

Enhancement on employee's drive and training and development results through gamification in India

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Abstract - This study aims to investigate how a business enterprise uses gamification to improve the learning and development of its employees. It also discusses how gamification impacts employees' productivity and levels of job satisfaction including job engagement level. Employing exploratory research to identify the factors that affect employee productivity, including gamification, learning and development, and others. Non-probability sampling is done. Authoritative and convenient sampling techniques of non-probability sampling have been used. Primary data of a sample population of 75 employees is collected using an online questionnaire. The findings offer practical insights for policy makers, the business enterprise the dynamic demand, training and development of the employees, paves the way for giving feedback and correction instantly, improves the team building quality and helps in team-building, develops problem solving skills and increases the confidence level along with making the employee think out of box in situations as well as develops coordination of employee increases.

Keywords: drive; game based learning & development; skill development; gamification; employee productivity

I. Introduction

This study delves into the potential benefits of integrating gamification strategies to enhance motivation within the workplace. It examines how game-like elements can be effectively utilized to boost employee engagement and drive, contributing to the achievement of both organizational and individual goals. The influence on intrinsic and extrinsic drive through gamification research. UK-based designer Nick Pelling first coined the term gamification in 2002. The concept in question refers to leveraging game dynamics, such as enhanced user interface design, to streamline and enrich electronic transactions.

This paper aims to investigate the role of gamification in boosting workplace motivation. It begins by analyzing the complex motivational mechanisms inherent in gaming and discusses how gamification components can be adapted to improve task completion and satisfaction in a professional setting. Contrary to skeptics who dismiss gamification as a mere trend, emerging evidence supports the notion that gamified elements can indeed foster motivation in the workplace. This paper synthesizes prior research on gamification to objectively evaluate its impact on motivation, bridging the gap between leisure and labor. It scrutinizes widely adopted gamification features, drawing parallels to their application in professional environments and setting the stage for a broader conversation on how these elements can be leveraged to bolster productivity. The document concludes by outlining the practical and theoretical implications of these insights, acknowledging the study's constraints, and highlighting areas for future inquiry, all of which precede the final summary.

Gamification presents a dual approach to motivation: players may be incentivized through **extrinsic rewards** or propelled by **intrinsic drives**, such as the inherent satisfaction derived from gameplay. Extrinsic motivators, though separate from the actual design of the job, can provide immediate incentives. However, intrinsic motivation is particularly valuable in the workplace as it fosters a self-sustaining drive that diminishes the need for constant managerial intervention. This is due to its enduring nature, in contrast to extrinsic motivators, which may necessitate increased oversight as the need for motivational stimuli grows over time.

Extrinsic motivators are only effective up until the desired result has been attained. For instance, if someone is driven to put in a lot of effort at a task because they hope to be promoted, they will no longer be motivated to put in a lot of effort. In contrast, intrinsic motivators, like an innate interest in a task, can drive a worker to put in a lot of effort for as long as they live. This is evident when it comes to pay raises; although the prospect of a raise may inspire employees, the actual amount is rarely the same since they rapidly acclimate to their new income and perceive it as the standard. Intrinsic motivation, rooted in a person's natural curiosity or enjoyment of a task, can sustain a worker's dedication over the long term. In contrast, extrinsic motivators typically offer a temporary boost, maintaining effectiveness until the specific goal they support is reached.

This analysis suggests a comprehensive approach to applying gamification within modern organizations. It contrasts work, typically driven by external regulations and extrinsic rewards, with play, which is fueled by intrinsic motivation—a concept well-articulated in the literature, such as in Perryer et al's (2016) work in *The International Journal of Management Education*. The paper also addresses the complex interplay between extrinsic and intrinsic motivators, highlighting that they do not simply combine for additive effects. Instead, the anticipation of external rewards can undermine inherent motivation, a phenomenon known as the “crowding-out effect” described by Osterloh and Frey (2020).

For example, the drive to excel in a task may diminish once an extrinsic goal, like a promotion, is achieved, suggesting that intrinsic motivators may offer a more sustainable form of engagement. Hence, organizations that seek to incentivize employees for tasks that are inherently driven (such creativity or information transfer) or that want to boost output without resorting to salary increases or incentives must adopt different tactics. Although it is true that the main goal of playing games is to have fun, the fundamental element of any game is following rules to accomplish a goal, which requires problem solving, engagement, and learning. As such, there are many similarities between playing games and completing tasks related to work; the only possible distinction may be that one is perceived as “fun” while the other is perceived as “work,” suggesting that the two are incompatible. Prensky's assertion that the younger demographic rejects the dichotomy between enjoyment and education may resonate across a broader age spectrum, considering the pervasive integration of digital technology in today's workplaces. This trend suggests a shift in expectations, where the blending of pleasure and professional development is becoming a normative aspect of the modern work environment.

What Drives Gameplay?

Mood Management theory posits that individuals seek entertainment to modulate their emotional state, opting for tranquil experiences when overstimulated and seeking excitement when underwhelmed. Game designers craft experiences that cater to these needs, offering immediate sensory engagement through visuals and sounds, and longer-term motivation through goal-oriented gameplay. This aligns with the PENS model, which suggests a continuous pursuit of fulfillment beyond mere hedonic balance. Cognitive Evaluation Theory (CET), a component of Self-Determination Theory (SDT), further explains that gameplay is driven by the need to fulfill autonomy, competence, and relatedness. These theories collectively provide a comprehensive framework for understanding gameplay motivation, indicating that individuals tailor their game interactions to achieve personal satisfaction and avoid discomfort, guided by the principles of autonomy, competence, and relatedness.

The concept of “play” in the workplace is nuanced, as it inherently involves spontaneity and autonomy. However, when gamification is implemented in a top-down manner to align with managerial objectives, it may conflict with these principles. Unlike voluntary “bottom-up” games, such as joining a fantasy football league, gamification is often introduced by management

without employee input, aiming to make certain game dynamics appealing to employees (Mollick & Rothbard, 2014). In this context, consent does not equate to agreeing to play a game – since the game is the work itself, which is obligatory – but signifies an employee’s active engagement with the goals set by management, as opposed to mere compliance or opposition (Burawoy, 1979; Mollick & Rothbard, 2014).

Research indicates that when employees consent to gamification, there is a notable increase in positive affect, whereas lack of consent can lead to a decrease in positive affect and a slight reduction in job performance (Mollick & Rothbard, 2014). Thus, gamification driven by extrinsic motivators, such as job or salary security, may not yield the same productivity benefits as those driven by intrinsic motivation. The research conducted by Mekler et al (2015) examined the impact of gamification elements such as leaderboards, levels, and points on user engagement. The findings indicated that although these features led to a higher quantity of tags in an image-tagging exercise, they did not significantly improve the participants’ intrinsic motivation, their sense of fulfillment of psychological needs, or the overall quality of the tags produced. This suggests that such elements function primarily as extrinsic rewards. The researchers pondered if this outcome was due to the activity being labeled as a “task” rather than a game (Lieberoth, 2015), or because the task lacked engaging feedback. This brings into question whether gamification is genuinely effective as a long-term strategy for fostering intrinsic motivation, or if its positive effects are merely temporary, stemming from its novelty.

The anticipation for a more robust gamification approach is palpable. Proposition 4 could indeed be broadened to encompass additional facets of employee engagement, such as wellbeing and job satisfaction. This innovative framework’s influence extends well beyond the realm of Higher Education, potentially revolutionizing any sector where gamification is applied to enhance engagement. Within an organization, gamification plays a pivotal role in nurturing employee growth and corporate development. It offers a streamlined approach to training and development. The benefits of gamification are manifold, positively affecting both the workforce and the organization at large. These benefits include improved employee relations, increased retention rates, simplified implementation and training processes, effective onboarding, meeting the evolving needs of the company, steering employees towards their objectives, and overall organizational productivity.

Literature Review

The concept of gamification has garnered significant attention in both academic and non-academic circles. A meticulous literature search utilizing the keywords “gamification” and “work” reveals a plethora of articles, with a particular emphasis on peer-reviewed scholarly papers. Perryer et al (2016) underscore the importance of such rigorous academic scrutiny, noting the limitations often found in non-scientific publications that lack the methodological rigor of peer-reviewed studies. Despite the burgeoning interest, peer-reviewed research on gamification is not without its critiques. Common concerns include small sample sizes, the use of measures with questionable psychometric properties, and a predominance of descriptive studies. These issues are symptomatic of emerging research areas seeking to establish a foundational understanding.

Nevertheless, a meta-analytic study encompassing 24 empirical studies on gamification has shed light on its nuanced effectiveness. The study concludes that the success of gamified interventions is highly contingent upon the context of their application and the characteristics of the target users. Educational and learning environments appear to benefit from gamification, exhibiting positive outcomes. Conversely, intra-organizational applications, such as IBM’s Beehive social networking service (Farzan et al., 2008), have demonstrated positive effects, albeit with a tendency towards transience. The relationship between gamification principles and motivation has also been scrutinized, with several studies indicating weak or even negative correlations. This raises pertinent questions regarding the practical utility of gamification within workplace environments. In contrast, serious games like “America’s Army,” released in 2002 as a strategic marketing tool, exemplify the potential of gamification to engage consumers effectively. The game allows players to immerse themselves in military experiences, thereby serving as a compelling recruitment instrument.

Further research by Flatla et al (2011; Genovese et al., 2024) has shown that gamifying monotonous tasks, such as the calibration of interactive systems, can enhance user satisfaction. Similarly, virtual badges on platforms like Stack Overflow (Anderson, 2013, see Venkatesh et al, 2016) have incentivized knowledge sharing, while idea generation competitions have thrived through the integration of point exchange systems (Scheiner, 2015, see Abril et al, 2024). In the realm of health and fitness, mobile applications such as Fitocracy have successfully employed point systems to motivate users towards increased physical activity (Hamari & Koivisto, 2015). Moreover, the Romanian affiliate marketing network, 2Parale, has leveraged gamification through monthly challenges involving avatars, leaderboards, points, and quests to boost engagement and drive sales (Salcu & Acatrinei, 2013). In summary, while gamification is present as a promising approach for enhancing engagement and motivation across various domains, its effectiveness is highly context dependent. The empirical evidence suggests that while educational settings can benefit from gamified approaches, the application within workplace settings warrants further investigation to ascertain its long-term benefits and potential drawbacks.

RESEARCH GAP

Previous studies and publications have indicated that factors such as attitude towards game-based learning, age, and gender play a moderating role in the effectiveness of gamification on its desired results. In her prior research, Chaurasiya (2024) delved into the outcomes of implementing gamification strategies. The study provided insights into how gamification can influence various aspects of user engagement and performance. However, there appears to be a lack of prior work addressing these aspects specifically within the context of employee sectors in India.

OBJECTIVE

- Investigating the elements of gamification that influence the training and development of employees.
- Evaluating the critical success factors in the training and development of employees.

II. METHOD

This exploratory research is designed to uncover numerous factors influencing employee productivity, with a focus on gamification, learning, and development, among other aspects. A non-probability sampling method has been employed, utilizing both authoritative and convenient sampling techniques. Data was gathered from a sample of 100 employees through an online survey among which accurate data was received from 75 respondents. This study also aims to serve as a foundation for future research into employee learning and development, an area that is underexplored. The findings are intended to provide organizations with insights into the challenges their employees face, strategies for enhancing motivation and efficiency, methods for reducing stress while increasing engagement, and the impact of gamification on employee productivity.

III. RESULTS AND DISCUSSION

Here are some successful gamified training programs that have been implemented in various organizations:

Table 1 Successful Gamified Training Programs

Games	Utilized Gamification for
Sally Beauty Supply	Retail sales training, creating engaging learning for employees.
Astra Zeneca	The rollout of new medicines provides a unique and effective way to enhance leadership skills.
Deloitte	Senior leadership development, providing a unique and effective way to enhance leadership skills.
Cisco	Their sales associate training, which helped to boost motivation and improve sales skills among their employees.

Source: Round Table Learning

Analysis On the Elements of Gamification That Influence the Training and Development of Employees

Table 2 Elements of Gamification

Training and Development Method	N	%
Coaching	71	94.7
Mentoring	71	94.7
Individual development Plans	69	92
The 9-box Grid	34	45.3
Cross Training	8	10.7
Job Enlargement and Job Enrichment	71	94.7
Job Shadowing	1	1.3
Gamification	71	94.7
It varies from case to case	1	1.3
others	1	1.3

Based on the data provided in Table 2, the most effective training and development methods for employees, as indicated by their high percentage of utilization (94.7%), are:

- **Coaching:** A personalized approach where a coach works closely with an employee to develop skills and achieve goals.
- **Mentoring:** A relationship in which a more experienced or knowledgeable person helps guide a less experienced or knowledgeable person.
- **Job Enlargement and Job Enrichment:** Methods that increase the range of tasks and responsibilities an employee has, which can lead to greater job satisfaction.
- **Gamification:** The integration of game-design elements and principles into non-gaming environments aims to enhance user involvement and boost organizational efficiency. This approach, known as gamification, leverages the compelling nature of games to create a more engaging and productive experience in various contexts.

Note that each method's effectiveness can vary depending on the specific context and needs of the organization and its employees. Therefore, a combination of these methods, tailored to the individual case, is often the best approach to training and development.

Analysis of the Critical Success Factors in the Training and Development of Employees

Table 3 Critical Success Factors in the Training and Development

Training and Development Method	N	%
Coaching	72	96
Mentoring	72	96
Individual development Plans	71	94.7
The 9-box Grid	30	40
Cross Training	11	14.7
Job Enlargement and Job Enrichment	70	93.3
Job Shadowing	1	1.3
Gamification	71	94.7
It varies from case to case	1	1.3

The analysis of Table 3 indicates that the most favored training and development methods within the organization are:

- **Coaching and Mentoring**, both with a high preference rate of **96%**. These methods involve personalized guidance to help employees develop their skills and advance their careers.
- **Individual Development Plans** and **Gamification** are also highly regarded, with utilization rates of **94.7%**. Individual plans are tailored to help employees meet their professional goals, while gamification uses game-like elements to increase engagement and learning.
- **Job Enlargement and Job Enrichment** methods are employed at a slightly lower rate of **93.3%**, suggesting a strong emphasis on diversifying employees' job roles to enhance satisfaction and productivity.

In contrast, the **9-box Grid** is used less frequently, with a **40%** rate, indicating it may not be the primary tool for talent management in this organization. **Cross Training** is utilized to a lesser extent at **14.7%**, and **Job Shadowing** is the least utilized method at **1.3%**. The data suggests that methods which offer personal growth opportunities and active engagement are preferred, aligning with the organization's commitment to employee development. The low rate for "It varies from case to case" at **1.3%** indicates a consistent approach to training across the organization.

IV. Conclusion and Recommendation

In summary, it is essential to recognize the ethical limitations of gamification. It can potentially alter the context of an experience to such an extent that it obscures the true nature of a task, thus undermining the validity of participants' consent. The inappropriate application of game elements in mandatory, intrusive, or exploitative non-gaming contexts can transform gamification from a learning enhancement tool into a mechanism for diminishing resistance. Consequently, we recommend that practitioners initially apply gamification to voluntary aspects of a course. As previously discussed, integrating gamification into educational settings is an augmentation of the practitioner's reflective cycle. Existing quality frameworks supporting this practice will evolve to include ethical guidelines promoting responsible gamification. Our framework could be adapted to articulate the gamification process more clearly, ensuring ethical integrity. The moment gamification is used to deceive, coerce, or placate participants regarding the task's nature, it crosses into unethical territory. Therefore, any gamification efforts must be subject to ethical scrutiny. This research's main goal was to develop a theoretical framework for the systematic implementation of gamification, aimed at enhancing employee engagement and achieving learning outcomes. This study paves the way for the scientific application and critical assessment of gamification, as outlined in the following propositions:

- (1) Gamification is a methodology that can be employed to alter the states of employee engagement, thereby facilitating the attainment of learning objectives.
- (2) The intensity of an employee's engagement, encompassing the affective, cognitive, and behavioral dimensions, can significantly influence learning outcomes in a quantifiable manner.
- (3) The triad of learning domains—cognitive, affective, and psychomotor—provides a framework for selecting appropriate game elements that align with and promote specific educational goals.
- (4) By identifying the psychological domain that overlaps between the desired, altered state of employee engagement and the targeted learning outcome or educational aim, an appropriate game feature can be strategically selected to enhance the gamification approach.

Limitations

This research is based exclusively on participant feedback, which may introduce bias into the findings. As with any scholarly inquiry, it is crucial to recognize the inherent limitations of this

study. Acknowledging these limitations is vital as they offer valuable insights into research methodology and its scope. The specific constraints of this investigation include:

- The study was conducted within a small demographic, which may limit the broader applicability of its conclusions.
- Due to the constrained sample size, the outcomes may not be indicative of a wider population.
- The integrity of the results hinges on the presumption that the participants' responses were truthful and precise.
- The selected sample may not be a true reflection of the entire demographic of interest.
- A portion of the participants exhibited reluctance in completing the survey or in sharing their views candidly.

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