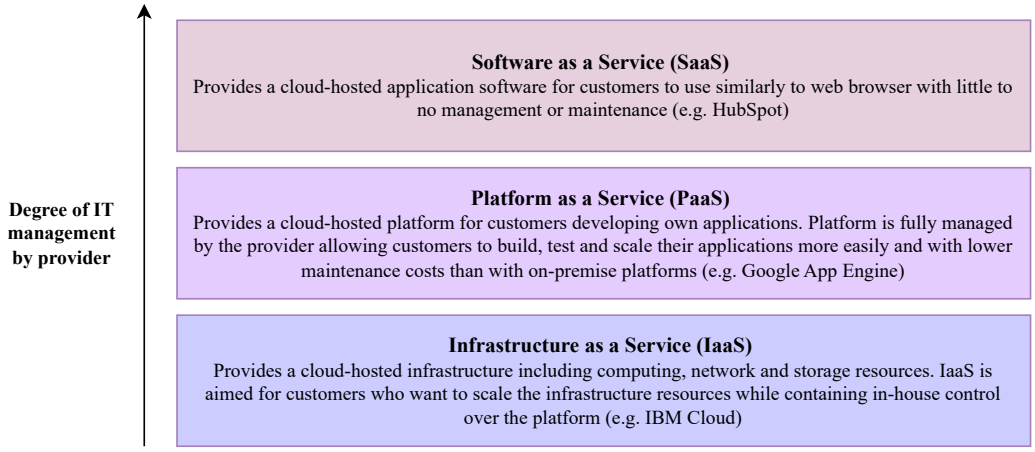

Figure 2.1: Cloud computing stack and its hierarchy based on [2] and [3]

2.2 SaaS characteristics

As shown by Figure 2.1, a SaaS provider is responsible for all aspects of the software. This includes applying updates and security patches as needed, managing and maintaining the servers, network, and storage infrastructure that support the application, as well as ensuring cloud security and data backup [3]. Consequently, customers have little to no management or maintenance responsibilities, making SaaS the dominant software delivery model today. Mero et al. [4] further highlight the growing volume and variety of available SaaS solutions, along with the increasing

shift toward the SaaS model by major software companies such as Microsoft.

Li and Kumar [5] identify multi-tenant architecture and Internet delivery as the two key differences between SaaS and traditional software. In multitenancy, a single instance of the software serves multiple users, optimizing scalability and cost efficiency by allowing customers to share a common infrastructure. Internet delivery, on the other hand, enables users to access the software from any location with an internet connection, enhancing flexibility and ease of use. These defining features of SaaS lead to special business characteristics, as identified by [5] and [6], which will be discussed next.

2.2.1 Pricing structure

The SaaS model offers various pricing options such as subscription pricing, pay-per-use, or charging based on the number of users. Especially the pay-per-use pricing allows organizations to get fast results by rapidly experimenting with new products as needed with minimal expenses. Pure dynamic pricing is less popular in the B2B SaaS market because customers prefer predictable financial planning, which would be challenging with fluctuating prices. However, SaaS providers often enter the market with lower prices and gradually increase them over time. [5], [6]

Unlike traditional software, potential SaaS customers often want to explore the features and potential value of the product before making a purchase. As a result, many SaaS providers offer free trials, freemium tier or initial lower prices to attract customers. [3], [5] A freemium version is always free but it includes access only to limited features while in free trial users can have access to all features for a limited period of time. The goal with these both approaches is to eventually convert users to a paid plan.

2.2.2 Marketing and competition

Seventy percent of the software utilized by companies consists of SaaS applications. On average, companies with over 1,000 employees rely on approximately 150 SaaS products for their day-to-day operation. [7] This underscores the intense competition in the SaaS market and highlights the importance of growth, effective marketing and customer acquisition.

Product-led growth (PLG) is a SaaS growth strategy relying strongly on organic market expansion where the product itself drives customer acquisition. Instead of relying on traditional sales or extensive marketing efforts, PLG focuses on delivering an exceptional user experience that encourages adoption and retention. PLG has become a leading industry trend for growth strategies due to its many advantages. By positioning the product as the main tool for customer acquisition, PLG reduces marketing and sales costs. Additionally, the approach often features a pricing structure, such as the freemium model, that allows users to experience and derive value from the product before committing to a purchase. [8]

The success of the PLG approach depends on the product's ability to deliver value to users immediately upon their first interaction with the landing page. This underscores the critical importance of the onboarding phase in product-led SaaS products. Effective onboarding is essential for swiftly demonstrating the product's features and value, thereby facilitating user engagement. The emphasis on effective onboarding makes PLG particularly relevant to this thesis. The onboarding of SaaS products will be discussed in more detail in Chapter 3.

While PLG is the focus of this thesis and has become the dominant growth strategy in SaaS, other approaches also exist. The key difference between the approaches can be seen especially in sales and marketing:

- *Sales-led growth (SLG)* is a more traditional approach where sales teams drive customer acquisition [8]. Unlike PLG, SLG prioritizes direct engagement with decision-makers rather than organic user adoption. Onboarding tends to be shorter, as sales pitches and demos provide structured guidance to potential customers.

- *Market-led growth (MLG)* focuses on developing a product that aligns with broad customer needs through extensive market research [8]. While MLG strategy helps establish a strong product-market fit, it does not inherently drive organic user adoption like PLG.

- *Customer-led growth (CLG)* relies heavily on user feedback to shape product development [8]. By refining features based on real customer experiences, CLG enhances retention. However, it is often combined with PLG rather than used as a standalone growth model.

2.2.3 Broad network access

SaaS offers flexible and scalable access to software across various devices and platforms, such as workstations, laptops, or tablets, thanks to its broad network access [3]. This also means that there are no geographical or time constraints, enabling customers to purchase and use the software continuously. As a result, consistent, high-quality customer service becomes essential [6]. Li and Kumar [5] note that this broad access makes SaaS services sensitive to delays. However, some providers can monetize heavy users by offering higher-tier plans that guarantee better service quality.

2.2.4 On-demand self-service

The on-demand self-service model allows customers to acquire SaaS applications whenever needed, without direct interaction with the provider [2]. This eliminates the maintenance burden for customers, which is typically a significant part of their IT spending [6].

Additionally, self-service capabilities enable organizations to quickly adopt new applications, as employees can acquire the necessary services without relying on IT departments. This often leads to solutions that are better suited to customer needs [4], [6]. However, as Khalil and Winkler [6] note, self-service adoption also increases the likelihood of rapid switching. If a SaaS application fails to meet customer expectations, users may quickly move to alternative solutions.

3 SaaS onboarding

According to Weber [9], many providers pay little or no attention to their customers after a sale even though the beginning of the customer relationship is the most important part of the customer journey. This chapter explores the existing research on SaaS customer journey and outlines the scope of onboarding process for the context of this thesis. A comprehensive SaaS B2B customer journey map is introduced, synthesizing key findings into a visual framework that serves as a foundation for the onboarding section. This chapter aims to answer RQ1 by focusing on how effective onboarding impacts customer engagement, satisfaction, and retention.

3.1 Customer journey

The customer journey describes the process customers follow, beginning with the recognition of a need and culminating in the use of a product or service. This journey comprises various interactions, referred to as touchpoints. [10] In the context of SaaS markets, the customer journey spans from the initial discovery of a SaaS product to the point where the customer becomes an active user of the product.

According to Terpoorten, Klein, and Merfeld [2], understanding the customer journey has become a critical competitive advantage in B2B markets. This understanding enables providers to analyze and explain customer behavior, ultimately allowing them to create value for customers. Consequently, a well-mapped customer journey can be regarded as a significant source of customer value.

Homburg and Tischer [10] note that customer journeys in B2B markets are often more complex than those in B2C markets due to many factors, such as higher switching costs and multi-person decision-making. This complexity may partly explain why much of the existing literature on customer journeys has focused primarily on the B2C context. [2], [10]

3.1.1 Touchpoints

As customers progress through their journey, they encounter multiple factors that influence their behavior either directly or more indirectly. These factors are referred to as touchpoints. Homburg and Tischer [10] describe them as means through which provider and customer engage. Touchpoints can also be conceptualized as moments of truth, given their significant role in determining whether customers continue or discontinue their journey. [2], [11]

Usage of touchpoints differs between B2B and B2C customers since B2C customers tend to use them for enjoyment whereas B2B customers tend to seek economic value generation [10], [12]. To illustrate, consider HubSpot, a popular B2B SaaS customer relationship management (CRM) platform. Suppose a mid-sized company is evaluating CRM solutions. They might discover HubSpot through a Google search, or perhaps an employee recalls seeing a LinkedIn post recommending the platform based on a successful implementation. Alternatively, the company could attend a free HubSpot webinar to better understand CRM benefits or schedule a demo by filling out a form on the HubSpot website. As seen in this example, the growing number of touchpoints in today's digitally enriched B2B markets has added complexity to SaaS customer journeys. Therefore, it is crucial to identify what affects decision-making at these touchpoints.

However, not all touchpoints are fully in provider's control. Lemon and Verhoef [11] identify four distinct categories for customer journey touchpoints depending on

their ownership: *brand-owned, partner-owned, customer-owned* and *social/external*. These can be seen in Table 3.1 with short description over the ownership of the touchpoint and few concrete examples.

Table 3.1: Summarization of customer journey touchpoints in [11]

Brand-owned	Designed and managed entirely by the provider. Providers maintain full control, making these touchpoints the most direct way to influence customer decisions.	Direct marketing, websites, search engine advertising
Partner-owned	Managed collaboratively between the provider and partners (e.g., marketing agencies or distribution partners). Control over these touchpoints is similar to brand-owned ones, but responsibilities are shared.	Third-party e-commerce platforms, influencer promoting
Customer-owned	Interactions and decisions made solely by the customer, independent of the provider or partners. Significant in the post-purchase phase but can also occur in other phases.	Reflection on own experiences, evaluarion of payment methods during purchase
Social/external	Influences from third parties and external factors, including other customers, independent information sources, review websites, or social media platforms.	Review websites, social media platforms, independent information sources

3.1.2 Stages of the B2B customer journey

In the literature, the B2B customer journey is typically divided into different phases to make the complex process more manageable. A universal view in several studies [2], [10], [11] identifies three stages: *prepurchase, purchase*, and *postpurchase*, based on the timing of the customer's interactions with the product. However, the stages are generally recursive, meaning that customers may repeat their journey using different touchpoints [10]. Due to its recursive nature, customer journeys tend to be dynamic, meaning it may not occur in chronological order but customers tend

to switch between stages throughout their journey [11]. This thesis adopts the three-stage framework in the context of B2B SaaS customers, identifying critical touchpoints in each stage using the categorization from Table 3.1.

Prepurchase

The prepurchase stage includes all interactions customers have with a product or service before purchase, starting with need recognition and consideration of value [11]. Today, need recognition is influenced by advertising, content marketing, word-of-mouth, and online forums [2], with recommendations being particularly impactful in the SaaS context [4]. These highlight the role of customer-owned, brand-owned, and social touchpoints in shaping decisions.

This stage also involves information gathering, exploring alternatives, and assessing product fit [2], [11]. Search engines and provider websites are key information touchpoints, especially for B2B customers. In SaaS, the product's landing page often forms the critical first impression, where poor design may hinder purchase decisions.

Before purchasing, customers evaluate features and usability. For cloud-based services like SaaS, trials via freemium models play a pivotal role, allowing interaction with touchpoints such as account creation and product testing [8]. Support channels like FAQs and email support also become crucial brand-owned touchpoints during trials [2]. Ultimately, the customer selects the most suitable provider and proceeds to purchase.

Purchase

The purchase stage includes all interactions during the transaction itself meaning that this stage is more temporally compressed compared to prepurchase and post-purchase. In the B2B context, the purchase stage may involve negotiations over the final price and scope, or it may proceed directly to purchase transaction using the

chosen payment method [2]. Additionally, factors like choice overload and purchase satisfaction can influence the experience and impact future loyalty [11].

Postpurchase

The postpurchase stage includes all interactions after the transaction, with the product itself becoming a key touchpoint [11]. Terpoorten, Klein, and Merfeld [2] divide this stage into two phases: *implementation* and *operation*, both of which significantly impact the success of the customer journey. Robust support channels are essential touchpoints in both phases, particularly for customers with limited IT expertise. In the operation phase, additional touchpoints such as regular newsletters and updates also play a vital role in maintaining engagement and satisfaction [2]. These insights align with findings in the SaaS market, where Li and Kumar [5] highlight the importance of close collaboration with customers and continuous support throughout the product lifecycle to ensure effective usage and operation.

3.1.3 SaaS B2B customer journey map

The primary focus of this thesis is the B2B SaaS market. To illustrate this, a general SaaS B2B customer journey map (see Figure 3.1) has been developed based on the findings discussed in this chapter. The stages of the customer journey are depicted using distinct colors: prepurchase in purple, purchase in green, and postpurchase in orange. Key behaviors within each stage are represented by colored rounded rectangles, while the associated touchpoints are highlighted with dotted circles.

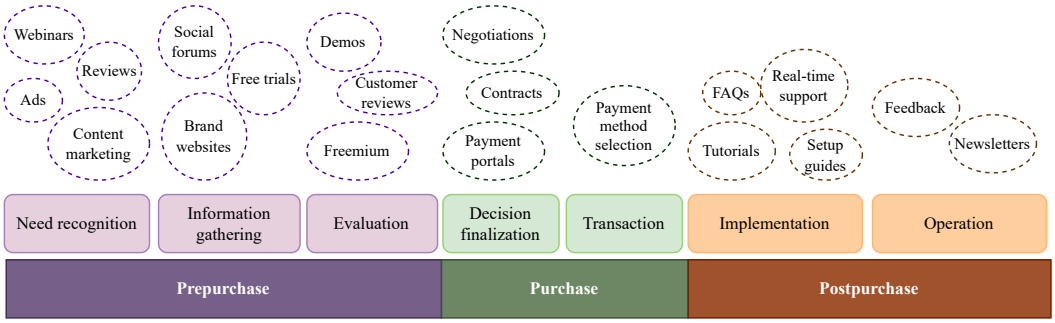

Figure 3.1: Mapping of typical B2B SaaS customer journey based on findings in this chapter

3.2 Onboarding process

This thesis examines SaaS onboarding with a focus on the prepurchase and post-purchase stages (see Figure 3.1). The purchase stage focuses on negotiations and transaction rather than customer education or product adoption. Therefore, it has less impact on onboarding compared to the other two stages.

User engagement is highlighted as critical not only during the initial onboarding phase but throughout the entire customer lifecycle. Onboarding is conceptualized as a continuous process, beginning when first-time visitors access a provider's website or app, extending through the critical early days of implementation, and concluding once the customer has transitioned into a regular user of the product or service [9], [13].

Effective onboarding is essential in today's competitive B2B landscape. Poor quality onboarding can undermine especially SaaS providers due to the customers' ease of switching between providers [9]. As Komandla [14] emphasizes, the challenge lies not only in acquiring new customers but in engaging them to ensure loyalty. Onboarding provides customers with their first impression of the product, making it an opportunity to demonstrate value, address needs, and foster confidence. Moreover, as Strahm, Gray, and Vorvoreanu [12] note, the user's first interaction frames their

future engagement, further underscoring the importance of the onboarding phase as a key aspect of the overall user experience.

The onboarding phase has two primary goals: equipping customers with an understanding of the key features of the product or service and delivering clear value from their purchase.

Providing customer understanding

A core objective of onboarding is equipping users with the knowledge needed to navigate the product effectively. When users fail to understand the product's goals or features, they are more likely to disengage or churn [12]. Effective onboarding reduces the learning curve of customers and minimizes their frustration thereby allowing customers gain confidence in using the product, as emphasized by Komandla [14]. Apostolov [15] set up a questionnaire for churning B2B customers to identify reasons for churn from the case company. Results show that 13% of customers were unable to complete the tutorial business case leading to churn since they did not understand how to start using the software. This underscores the pivotal role of clarity and user education during onboarding phase to ensure a positive user experience.

Providing customer value

Beyond understanding the product, customers must perceive clear benefits early in their journey to build satisfaction and loyalty. However, value should not be taken into account only at the beginning of onboarding. Continuous value delivery ensures that customers remain engaged and find lasting utility in the product. Regular interactions foster strong and loyal customer-provider relationships. [9], [14]

Results from questionnaires of churned customers from Apostolov [15] support the signifigance of customer value by pointing out that perceived value plays a critical role in customer retention, with inadequate value delivery being a key factor

driving customers to switch between SaaS providers. The largest group of churned customers (27%) felt they did not achieve the results promised to them during sales.

3.2.1 Onboarding in prepurchase stage

The onboarding process begins even before the customer commits to a purchase, particularly addressing information gathering and evaluation behaviours from Figure 3.1. Poor usability during prepurchase stage can act as a significant barrier, potentially serving as a deal-breaker for customers. As noted by Terpoorten, Klein, and Merfeld [2], customers encountering usability issues during a trial are likely to assume that the product contains further bugs, leading to diminished trust and disengagement.

To prevent this, providers can focus on establishing credibility and positioning themselves as trusted partners. Komandla [14] emphasizes the importance of offering educational materials, such as blog posts, webinars, and case studies, in building trust during the prepurchase stage. These resources not only help customers understand the product or service but also demonstrate the provider's expertise, encouraging long-term engagement.

3.2.2 Onboarding in postpurchase stage

Once the customer has convinced enough to commit a purchase, the postpurchase onboarding becomes critical in shaping customer attitudes and experiences towards the provider and the product. Quality onboarding in this stage is essential to ensure that the customer can begin using the product effectively and see its value quickly [13]. Weber [9] underlines that neglecting onboarding during this period increases the risk of customer churn, as customers may struggle to understand the product or feel unsupported.

Compared to B2C, B2B SaaS products often present unique challenges due to their complexity. Customers need to navigate steeper learning curves, not only to understand how to use the product or service, but also to discover how it can generate value for their organization [9]. One effective strategy for initial postpurchase onboarding is the "quick win" approach, where the focus is on helping customers achieve a specific core benefit early on [9], [12]. For example, in the case of HubSpot, a quick win might involve setting up basic marketing automation to demonstrate immediate value. Similarly, Strahm, Gray, and Vorvoreanu [12] illustrate the effectiveness of introductory features, such as a welcoming badge for new users in an educational app, to help users engage with the platform in an authentic and rewarding way.

3.3 Onboarding elements

This thesis follows the framework proposed by Cascaes Cardoso [13] and considers the onboarding process to contain four elements: *statement of purpose, user identification, informational support,* and *conversion event*. Each of these elements plays a distinct role in onboarding new users effectively.

- *The statement of purpose* is the first and most crucial element in the onboarding process. When new users access a website or app for the first time, it is essential to provide a clear explanation of the product or service's core features and the value it offers. [13] This clarity reduces user confusion, establishes expectations, and helps new users understand how the product fits into their needs or goals. Without a clear purpose, users are more likely to abandon the product or service in search of alternatives.

- *User identification* involves collecting and registering user data, such as email addresses, names, and preferences, to create a personalized user account. This

step enables service providers to monitor user behavior and tailor their experience. [13] It is often the final step of the first interaction with a product, and successful execution can ensure that users see the value in proceeding.

- *Informational support* is the guidance provided to users to help them understand how to use a product's features and mechanics. The goal is to make the learning process seamless and engaging while minimizing cognitive load. [13] Informational support is not limited to onboarding since customer need constant support to enable long-term success with the product.

- *Conversion event* represents the critical point where a user transitions from being a visitor to becoming an engaged and active customer [9]. For example in SaaS, this can mean that user decides to purchase the product after a free trial or upgrades their subscription from free to premium.

Table 3.2: Onboarding patterns recognized from the literature grouped by the according onboarding element

Element	**Onboarding patterns**
Statement of purpose	Warm welcome messages, tailored follow-ups, customer milestones [14]
	Motivational graphics and visual materials illustrating progress and goals [9]
User identification	Introductory welcome badges [12]
	Forums and online communities [14]
Informational support	Step-by-step instructions, FAQs, video tutorials, interactive demo sessions [2], [14]
	Instructional text, tours, progress bars, interactive tutorials [12]
	Tooltips, inline hints, pop-ups, documentation [13]
	Visual materials [9]
	Regular updates and newsletters [2]
Conversion event	Interactive product tours, progress bars, rewards, badges [2], [9], [12], [14]
	Quick wins showcasing core benefits [9]

3.4 Onboarding patterns

The onboarding patterns identified from the literature are summarized in Table 3.2. They are also categorized based on the four onboarding elements outlined by [13]. The importance of personalized communication is highlighted by Komandla [14] especially as a means to effectively orieantate key features of the product for the user maximizing the value derived from the product. For instance, welcoming messages present an opportunity to quickly orient new users by introducing key features or offering tailored experiences to maximize the value derived from the service.

Additionally, maintaining engagement through ongoing communication, such as regular updates or newsletters, ensure that customers stay informed about new features but also continue to derive value from the product [2]. Another critical strategy for fostering user engagement is community building. Forums or online communities provide users with a platform to share experiences, seek advice, and interact with other customers, as noted by Komandla [14]. This sense of belonging can significantly enhance user satisfaction and loyalty.

Interactive elements, in particular, have the dual advantage of enhancing user understanding while also making the onboarding process more engaging. Komandla [14] and Strahm, Gray, and Vorvoreanu [12] suggest using interacitivty such as product tours, guided setup processes, or gamification elements like progress bars, rewards, and badges. Weber [9] notes that people comprehend visual materials more easily, indicating that the use of motivational graphics helps customers comprehend information more efficiently and stay motivated during onboarding. These methods make onboarding more enjoyable and motivate users to explore the product more thoroughly.

3.5 B2B SaaS onboarding process map

To summarize and conclude this chapter, a mapping of the SaaS B2B customer onboarding phase (see Figure 3.2) has been created based on insights from the literature. The figure illustrates the scope of the onboarding process in this thesis, encompassing the prepurchase and postpurchase stages of the customer journey. Touchpoints from onboarding research are highlighted with pink to illustrate the difference from Figure 3.1. The need recognition behaviour in prepurchase stage is not included since the assumption is that the user has already found the product when they start the onboarding process.

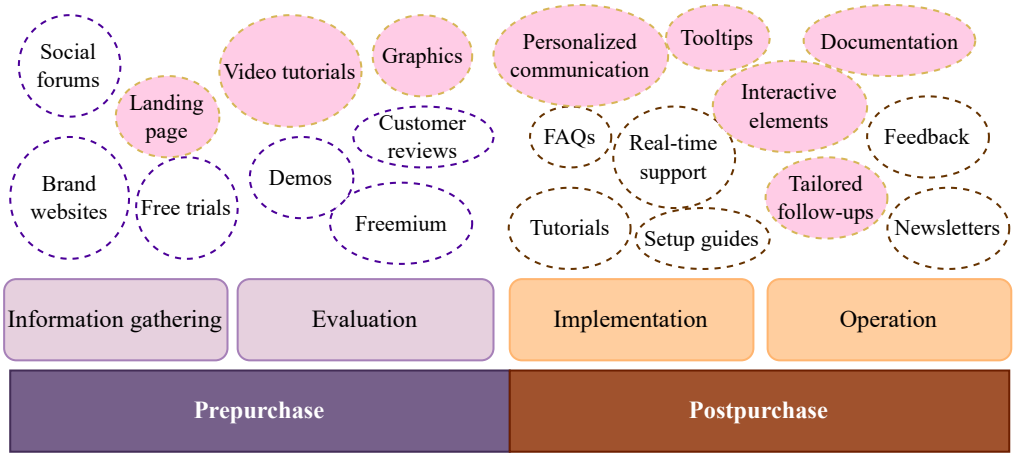

Figure 3.2: Mapping of B2B SaaS customer onboarding process

4 Gamification

This chapter explores gamification and its impact on user engagement thereby addressing RQ2. The latter part of the chapter examines the correlation between gamification and SaaS business establishing a foundation for the empirical study of this thesis.

Gamification has been defined in various ways in the literature. However, it is important to distinguish gamification from transforming an entire product into a game. Unlike full-fledged games, gamified applications do not seek to fully immerse users in a game-like experience. Instead, they integrate selective game design elements while allowing users to seamlessly return to the app's core functionality. The primary goal of gamification is to enhance engagement and motivation [16].

This thesis follows the definition of gamification as *the use of game design elements in non-game contexts* [17], [18]. To develop a clearer understanding, the two key terms in this definition are discussed in more detail.

4.1 Game design elements

In this thesis, game design elements refer to the fundamental components used in creating games and gamified experiences. These elements include mechanics, rules, goals, feedback systems, and user interactions. They serve as the building blocks that shape player experiences and define how a game functions. Werbach and Hunter [16] compare game design elements to legos, versatile building blocks that can be

assembled in various ways to create different structures. Similarly, the same set of game design elements can be adapted to develop a wide range of products and games, each serving distinct purposes and objectives.

The game design elements that have the potential to affect user engagement are identified from the literature and listed in Table 4.1. To provide a clearer understanding of these elements and their impact on user engagement, we adopt the classification proposed by Schulte [19] and divide them into two categories: Forward Gamification, which motivates users to continue an activity, and Reward Gamification, which reinforces behavior through outcomes and achievement-based reasons.

Table 4.1: Game design elements identified from the literature grouped by their gamification category (*FG = Forward Gamification, RG = Reward Gamification*)

Category (FG/RG)	**Game Element**	**Sources**
FG	Narrative	[16], [19]
FG	Challenge	[18], [19]
FG	Progress	[18], [19]
RG	Leaderboards	[16], [18], [19]
RG	Levels	[16], [18], [19]
RG	Points	[16], [18], [19]
RG	Badges	[12], [16], [19], [20]
RG	Textual Feedback	[19]
RG	Real-time Notifications	[18]
RG	Music	[20], [21]

Forward Gamification

The game design element *narrative* refers to an ongoing and consistent storyline [16]. A well-crafted narrative enhances user experience by providing a sense of purpose making users feel that their actions contribute to a larger, meaningful goal. When users recognize the significance of their efforts, they are more likely to remain engaged and motivated. To maximize effectiveness, narratives should be structured as concise, directive statements that emphasize importance and be strategically placed at key action points. [19]

The element *progress* indicates the growth and development of the player and is particularly crucial for maintaining user engagement [16]. Visualizing progress through textual indicators (e.g., percentages) or graphical elements (e.g., progress bars) plays a vital role in sustaining motivation. To reinforce engagement, progress indicators should be consistently displayed, positioned near relevant actions, and designed with accessibility in mind. Progress is often paired with the *challenge* element, encouraging users to maximize their achievements and fostering continuous participation. [19]

Reward Gamification

Most identified game design elements fall under reward gamification. While progress is categorized as a forward gamification, elements used to track user progress, such as *leaderboards*, *levels*, and *points* primarily reinforce short-term activity rather than long-term system use. These elements promote healthy competition while providing clear indicators of advancement. However, as noted by Werbach and Hunter [16], some users may find competition discouraging, leading to decreased motivation. To mitigate this, they emphasize the approach that a gamified language app Duolingo follows. It includes opt-out options for competitive elements, such as leaderboards, to accommodate different user preferences.

Points serve as a motivational tool by linking their accumulation to desired activities, providing users with a sense of achievement. *Badges*, in contrast, add contextual meaning to points. They function as a visual and effective reward mechanism, symbolizing accomplishments. When made public, badges can foster social incentives for continued participation and group identification. Unexpected badges, in particular, can surprise users and elicit positive emotions. [16]

User engagement is further enhanced through timely feedback mechanisms. Providing feedback on a user's progress toward goals or alerting them to significant milestones is essential [16]. Feedback can be delivered in various ways. For instance, *music* enhances the overall user experience and can effectively signal whether actions are correct or incorrect. However, it should be used carefully to prevent user irritation [21]. *Textual feedback* offers deeper contextual insights for performance evaluation, helping users identify areas for improvement. Color-coded feedback (e.g., green for positive outcomes, red for negative ones) enhances interpretability [19]. Lastly, *real-time notifications*, such as emails or push alerts, maintain engagement by providing immediate feedback or reminders, effectively reinforcing user actions [18].

4.2 Non-game contexts

Effective game design leverages human psychology to sustain engagement. This makes gamification a powerful tool for enhancing motivation and user engagement beyond the gaming world. In Figure 4.1, Werbach and Hunter [16] illustrate the relationships between the four most prominent non-game contexts:

- *Internal gamification* enhances productivity within organizations, such as Accenture's security training program, which increased completion rates through badge-based achievements.

- *External gamification* enhances customer engagement by leveraging user motivation. For instance, the Record Searchlight newspaper introduced a badge system for online article comments, which increased session duration by 25%.

- *Behavior-change gamification* supports long-term habit formation, such as the SuperBetter app, which engages users in goal-driven tasks to improve mental well-being.

- *Crowdsourcing gamification* motivates contributions in large-scale projects, such as Kaggle's data science challenges, where users earn rewards for solving complex problems.

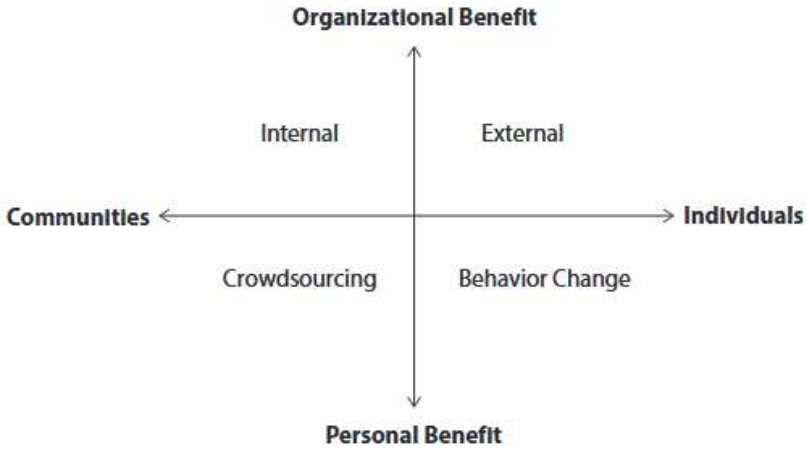

Figure 4.1: Relationships between non-game contexts [16]

What unites all these applications is their focus on real-world goals. Unlike traditional games, where players immerse themselves in fictional worlds, gamification in these contexts encourages users to engage more deeply with real-world tasks, services, or communities.

4.3 Game development and SaaS

Game development and SaaS business model share many similarities. Just as in SaaS industry, where switching between providers is easy, the gaming industry also experiences high user turnover. As noted by Petersen et al. [21], mobile games, in particular, face substantial churn rates within the first few minutes of play. Players can quickly abandon a game if it does not meet their expectations. Factors such as poor usability, low-quality trial experiences, and negative reviews significantly influence this decision and quickly develop a negative reputation [20], [22].

Just as usability has become a key competitive advantage in the gaming industry, it is equally crucial in SaaS. Well-designed usability benefits both users and providers by improving satisfaction, increasing productivity, and reducing the need for customer support and training [22]. As Schulte [19] highlights, implementing game design elements in real-world contexts can evoke emotions similar to those experienced in games, ultimately increasing motivation and long-term user engagement. Game design techniques offer valuable strategies for enhancing user engagement and gaining a competitive advantage [16].

The rise of the product-led approach as the dominant growth model in SaaS can be compared to the widespread adoption of the Free-to-Play (F2P) revenue model in the mobile gaming market. F2P games are offered for free, generating revenue through in-game advertisements and purchases [21]. Both approaches face similar challenges, such as discoverability issues due to market saturation and the importance of an effective onboarding phase.

4.4 Gamification in SaaS onboarding

Since SaaS onboarding primarily aims to drive customer engagement and encourage feature adoption, it aligns most closely with external gamification, as shown in Figure 4.1. A key characteristic of games is having a clear, visible goal supported by a logical structure to achieve it [17], [22]. To support this idea, Schulte [19] argue that any system designed to achieve a goal should incorporate gamification. He justifies this by noting that if users do not see their actions as meaningful, their motivation to continue decreases, which may ultimately lead them to abandon the system. In the context of SaaS onboarding, these goals are centered around providing users with understanding and value, as discussed in Chapter 3. Gamification has the potential to assist with both of these objectives.

Providing understanding through gamification

As Werbach and Hunter [16] highlight, the human brain is naturally wired to enjoy experiences that games provide. Games stimulate the dopamine system, leading to feelings of pleasure and satisfaction, which in turn motivates learning and fosters user engagement. Furthermore, games provide an opportunity for users to relax and unwind from the stress of their daily lives [21]. Komandla [14] supports the correlation between games and SaaS onboarding by emphasizing that adding interactivity to the process can transform a potentially overwhelming learning curve into an engaging and informative journey.

The increased diversity of players has pushed modern games to implement clear, intuitive guidance that enables users to start playing with minimal instructions. New players often churn within the first few minutes of gameplay, making seamless onboarding experiences essential [22]. However, excessive guidance (e.g., scripted tutorials) can sometimes reduce player autonomy and engagement, leading to lower motivation. Instead, more subtle onboarding techniques, such as graphical overlays,

allow users to explore interfaces independently while maintaining their engagement and sense of autonomy [16], [20].

Providing value through gamification

Werbach and Hunter [16] discuss the power of gamification to transform mundane yet necessary tasks into engaging activities. The goal is not to trick users into tolerating these tasks but to help them find meaning and satisfaction in the activity. While learning a new SaaS product may seem dull to some users, it is a crucial part of their experience, and game design elements can help make this process feel lighter and more enjoyable.

A usability study conducted by Barnett, Harvey, and Gatzidis [20] reveals that in games, understanding comes from guidance that enables players to effectively utilize all available information, thereby enhancing usability. Additionally, Werbach and Hunter [16] note that gamification can motivate users to engage with the goals set by the company, or the SaaS provider, because users genuinely enjoy the experience, rather than feeling forced to do so. Both of these aspects highlight the potential of gamification to increase the value provided to customers in SaaS products.

4.5 Summary

As this chapter has shown, the gaming industry and the SaaS business share similar challenges, particularly in user engagement and retention. However, while games rely on entertainment-driven engagement, SaaS products require engagement for usability and long-term adoption. This distinction highlights why gamification can be valuable in SaaS to provide structured motivation, reduce friction in onboarding, and foster habit formation.

The correlation between the findings from SaaS and game design demonstrates the potential that gamification holds for enhancing onboarding. Therefore, the em-

pirical part of this thesis focuses on proposing an approach that integrates game design elements into SaaS onboarding to improve both user understanding and perceived value.

5 Gamified onboarding in SaaS: B2B Case examples

This chapter investigates how game elements can be implemented into the onboarding processes of SaaS products. To demonstrate this in practice, three B2B SaaS products were selected as case examples: *Cuckoo, ProdPad*, and *Todoist*.

The selection was guided by several criteria. For practical reasons, each product had to offer either a free tier or a time-limited free trial that provided full access to the onboarding experience without requiring subscription. Additionally, the selected products had to visibly incorporate game elements identified in Table 4.1, ensuring a meaningful connection to the findings from the literature.

To provide a broader perspective on gamification in SaaS, the chosen products represent different business domains within the B2B landscape: *wellbeing, product development*, and *task management*. Furthermore, to ensure an authentic first-time user experience, all selected products were new to the researcher at the time of testing. Finally, the number of case products was intentionally limited to three to allow for a deeper qualitative analysis of each onboarding experience. Moreover, while exploring other SaaS products, it became evident that similar gamification patterns were present across many platforms. Therefore, including additional products would likely have led to saturation without significantly increasing the analytical value.

5.1 Cuckoo

Cuckoo is a wellbeing application designed to support employees by promoting regular breaks and making those breaks an enjoyable and integrated part of the workday. The app requires credit card information but offers a 14-day free trial during which it aims to demonstrate its value and encourage users to subscribe. [23] To support this goal, Cuckoo incorporates several game elements into its onboarding experience.

One such element is *narrative*, which is introduced through an initial questionnaire. This step gathers background information to create a personalized break routine (see Figure 5.1). The narrative component explains the significance of regular breaks and outlines the benefits users may experience. This storytelling approach provides users with a sense of purpose, helping sustain engagement from the very beginning. Moreover, by establishing a tailored routine early on, the onboarding process becomes more seamless, lowers the entry barrier, and offers users an immediate *quick win* to showcase the app's value.

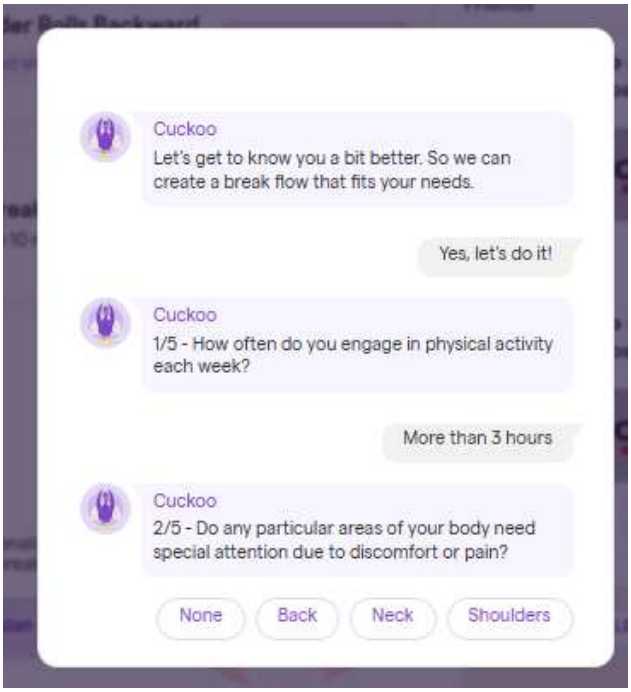

Figure 5.1: Cuckoo's starting questionnaire prompted for the user [24]

Cuckoo enhances user engagement through visual *progress tracking* presented as an interactive map that illustrates the user's current level and ongoing training streak as a narrative journey for their avatar. This approach replaces conventional text or numerical summaries of progress with a rich, intuitive visualization that reduces effort from the user by providing complex information at a glance. The map integrates multiple data points, such as level, accumulated points, daily goals, and streaks, into a single, engaging element, reducing cognitive effort while increasing motivational appeal (see screenshot in Figure 5.2).

Beyond visualization, Cuckoo employs reward-based gamification through a system of *points* and *levels*. Users earn points by completing daily breaks and logging wellness activities, which contribute to leveling up. Consistent engagement over consecutive days builds a training streak, designed to reinforce daily usage and habit formation. These gamification techniques provide immediate, continuous feedback, encouraging sustained behavioral change and re-engagement (see screenshot in Figure 5.2).

The *social dimension* is integral to the Cuckoo experience. Users can form groups, invite friends, and earn achievement *badges* by completing milestone activities, such as logging their first break (see screenshot in Figure 5.3). These achievements are publicly visible within a user's social circle, enabling peer encouragement through comments and recognition. Additionally, users can join community-wide challenges with motivating real-life rewards (e.g., gift vouchers) or initiate custom challenges within their groups (see screenshot in Figure 5.4). These social features promote friendly competition and community-driven motivation which are key pillars of effective gamification that enhance both user retention and engagement.

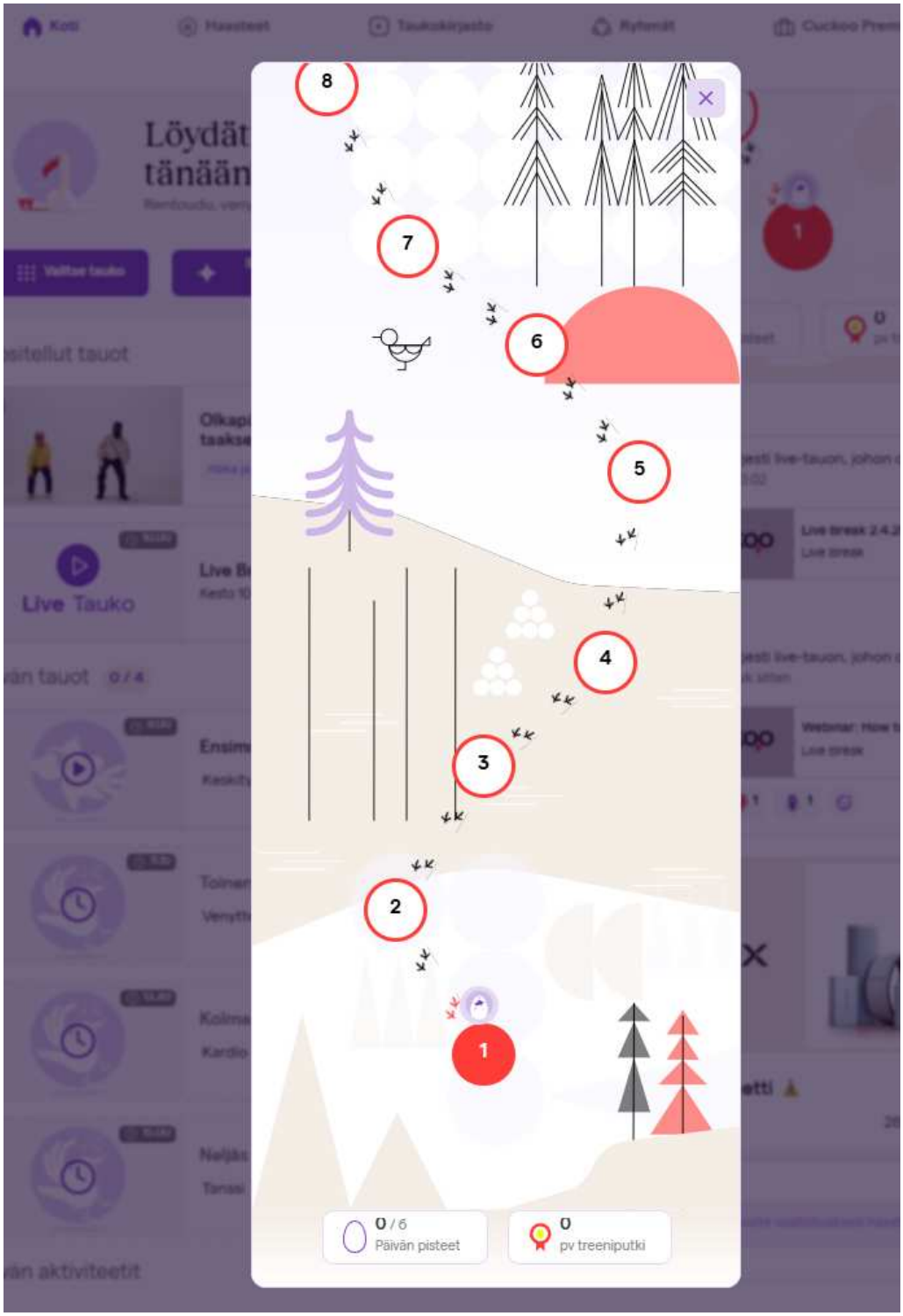

Figure 5.2: Gamified progress map in Cuckoo [24]. Avatar shows the current level of the user while daily points and training streak are located at the bottom of the map.

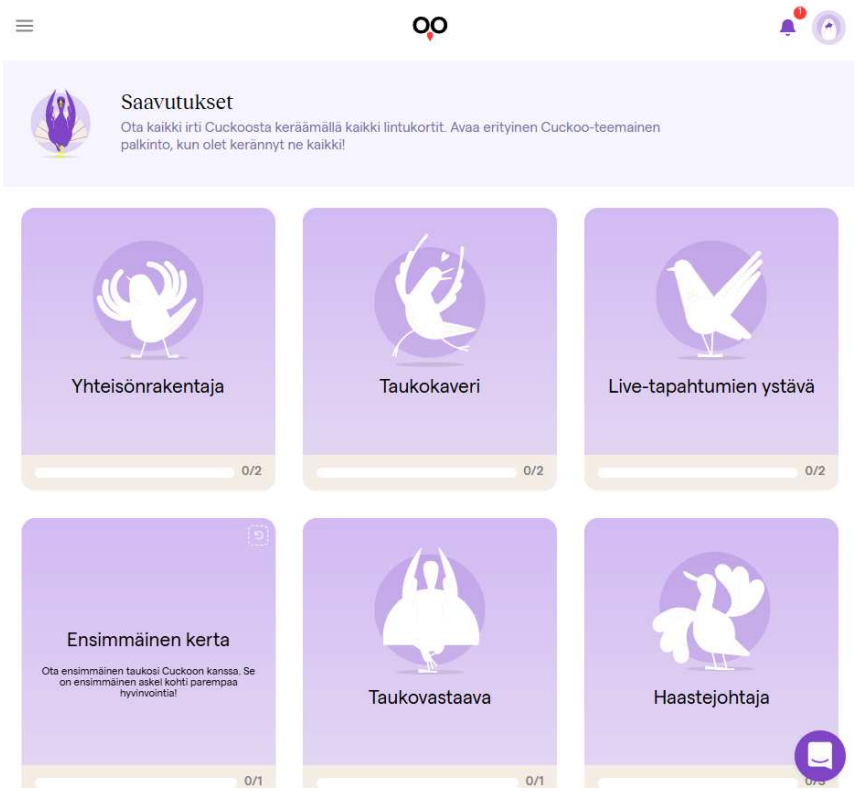

Figure 5.3: Rewards system in Cuckoo with achievement badges [24].

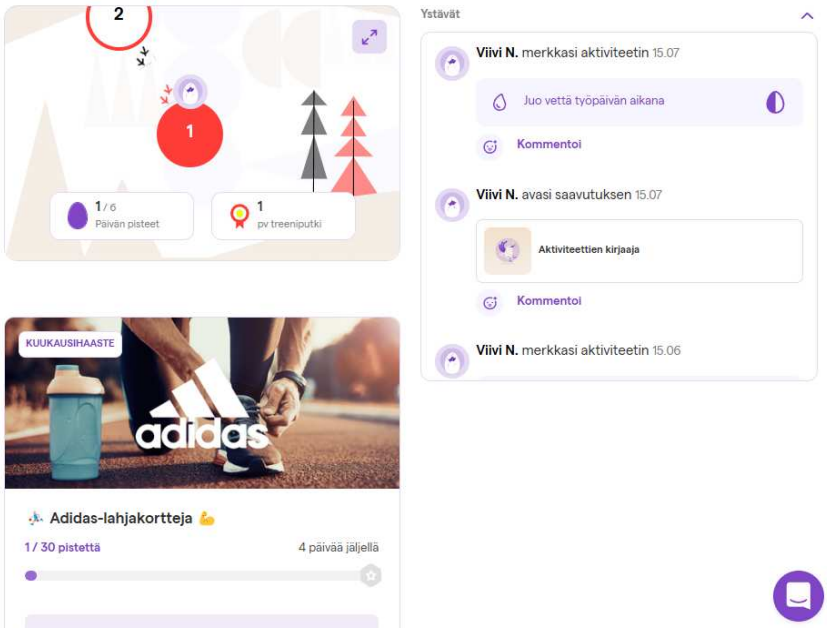

Figure 5.4: Monthly community challenges and friend group activities in Cuckoo [24].

5.2 ProdPad

ProdPad is a product management platform designed to streamline product development by integrating roadmaps, ideas, and user feedback into a unified platform. Unlike Cuckoo, ProdPad offers a 14-day free trial without requiring credit card information from the user, allowing them to explore the platform's features before committing to purchase [25].

The platform incorporates several gamification techniques to promote user engagement, particularly during the onboarding process. A key example is the onboarding task checklist, which introduces users to core features while offering reward-based gamification in the form of *additional trial days* for each completed task. Beyond rewards, the checklist also functions as an instance of forward gamification by embedding a subtle *narrative* into the onboarding flow. This narrative structure helps give users a sense of direction and purpose, reinforcing the value of each completed step.

Progress indicators play a complementary role in enhancing user motivation. The checklist pairs textual task descriptions with a visual progress bar, while completed tasks are clearly marked using checkmarks and strikethroughs. These visual cues provide immediate feedback, reinforcing a sense of progress and accomplishment. As users move through the onboarding flow, these elements contribute to a positive feedback loop, assuring them that they are making meaningful progress and encouraging continued exploration. A screenshot of the onboarding checklist and its gamified components is shown in Figure 5.5.

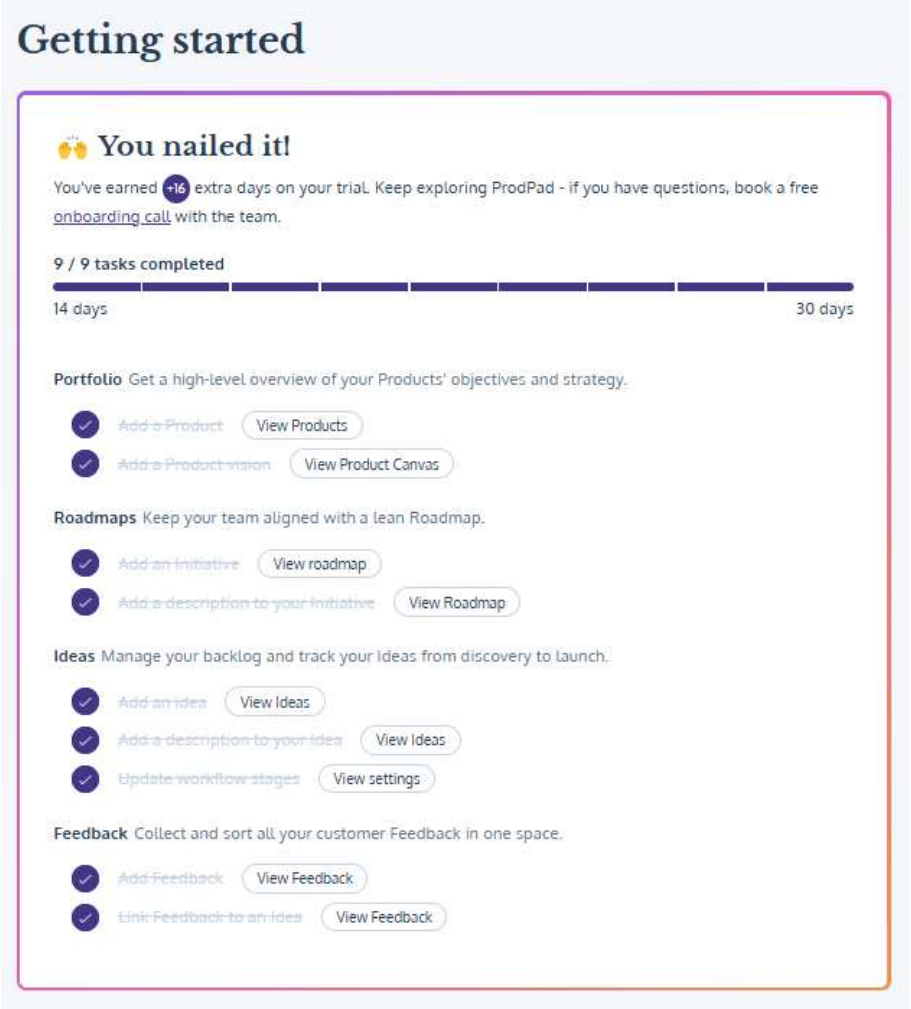

Figure 5.5: ProdPad's fully completed onboarding checklist with a maximum of 16 earned extra trial days [26]

In addition to the checklist, ProdPad offers guided tours for each of its three main modules: Roadmaps, Ideas, and Feedback (see Figure 5.6). These tours serve as the app's *quick wins* by providing concise, interactive step-by-step instructions that help users quickly understand and engage with core features. User autonomy is respected by making the tours entirely optional and allowing users to proceed at their own pace. This non-forced approach ensures that users receive support when needed without being overwhelmed, thus supporting a more personalized and user-friendly onboarding experience.

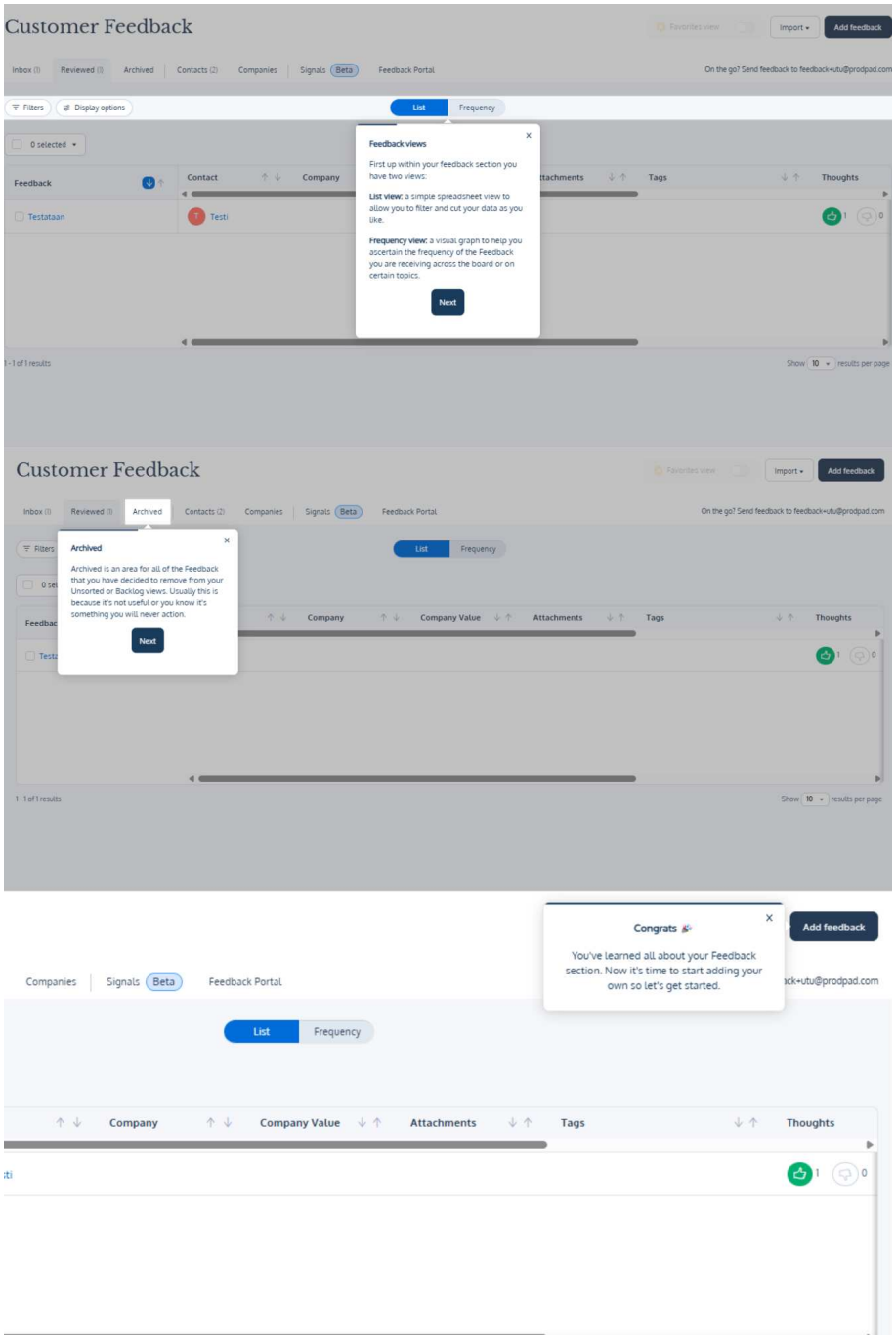

Figure 5.6: First steps from the guided tour of the Feedback module in ProdPad [26]

5.3 Todoist

Todoist is an organizational app aimed at streamlining daily workflows through task, project, and time management tools. Unlike the previous case examples, Todoist follows a slightly different pricing model by offering a free tier that grants users indefinite access to core features with certain limitations [27].

Immediately after account creation, Todoist employs a *quick win* strategy by auto-generating the user's first task: installing the app across all devices. This not only demonstrates the app's primary functionality, task completion, but also subtly promotes additional use cases, such as mobile integration and email synchronization. A screenshot of the auto-generated task is shown in Figure 5.7.

Gamification in Todoist is primarily implemented through *progress tracking*, most notably via the Todoist Karma system. This system functions as a *points-based* mechanism designed to reinforce productive behaviors. Users earn Karma by completing tasks, meeting deadlines, and utilizing advanced features, while failing to complete tasks on time results in point deductions. As Karma accumulates, users can *level up*, offering a sense of achievement and long-term engagement. An overview of the Karma system is provided in Figure 5.8.

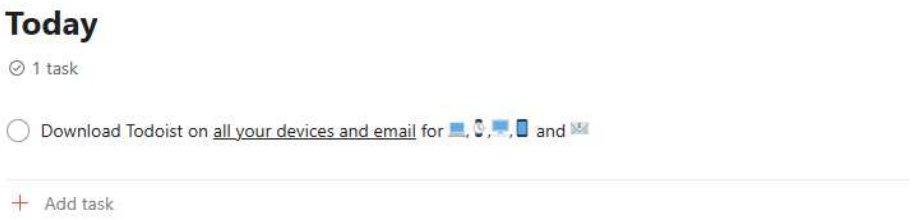

Figure 5.7: The initial task generated after account creation in Todoist [28]

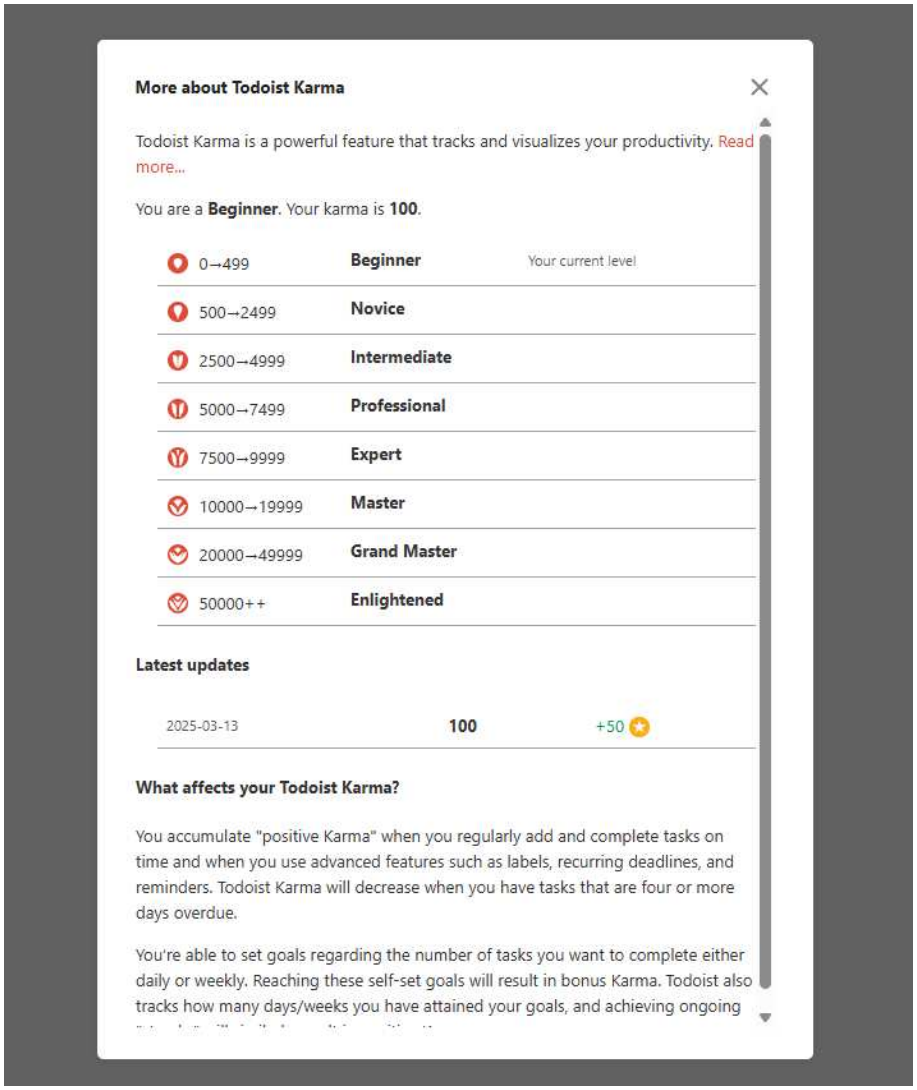

Figure 5.8: Overview of Todoist Karma system [28]

In addition to Karma, Todoist incorporates daily and weekly *goals* based on the number of tasks completed. Upon reaching these goals, the app triggers *visual celebrations* to delight the user and reinforce a sense of accomplishment. As part of the app's *social* gamification features, users are also encouraged to share their achievements on social media platforms, promoting external recognition and motivation.

With continued engagement and consistent goal completion, users can build streaks, which are visually represented through historical *trend graphs*. Further-

more, both Karma progression and goal tracking are supported with visual aids, such as *circular progress bars* and intuitive icons, providing at-a-glance feedback on performance. These gamified elements are illustrated in Figure 5.9.

To maintain user autonomy and ensure that gamified content is not a distraction, Todoist allows all game elements to be customized or disabled in the settings. Users can enable or disable Karma, adjust their daily and weekly goals, and decide whether they want to see visual celebrations.

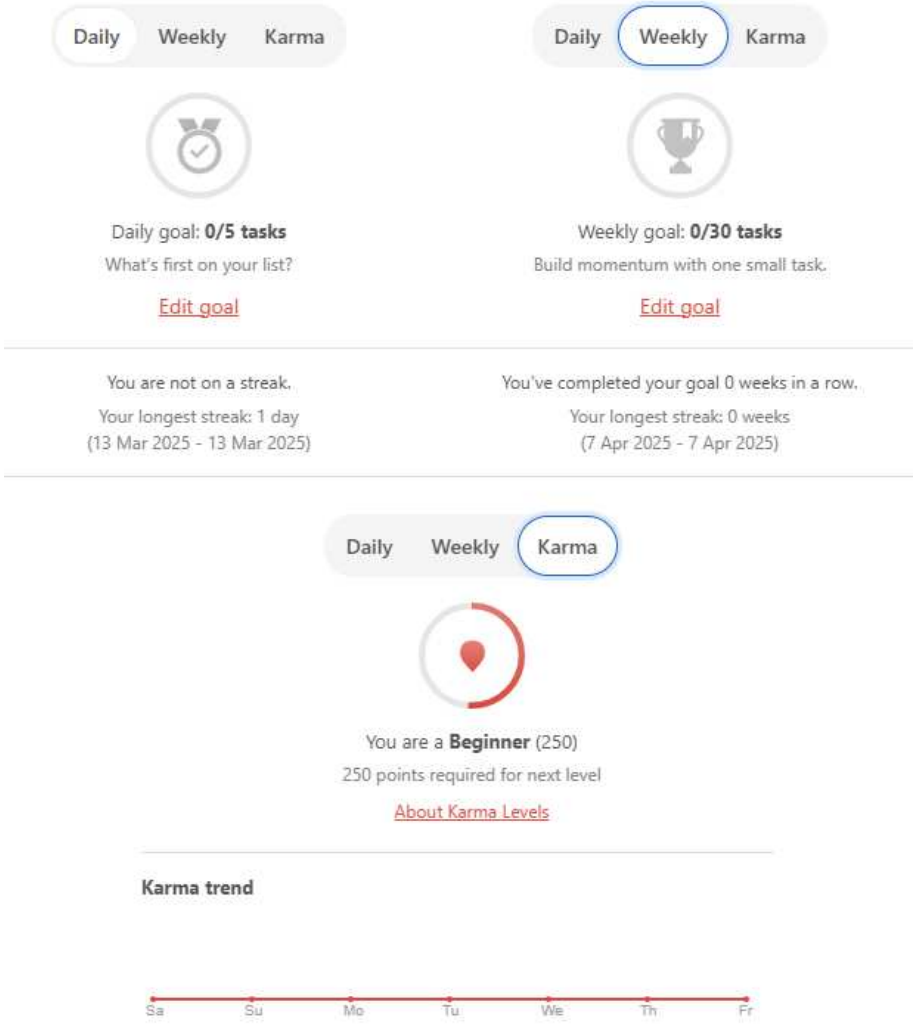

Figure 5.9: Todoist progress indicators for daily and weekly goals and karma level. The historical trend is located at the bottom. [28]

5.4 Summary

As shown in Table 5.1, although the case products are from different B2B domains, each incorporates the game elements in distinct ways. This underscores the versatility of gamification in B2B contexts. For instance, the narrative element is implemented quite differently in Cuckoo compared to ProdPad, illustrating the adaptability of game elements. These implementations align with both forward and reward gamification strategies, supporting early user engagement, habit formation, and value delivery.

A common theme across the cases is the emphasis on preserving user autonomy, particularly through optional tutorials and non-intrusive game elements. An exception to this is Cuckoo, where gamification is deeply embedded as a core aspect of the overall user experience, rather than an optional enhancement. Furthermore, the social engagement features in Cuckoo and the competitive dynamics of Todoist's Karma system highlight the role of emotional and peer-driven motivation in sustaining long-term user engagement.

Table 5.1: Comparison of gamification elements in case products

Game Element	**Cuckoo**	**ProdPad**	**Todoist**
Narrative	✓	✓	–
Points	✓	–	✓
Badges	✓	–	✓
Levels	✓	–	✓
Progress Indicators	✓	✓	✓
Feedback	✓	✓	✓
Social Features	✓	–	–

While this chapter has focused on the feature-level implementation of gamification, the following chapters will explore how real users perceive and interact with game elements during onboarding. Among the presented case products, Todoist was selected as the primary focus for user interviews due to its accessibility. Specifically, its rich set of gamification features, availability of a free plan without requiring credit card information (unlike Cuckoo), and intuitive onboarding flow made it a practical and inclusive choice for recruiting participants from various B2B-related fields.

6 User interviews on gamified onboarding

This chapter briefly outlines the interview process before moving on to the analysis. The empirical part of this thesis followed a format inspired by Strahm, Gray, and Vorvoreanu [12], combining interaction with a case product and reflective questioning. The brief independent testing session aimed to demonstrate the onboarding concept and gamified elements in practice before moving on to the interview questions. This session also aimed to ease participants into the process, encouraging more natural expression of their thoughts before beginning the formal interview questions.

Since the interviews aim to provide required data for answering RQ3 strongly related to user experiences, a semi-structured interview was chosen for the interview part. This data collection method allows gathering participants' personal perspectives while giving the researcher the freedom to explore related experiences that may emerge during the flow of the interview [29].

6.1 Participants

Participants were selected based on their alignment with a B2B user profile, lack of prior experience with the case product, and general confidence in independently exploring a new tool. Participants were chosen to reflect a range of professional

roles and age groups, ensuring diverse perspectives. In total, seven participants were interviewed and an overview of their demographic information is provided in Table 6.1. The sample size was considered sufficient, as additional interviews would likely have led to thematic saturation [29].

Table 6.1: Participant demographic information

Participant	**Field of expertise**	**Age (years)**
P1	Software Development	24
P2	Accounting	25
P3	Construction	29
P4	SaaS	49
P5	IT Consulting	24
P6	Human Resources	42
P7	Marketing	40

6.2 Interview structure

Interviews concentrated on exploration and thoughts on onboarding of *Todoist*, one of the case SaaS products discussed in Chapter 5. The goal of this thesis is not to provide insights on improving the onboarding of the case product but it works as a demonstrative tool.

Each interview lasted approximately 60 minutes including the introduction and wrap-up. Any preparation was not required from the participants. Interviews were conducted and recorded remotely in Finnish via Microsoft Teams and participants were asked to share their screen during the recording. The interviews were divided into three phases to structure the discussion:

Phase 1 – Introduction & Warm-Up

The session began with a brief overview of the study, followed by obtaining the participant's consent to participate and to be recorded. Participants were informed that their data would be handled confidentially and that they could stop the session at any time. Once consent was confirmed, the context was lightly framed with a few warm-up questions related to the participant's prior experience and expectations with digital tools.

Phase 2 – Live Exploration

Participants were provided with a link to Todoist's landing page and given 15 minutes to explore the onboarding flow independently. The study aimed to gather user input on first impressions and therefore the exploration was intentionally kept rather short. Participants were encouraged to think aloud and describe their impressions, decisions, and challenges as they interacted with the app. The researcher could also intervene with prompted questions if participants appeared to overlook relevant elements.

Phase 3 – Discussion & Reflection

Finally, participants were asked reflective questions about their experience, with a focus on user engagement. Semi-structured interviews are designed to be flexible, allowing each session to unfold uniquely based on participant responses [29]. To guide the discussion while maintaining flexibility, an interview guide was developed around five key themes, such as overall experience, gamification, and user motivation. Instead of following the guide rigidly, the researcher ensured that at least one guiding question from each theme was addressed during the session, with additional questions adapted dynamically to the conversation's flow. The complete interview guide, outlining the themes and sample questions, is presented in Appendix A.

Before ending the interview session, participants were asked for basic demographic information. Only the minimal amount of information for the scope of the research was collected: the field of expertise and age. Additional information, such as gender, was not considered relevant to the objectives of the thesis.

7 Analysis of interview findings

The qualitative analysis of the user interviews followed a structure inspired by Adeoye-Olatunde and Olenik [29], involving transcription, open coding, and thematic interpretation. The primary objective was to examine how gamification elements influence user engagement during the onboarding phase of a B2B SaaS product, thereby addressing RQ3.

Immediately after each remote session, the Teams recording was exported and the audio auto-transcribed in Microsoft Word. The researcher then re-watched the video, corrected speech recognition errors, and inserted time-stamped notes describing the on-screen activity. Due to a technical malfunction, the screen recording from participant P2 was not captured; therefore, the transcription and analysis relied solely on the audio file and the researcher's memory.

7.1 Coding scheme

Due to the temporary unavailability of NVivo, open coding was conducted manually using Microsoft Excel. To minimize repetitive work and enhance consistency, the OpenAI o3 language model was used as a pattern-matching assistant. To anonymize the transcripts, all potentially identifying details were removed, after which the model was instructed to detect quotations referencing game elements (e.g., real-time feedback, progress indicators, goals, points, levels) or user emotions, and to propose appropriate code labels. This process provided an initial foundation for the

codebook, which was subsequently reviewed and refined by the researcher. During this review, a new code *C7 Narrative* was added in response to recurring comments about unclear purpose, which were not captured by the original set. After manual refinement, the final codebook included eight codes, as shown in Table 7.1.

Each transcript was re-read, and relevant excerpts were coded using the finalized codebook. These excerpts were later used as supporting evidence when reporting the findings. Additional annotations were added where necessary, and a dedicated column in Excel was used to capture intervention notes.

Table 7.1: Codebook for thematic analysis

ID	**Label**	**Example cues**
C1	Celebratory feedback	Immediate positive reactions triggered by completing an action (e.g. confetti burst, success sound, pop-up).
C2	Progress & goals	Visible indicators of progress such as daily/weekly goals, streak counters, progress bar
C3	Points & levels	Numerical score that accumulates with activity; includes concerns about "point-chasing".
C4	Guidance	Step-by-step tours, contextual hints; comments on wanting or skipping guidance.
C5	User control	Mentions of toggling gamified elements; perceptions of autonomy.
C6	Basic UX	Issues or praise regarding basic usability: sign-up process, language, clarity, pricing, GDPR. Gamified perks seen as secondary to these fundamentals.
C7	Narrative	First-impression telling the *why*: landing-page, templates, autogenerated starter tasks; frustration when purpose is unclear.

7.2 Thematic analysis

To analyze the impact of gamified elements on user experience during the onboarding process, the interview findings are examined through the lens of the four onboarding elements defined in Table 3.2: *statement of purpose, user identification, informational support*, and *conversion event*. This approach provides a structured framework for analyzing user behavior and interactions with key touchpoints across the entire onboarding journey, thereby offering a comprehensive answer to RQ3.

7.2.1 Statement of purpose

Participants emphasized the importance of forming a clear first impression (C6). All seven participants cited a clean and visually appealing user interface as a key factor in generating interest in a new product. P7 noted that with B2B products, it often takes longer to determine whether a tool meets the user's specific needs.

Five participants explored the landing page at the beginning of Phase 2. Visual elements were effective in conveying information and setting expectations. All five watched the demo video and praised the dynamic nature of the webpage:

> *I liked the micro-demos that demonstrated the features.* (P1)

> *It was really nice that there was a demo video that showed the app in practise.* (P6)

> *This landing page is quite impressive, it is not static.* (P7)

In addition to visual design, language accessibility was highlighted as important for understanding the product's value and purpose. P1 and P2 appreciated the ability to read the landing page in their native language (Finnish), noting that not all users are equally skilled in English. This suggests that B2B products should offer language options aligned with the linguistic preferences of their key user segments.

Without this, users may quickly disengage if they do not fully grasp the product's value proposition.

Although participants who explored the landing page generally understood the app's core concept, several users struggled to grasp its purpose once inside the application. The overall flow was unclear, and all participants expressed a need for more guidance when first opening the app:

> *The first view of the app was really empty. Like OK, I have this but what should I do?* (P3)

> *I need more guidance on the big picture and how this builds together.* (P4)

> *Now I felt lost.* (P5)

All participants agreed on the effectiveness of ready-made templates (C7). These were seen as helpful for understanding potential use cases and provided a practical starting point within the app. Concrete examples were especially valuable in reducing feelings of overwhelm and clarifying how the app could be used:

> *With a pre-filled example showing how to use this correctly would help me visualize this better.* (P3)

> *Definetly the ready-made templates. I think they guide the use of the app and spark new ideas how I can utilise this.* (P6)

The interviews highlight the critical role of a clearly communicated purpose in driving user engagement within B2B applications. While narratives and visual cues on the landing page are essential, they must also extend into the first in-app experience. Pre-filled scenarios, light personalization, and micro-demos help users quickly grasp the app's value, making them more likely to engage from the start of the onboarding process.

7.2.2 User identification

Ease of registration was a recurring theme across all interviews (C6). Four out of seven participants stated that if a product cannot be tested for free, they would likely seek an alternative. In addition to offering free trials, features such as minimal registration steps and guest access were considered essential when evaluating new products:

> *If it can be tested right away, maybe even without registration because that kind of B2B products exist also.* (P4)

> *Registration should take only a few clicks.* (P5)

Unlike the B2C market, the B2B environment often involves handling sensitive customer or organizational data. As a result, GDPR compliance and data privacy emerged as critical concerns during the user identification process:

> *I started to think the GDPR aspect right away, what if I use this with my work credentials?* (P6)

Although the study did not specifically focus on the user identification process, the interviews indicated that insufficient privacy protocols are likely to drive users toward competing SaaS providers. One effective strategy for mitigating this is to engage users before requiring them to sign up for example by using interactive demos or sandbox environments. By allowing users to experience the product's value upfront, they may be more inclined to proceed with registration and take the time to review privacy and GDPR related information.

7.2.3 Informational support

Across all seven interviews, participants expressed a strong desire for a brief orientation to the core features of the app (C4). They reported difficulty in knowing where to begin without some form of guided assistance:

...more guidance at the start. (P3)

..a few steps that point me here and explain these features. (P4)

Notably, none of the participants spontaneously noticed the gamification elements, such as the progress bar, daily/weekly goals, or Karma system, until prompted by the researcher. While these elements were viewed positively after discovery, they were largely overlooked during independent exploration:

The progress tracking could have been more clearly displayed because now I missed it. (P2)

I missed these, they were really hidden. (P4)

I tried to search for it because I did notice it in the demo video but not here in the app. (P6)

The option to skip an introductory walkthrough also emerged as important, reinforcing the theme of user autonomy (C5). Participants emphasized the value of being able to control their onboarding experience:

There could be a possibility to skip the introduction at the start. (P1)

...but there has to be an option to skip it because I could have already used this with other email. (P5)

The timing of informational support also affected user engagement. P7 noted that they would be more receptive to a mandatory tour immediately after sign-up, as they were still mentally in "onboarding mode". However, pop-ups introduced later on the onboarding felt more like interruptions. An early, concise walkthrough of key features can prevent confusion and reduce abandonment when initial expectations are not met.

Contextual, real-time notifications placed near interface elements were generally well received. However, their effectiveness diminished significantly when the information was too lengthy or dense:

> *These tips are great at the start when you don't yet know how things work.* (P1)

> *Too much text for me. It is nice that user is guided but I only have motivation to read the titles.* (P7)

This issue was evident with the "Inbox" tab, which nearly all participants found confusing. Although an explanatory tooltip was triggered upon first interaction, most participants dismissed it before fully reading it, leaving the feature's purpose unclear. This was likely due to the multi-paragraph format lacking any visual elements to support textual information. Additionally, P2 and P3 described potential multi-step overlays as overwhelming, suggesting that real-time guidance should be kept lightweight and focused.

Visual guidance was consistently preferred over text. Four of the five participants who explored the landing page watched the entire two-minute demo video, while none completed the corresponding textual explanation. Animated screenshots, icons, and short video clips were seen as more effective at conveying the same information with lower cognitive load:

> *Some kind of "how to get started" video would have been nice when I opened the app.* (P6)

> *I want to see screenshots because I can see if this fits my needs faster than skimming through marketing texts.* (P7)

The interviews indicate that informational support is most effective when provided immediately after the user opens the app for the first time. In other words,

while they are still mentally prepared to learn. To maintain user autonomy and motivation, such guidance should be optional and concise. To avoid cognitive overload, information should be supported with visual elements that demonstrate practical usage. When implemented under these conditions, forward gamification can serve as an effective method for delivering informational support during onboarding.

7.2.4 Conversion event

While forward gamification was prominent in areas like informational support and statement of purpose, reward-based gamification elements were especially relevant in engaging users during the conversion event. Celebratory feedback emerged as a motivating and enjoyable feature that delighted users without requiring extra effort (C1). A few participants even compared the application positively to alternatives, highlighting celebratory feedback as a distinctive strength:

> *Those confetts that appeared after I finishd the first task, I think that if someone would say that they don't like that they would be lying.* (P2)

> *It gave me encouragement that I did something right.* (P4)

> *There was a nice "blub" sound and it gave me a dopamine boost to continue.* (P5)

> *I liked that I didn't need to think anything, I just felt delighted. It simply showed me that I have progressed.* (P7)

In terms of user engagement, progress tracking proved highly effective (C2). This shows that achievements served as motivators by giving users a sense of accomplishment thereby enhancing user engagement:

> *Dashboard showing the personal progress does motivate me.* (P2)

> *I think that showing the amount of onboarding steps I have left would work for me.* (P7)

Tracking personal goals and showing possible streaks (C2) was generally perceived as a positive enhancement to the onboarding experience, as long as the goals remained relevant:

> *If the daily goal would be all tasks from that day instead of certain amount of them.* (P1)

> *I believe that having daily or weekly goals would motivate me to use the app because it would motivate me to progress in work.* (P2)

> *If I lose my streak, it would bother me.* (P5)

However, the points and level system raised concerns about point-chasing and its potential to reduce work quality (C3). Several participants emphasized that in the professional context, the main motivator is the salary and not gathering virtual points. The competitive nature introduced by points and levels was also a source of discomfort for some:

> *Playful competition can also go over-the-top.* (P4)

> *For me it [points and levels] decreases the motivation because I don't like that everything becomes a competition.* (P6)

Although a few participants expressed some optimism about using points and levels in team settings, the overall sentiment suggested these elements may not be well-suited for B2B applications, particularly for individual users.

The quick-win element, implemented in Todoist through auto-generated first tasks (C7), was not successful. None of the participants completed the pre-filled tasks. On the contrary they were seen as inconvenient rather than helpful:

> *Give me a task with my own name and a due date for tomorrow right at the start.* (P5)

> *If the idea is that I must do that, then I definitely won't.* (P7)

Gamified elements such as progress bars and celebratory feedback were seen as positive additions to B2B software in terms of enhancing user engagement. P5 noted that B2B tools often become less user-friendly as they grow more complex, and that gamification could improve the user experience. None of the seven participants expressed a desire to disable gamified elements entirely, but all agreed that the ability to toggle them (C5) was important:

> *I think it is a good thing to include them because surely it motivates some users to complete tasks and use the app.* (P1)

> *In my opinion it is a good thing that they can be disabled because for example elder people might be really uninterested on them.* (P2)

> *It is good to have that option because they can irritate someone very much.* (P3)

Reward-based gamification offers multiple ways to support user engagement during the conversion event. During onboarding, visually displaying progress helps users understand the required steps and confirm that they are on the right track. In contrast, point systems proved more challenging to implement effectively in B2B settings, especially for individual use. The failure of auto-generated tasks highlighted the importance of relevance and clarity in designing quick-win experiences. A short pre-onboarding questionnaire could enable light personalization, ensuring that the quick win is meaningful for each user. Overall, the attitude toward gamification was positive which suggests that these elements can be included by default, as long as users are given the autonomy to adjust or disable them as needed.

7.3 Cross-interview summary

Table 7.2 summarises the distribution of key themes across the seven user interviews, with a checkmark indicating that at least one excerpt from the interview was coded under that theme. All seven codes appeared in no fewer than five of the seven interviews, suggesting thematic saturation and supporting the generalisability of the findings across diverse B2B user profiles.

Among gamification elements, *Points & levels* (C3) and *Guidance* (C4) stood out in all interviews, though that might be influenced by the structure of the interview guide. However, points and levels raised more concerns than optimism among participants due to their competitive nature but also since in the B2B environments salary motivates more than virtual points. On the contrary, all interviewees emphasized the usefulness of contextual guidance and tutorials, particularly when these were non-intrusive and optional, supporting a smooth learning curve. *Celebratory feedback* (C1) was slightly less consistent but still appreciated, reinforcing positive behavior through small but delighting moments of accomplishment.

Progress & goals (C2) was also highly visible in the interviews, suggesting that users value seeing how their actions contribute to meaningful progress. Visual aids like progress bars and relevant task goals helped frame the sense of achievement thereby motivating users. Additionally, *Narrative* (C7), or notably, the absence of it, was coded in every interview, underscoring its relevance to the onboarding experience. Participants often viewed auto-generated tasks as distracting or irrelevant, suggesting that poorly contextualized narrative elements can feel forced rather than helpful. In contrast, ready-made templates were consistently appreciated across interviews for helping users understand the logical flow of the app. As demonstrated in platforms like Cuckoo and ProdPad in Chapter 5, the success of narrative-driven onboarding appears to depend more on how easily users understand it and how well it aligns with the their objectives.

Table 7.2: Cross-interview code matrix (✓= at least one excerpt coded)

Code	**P1**	**P2**	**P3**	**P4**	**P5**	**P6**	**P7**
C1 Celebratory feedback		✓	✓	✓	✓		✓
C2 Progress & goals	✓	✓	✓	✓	✓		✓
C3 Points & levels	✓	✓	✓	✓	✓	✓	✓
C4 Guidance	✓	✓	✓	✓	✓	✓	✓
C5 User control	✓	✓	✓	✓	✓	✓	
C6 Basic UX	✓	✓	✓	✓	✓	✓	✓
C7 Narrative	✓	✓	✓	✓	✓	✓	✓

Basic UX (C6) was mentioned in every interview, confirming that poor overall usability cannot be replaced with gamified elements. The interview analysis showed that gamification can meaningfully enhance user engagement during B2B SaaS onboarding but only when built upon a solid core user experience. Therefore, game mechanics were seen as valuable only when layered on top of a frictionless, otherwise intuitive user interface.

Finally, *User control* (C5) appeared in six out of seven interviews, indicating that autonomy is a critical factor in gamified features. Even though gamification was seen positively, participants stressed the importance of having the option to skip or disengage from game elements that did not serve their immediate goals. When gamification felt mandatory or distracting, it tended to reduce rather than enhance engagement.

In summary, gamification can enhance SaaS onboarding when it is relevant, optional, and aligned with user goals. Effective game elements should prioritize clarity, create small "aha" moments, and help users achieve their objectives quickly and without distraction. However, gamified content can only serve to enhance the onboarding experience, not compensate for a poorly designed core user experience.

8 Conclusion

This thesis aimed to evaluate the impact of gamification on user engagement in B2B SaaS onboarding by addressing the following research questions:

RQ1 What benefits can be achieved with an effective SaaS onboarding phase?

RQ2 How is user engagement maintained within game development?

RQ3 How game elements can enhance user engagement during B2B SaaS onboarding?

8.1 Results

The first research question was addressed through a comprehensive literature review on the SaaS customer journey and onboarding process, presented in Chapter 3. The findings emphasize the complexity of the B2B customer journey and reveal that onboarding begins as early as the initial user interaction during the prepurchase stage. In this context, an effective onboarding phase is critical for success in the highly competitive B2B market. A well-designed onboarding experience establishes a clear sense of purpose, reduces cognitive load through intuitive guidance, and delivers early "quick wins" that demonstrate product value. These elements not only accelerate time-to-value but also foster user confidence and reinforce trust in the SaaS provider's expertise. As a result, effective onboarding reduces early-stage

customer churn, increases the likelihood of product adoption, and lays the foundation for long-term engagement.

The second research question was explored through a literature review on game design practices, presented in Chapter 4. The findings indicate that successful game design maintains user engagement by drawing on key principles of human psychology. Game design elements influencing user engagement can be categorized into two groups: *forward gamification* and *reward gamification*. Forward-oriented elements, such as narrative structures and visual progress indicators, motivate continued interaction by providing users with a clear sense of purpose and visible progress. In contrast, reward-based elements, including points, levels, and social elements such as leaderboards, reinforce desired behaviors by eliciting feelings of achievement. The literature also underscores the importance of preserving user autonomy, particularly in the delivery of guidance and support. Overly prescriptive or forced guidance can diminish user motivation and hinder user engagement.

To address the final research question, semi-structured interviews were conducted with seven B2B users. The findings, analyzed thematically through the onboarding-pattern lens in Chapter 7, revealed that motivation in B2B contexts differs significantly from B2C environments. In B2B settings, external motivators, such as salary and task relevance, dominate, making especially reward-based gamification elements, such as points or levels, more complex to implement. However, gamification can enhance early-stage engagement when layered on top of a strong user experience. Game elements cannot compensate for a complicated sign-up process, unclear interface, or poor overall usability.

The interviews demonstrated that *forward gamification* elements, such as clear narratives, celebratory feedback, and visual progress tracking, were particularly effective. These elements helped users understand what actions to take next and provided an immediate sense of accomplishment. They also improved the perceived

value of the product by helping users understand the broader purpose and structure of the tool. Step-by-step guides and contextual tips ensured that key features were not overlooked, enabling users to better understand the product and realize its value quickly. However, the timing of such guidance proved critical. The most effective moment to deliver informational support was immediately after sign-up, when users remained cognitively in a state to explore and learn about the product.

The analysis also highlighted the value of visual guidance in reducing cognitive overload during onboarding. Participants absorbed information more efficiently through interactive elements, videos, and screenshots than through lengthy text. Long, multi-paragraph explanations were often ignored or misunderstood. One particularly effective strategy for delivering a *quick win* in complex B2B products involved using concrete examples that showcase core features. These examples helped users connect the app's capabilities to their own needs and reduced confusion during initial use.

Overall, gamification was perceived as a positive addition to SaaS onboarding. Several participants noted that even a subtle layer of gamification stood out, particularly in the B2B context, where such features remain relatively uncommon. In cases where competing SaaS products offer comparable core value, well-implemented gamification can serve as a distinctive differentiator, provided it does not interfere with users' actual work tasks.

Moreover, participants consistently emphasized the importance of user control over gamified features. The ability to disable or customize game elements was seen as essential to preserving autonomy and ensuring that gamification enhances, rather than distracts from, the application's core functionality and purpose.

8.2 Study limitations

Due to the scope and time constraints of this thesis, user testing was conducted using a single case product. As a result, the variety of gamification elements experienced by participants was limited. In particular, reward-based gamification elements such as leaderboards, music, and social interaction mechanisms were not included in the evaluation, which may have narrowed the scope of the findings.

Additionally, the user interviews primarily captured participants' first impressions of the onboarding experience. The sessions were relatively short and did not include any longitudinal follow-up to assess how engagement might evolve over time. Consequently, the study did not examine user responses to features such as follow-up emails, progressive gamified experiences, or retention strategies that may emerge after the initial onboarding phase.

It is also important to note that participants did not have a real, task-based need to use the product since their motivation stemmed from participating in the study rather than solving a genuine work-related problem. This lack of organic motivation may have influenced the authenticity of their engagement. Furthermore, the researcher was actively involved in moderating the sessions, introducing a potential risk of observer bias in the interpretation of user behavior and feedback.

8.3 Future research

As gamification in the B2B context remains relatively underexplored, there are numerous opportunities for future research. To address the limitations of this thesis, future studies could investigate the impact of social game elements, such as peer competition, collaborative challenges, and leaderboards, by selecting case products that have successfully implemented these features. This line of research could be particularly valuable, as many B2B SaaS tools are designed for teams rather than

individual users, making social dynamics a critical factor in user engagement.

In addition, to better understand the long-term effects of gamified onboarding, future research could incorporate longitudinal studies that track user engagement over an extended period. Such studies could provide deeper insights into strategies for reducing customer churn, for example through personalized communication methods such as follow-up emails or push notifications triggered by in-app behavior.

Finally, while this thesis employed a qualitative methodology using semi-structured interviews, future work could benefit from experimental approaches such as A/B testing, especially if the objective is to optimize or enhance existing onboarding flows. Controlled testing would enable a more rigorous and data-driven evaluation of the effects of specific gamification elements on onboarding success.

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Appendix A Interview guide

A.1 Phase 1 - Warm-up

- What are you thinking when you hear the word task management tool? Any example products come in mind?

- What motivates you to continue using a new tool after first trying it?

A.2 Phase 2 - Exploration

- Did you notice anything that tracks your progress so far?

A.3 Phase 3 - Reflection & Discussion

Theme 1: Overall Experience

- What did you enjoy or not enjoy during the onboarding process?

Theme 2: Gamification

- Did any parts of the experience feel "game-like" to you?

- What specific elements caught your attention (e.g., points, progress bars, streaks) and why?

- How do you feel about having the option to disable these game-like elements? Would you personally use that option?

Theme 3: Engagement

- Did any of these elements make you feel more engaged or interested in using the app?
- Would the experience have felt different if the gamified elements weren't there?

Theme 4: Motivation

- Do you think these elements would keep you coming back to the app regularly?
- Did the progress tracking or goals give you a sense of accomplishment?
- Does the karma feature motivate you to level up and gain more karma?

Theme 5: Preferences

- Was there anything you'd change or improve in the onboarding?
- Would you personally find this kind of onboarding helpful in other more complex work-related tools?
- Do you prefer more guided onboarding or more freedom to explore?
- Any other comments?