Insights on Gamification in Business and Management Education: A Qualitative Evidence Synthesis

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Abstract

This paper aims to provide a qualitative evidence synthesis of research articles employing primary qualitative data on gamification in business and management education. The scholarly background portrays several reviews and mostly quantitative studies on this topic, dealing mainly with research performed on gamification in education within other subjects (i.e., computer science, IT-related, STEM). These observations enable the need to depict also current literature ground on qualitative studies within business and management education. We employed a qualitative thematic synthesis on 10 studies dealing with at least one form of qualitative methods, that revealed five descriptive themes, such as entrepreneurial self-efficacy, engagement, motivation, and social completion; self-related competencies; knowledge, skills, and abilities; interaction, enjoyment, fun; gamification downsides. The aggregated analytical themes revealed the importance of game elements, game quality and game's real-life correspondence in influencing learning, motivation, engagement, in building up self-competencies, fostering participants' involvement and sense of belonging. These results posit the need for further qualitative studies on gamification in business and management and a better understanding of gamification's effects on education within this field.

Keywords: *gamification, education, management and business, qualitative evidence synthesis.*

JEL classification: A20, M00.

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1. Introduction

The topic of gamification has received increased interest and attention over the last years, being a rising trend both in business (Wünderlich et al., 2020; Sharma et al., 2024) and education (Al-Hafdi & Alhalafawy, 2024; Oliveira et al., 2022). However, despite the abundance of studies within the last five years on gamification in education in general (over 40.000. studies published between 2020-2025 according to Google Scholar), very little has been reported on gamification in the field of education in business and management and even less has been researched using qualitative methods. Thus, we take stock of existing qualitative studies on the use of gamification in education in business and management and perform a qualitative evidence synthesis of the presented results within these papers. The novelty of the paper therefore consists in painting a unique canvas of

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existing qualitative studies within this field. Our aim is to reveal ongoing both recurring, new themes and blank spaces in terms of using gamification in business and management education. Our results include analytical themes relating to core topics of gamification such as learning while also addressing motivation, engagement, enjoyment, tracking progress and reflecting on self-related competencies. The rest of the paper is organised as follows. Within the literature review section, we provide an overview on employing gamification within education, entailing both positive and negative features, enclosing with a wrap-up on current research state within business and management education. The research methodology than introduces the methods used in selecting and assessing existing qualitative studies. The results section presents the method of data extraction through open coding and the findings from the performed analytic synthesis, which clusters emerging themes among the 10 analysed studies.

Altogether, these results are important from a scholarly perspective in underlining the need for more qualitative studies in better understanding the effects of gamification on students, instructors, and learning systems. The conclusion section summarizes key findings and underlines paper's limitations and future research prospects.

2. Literature Review

Gamification is generally understood as being the use of game elements in non-game services and applications (Deterding et al., 2011). Gamification was first used in 2008 (Tsay et al., 2018), having entered as a technical term in 2010 (Dichev & Dicheva, 2017) often employing point systems, badges, levels, and leader boards, and thus tracking progress through game elements (Langendahl et al., 2016). The reach of this concept has extended over time to several business-related domains such as enhancing customer engagement (Shi et al., 2022; Chernbumroong et al., 2022; Lopes et al., 2022), innovation within teams (Patricio et al, 2022), employing control mechanisms (Vieira, 2023), human resource management (Bansal et al., 2023), mobile marketing (Li et al., 2023), and corporate sustainability (Lan & Song, 2025).

In matters of its application within education, several research strands emerged within the last years, gamification being a pedagogic approach with the goal to motivate and engage students (Langendahl, et al., 2016; Araya et al. 2019; Sailer & Homner, 2020; Simionescu & Mascu, 2017), enabling fewer boring classes and an enhanced attendance (Kirillov et al., 2016; Laskowski & Bandurowicz, 2014). Also, gamification relates positively to increasing students' achievement and students' preference for using technology while learning (Araya et al., 2019). The review of Langendahl et al. (2016) offers a systematic categorization of game elements including (1) surface elements, encompassing points, badges, and leader boards (2) underlying dynamics, incorporating narrative, role play, feed-back and progression and (3) participant experience, covering challenges, competition, and enjoyment. An overview on the game elements used within several studies is also provided by Šćepanović et al. (2015), including

competition, collaboration, and feed-back among the classical game elements such as scoreboards, levels, badges, and progress bar. Student engagement proved to be strongly related to the quality of game elements (Deif, 2017), whereas competition seems to enhance students' engagement within a gamified setting (Langendahl et al., 2016). Bearing in mind other positive effects, gamification has a direct influence on students' engagement and knowledge (Murillo-Zamorano et al., 2023) favoring the development of skills demanded by workplaces (Murillo-Zamorano et al., 2021). Moreover, Huang et al. (2020) also states that game elements influence attitudes, behaviours and learning outcomes. In a similar line of thought, gamification contributes towards reaching cognitive, motivational, behavioural, and learning outcomes (Sailer & Homner, 2020), and has a positive influence on learning outcomes within formal education settings, while responsive feed-back was also important in fostering engagement (Huang et al., 2020).

Fewer mentions can be found among scholarly works related to gamification's downsides. Araya et al., (2019) note a depletion in students' preferences for working in teams, whereas (Šćepanović et al., 2015) underlines that students might also refuse to participate within a gamified setting. Among other downsides in using gamification, (Almeida et al., 2023) found that the employed game elements reported most negative effects.

In matters of the applicability of gamification within formal educational settings, reviews such as Ortiz et al. (2016) and Dichev & Dicheva (2017), showed that gamification is mostly employed within computer science and IT related disciplines. Also, a quantitative research design is mainly used to assess its effects (Ortiz et al., 2016; Sailer & Homner, 2020). In addition, according to the meta study performed by Huang et al. (2020), amidst analysed domains that employed gamification, business and management have a lower adoption within learning environments, while Dias (2017), also mentions a lack on the application of gamification within management university courses and Gini et al. (2025) states that gamification is rather used in STEM education. Also, exploratory studies within this field employed predominantly quantitative study designs (Araya et al., 2019; Deif, 2017; Kirillov et al., 2016; Laskowski & Bandurowicz, 2014, Legaki et al. 2019; Simionescu & Mascu, 2017; Murillo-Zamorano et al., 2021). These insights have leveraged pursuing whether and how gamification is employed in business and management education and furthermore, how gamification is portrayed in qualitative studies, leading to following research question:

RQ: What are the insights on gamification in qualitative research dealing with education in business and management?

3. Research Methodology

Within this paper, we have chosen to perform a qualitative evidence synthesis (Flemming & Noyes, 2021), enclosing a qualitative thematic synthesis (Thomas & Harden, 2008).

A qualitative evidence synthesis allows a more interpretative and rich information on a specific phenomenon (Noyes & Booth, 2019) unlike other types

of reviews because it goes beyond "what works" (Flemming & Noyes, 2021, p.2), incorporating primary qualitative data from other studies. In doing so, researchers could find new insights on a specific topic, that might be difficult to grasp when performing a single qualitative study. Among possible methods in performing a qualitative evidence synthesis we can note qualitative thematic synthesis, framework synthesis and meta-ethnography (Flemming & Noyes, 2021).

A qualitative thematic synthesis is known as being an interpretative approach grounding on a thematic analysis of the findings of primary qualitative studies, thus resulting themes having potential to emerge both in a descriptive and analytical manner (Flemming & Noyes, 2021). Performing this analysis involves three steps (Thomas & Harden, 2008): (1) line by line coding (2) developing descriptive themes (3) developing analytic themes.

An underlying question is how many primary qualitative works would be appropriate for a qualitative evidence synthesis. As stated by (Sandelowski et al., 1997), an analysis on a thematic domain that includes more than 10 studies, impede their employment within a single qualitative evidence synthesis project, because focusing on incorporating too large samples could jeopardise a deep and thoroughly analysis. Thomas & Harden (2008), also mention the conceptual saturation to be aimed, rather than focusing on a specific number of cases.

3.1 Search Procedure, Inclusion, and Exclusion Criteria

To meet the aims of our paper, we first searched within Scopus and ScienceDirect databases for studies using following terms: gamification, qualitative case study, gamification in/and education in business and management. Amidst this stage we applied the recommendations in retrieving specific studies, rather than retrieving all potential studies, since qualitative research is much less widespread than quantitative research (Flemming & Noyes, 2021). We also bear in mind following limitation as per Noyes & Booth (2019) that "procedures for retrieval of qualitative research remain relatively under-developed".

During the search process, following filters were applied: the studies had to be published (1) in a journal to meet scientific requirements requested per peer review (2) in English language (3) only within business, management, and accounting domain (4) incorporating a qualitative study design. Within this search, no time limits were set for filtering out publications. Since this search process did not reveal a number of studies that assured both deepness and richness in data, we than searched within Google Scholar applying same criteria and using a snowball technique, thus potential reliable studies leading to others. We also included studies applying mixed methods if they employed qualitative data (Caskurlu et al., 2021). We did not include any papers that relied exclusively on quantitative data, or any type of reviews. After applying this procedure, 10 studies could be drawn for further analysis. We did not exclude studies based on quality criteria, hence there is a plethora on considerations as to what a good study means (Sandelowski et al. 1997).

3.2 Assessment of Included Studies

The 10 narrowed down studies were read multiple times, while we assessed their suitability for our research. As such, we identified the research design used, the methods and the subjects. Thus, 7 out of 10 studies employed mixed methods, whereas we assessed wheatear enough qualitative data was available within these studies. All retrieved papers were published within the last six years, which proves that this topic is current and timely. Three of the papers addressed adjacent subjects to business and management but focused on student or adult education. Nevertheless, given the insights and richness in data, we chose to include these also. Mainly, the articles addressed students, or adults, as receivers of some form of gamification, thus assessing the outcome of such an intervention within the results, or findings section, while some of the papers also include viewpoints of other stakeholders (i.e., faculty members, instructors).

Characteristics of the 10 included studies

Table 1

No.	Authors	Date	Design	Method
1.	Almeida, F. and Simoes J.	2019	Qualitative	Case studies Field research
2.	Baumtrog, M.D., Martin, H., Vahedi, Z. and Ahadi, S.	2019	Mixed	Survey
3.	Elsawah, W.	2025	Qualitative	Descriptive case study
4.	Isabelle, D.A.	2020	Mixed	Survey and formal teaching evaluations
5..	Jaskari, M.M. and Syrjälä, H	2023	Mixed	Survey and discussions
6	Klock, A.C.T., Gasparini, I. and Pimenta, M. S	2019	Mixed	Experiment and discussion
7.	Lynch, M., Kubberød, E., Sanne, N. and Finrud Josendal, A.H.	2025	Qualitative	Interviews
8.	Mohite, R., Chaurasiya, R., Sharma, S., Akre, S., Rajawat, A. and Rodrigus, K.	2025	Mixed	Surveys, classroom observation academic performance data
9.	Nair, B.B.	2022	Mixed	Interviews Online questionnaire Participant observation
10.	Tews, T., Skulmoski, G., Langston, C. and Patching, A.	2020	Mixed	Survey with open & closed questions Interviews

Source: information extracted by the author based on selected studies

4. Results and Discussion. Data extraction and Thematic Synthesis

The 10 selected studies that embodied qualitative data were imported into MAXQDA 2024, for open coding purposes (Corbin & Strauss, 2014), applying a both deductive and inductive approach, whereas we moved back and forth between data and emerging categories (Braun & Clarke, 2006). We coded only the results/ findings section of each paper. Depending on paper's structure, we coded participants' and observers' narrations (first order data), already existing themes within the paper (second order data), or both, resulting third order data.

Within next section we will present the outcome of the qualitative evidence synthesis, whereas we grouped the insights inferring from the results section of each paper within the thematic synthesis. After open coding each paper, we grouped the results within themes, thus aiming to highlight key take-aways for participants after a gamification intervention.

4.1 Descriptive Themes

Entrepreneurial self-efficacy, engagement, motivation, and social completion

In matters of entrepreneurial self-efficacy, we noticed among the analysed statements that students learned how to recognize a business opportunity, being able and ready to start an own business (Isabelle, 2020), also learning on how to identify and analyse customer groups (Lynch et al., 2025). The games experienced by students assisted them in developing a more accurate business plan and provided an immersion into real-life aspects of an entrepreneur (Lynch et al., 2025). Also, within one paper we identified one student who stated that the game helped encounter the realisation that entrepreneurship would not appeal as a desirable career path (Isabelle, 2020).

Referring to participants' engagement and motivation, game elements such as scorecards and rules of the game contributed positively towards engagement (Elsawah, 2025; Mohite et al., 2025) and motivation. Also, receiving immediate or later feed-back from peers and instructors was mentioned (Elsawah, 2025; Lynch et al., 2025; Nair, 2022) and this could lead to an increased engagement, which in turn generates motivation. Collaboration (Elsawah, 2025; Lynch et al., 2025; Tews et al., 2020) and competition (Klock et al., 2019; Lynch et al., 2025; Nair, 2022; Tews et al., 2020) were seen mostly as motivators, whereas only two statements agreed that competition with other students was not a main objective (Jaskari & Syrjälä, 2023). Peer pressure to continue, thus avoiding procrastination (Lynch et al., 2025) was also a positive effect related to motivation. In respect to games' contribution towards learning, students mostly stated that classes were less boring (Nair, 2022), they learned faster, memorized better, attended classes spontaneously, and overall learned in a more practical way (Tews et al., 2020).

The results corresponding to social completion showed that there are students who learn better in groups, teaching each other and succeeding both as an

individual, and as a team (Jaskari & Syrjälä, 2023; Lynch et al. 2025; Nair, 2022). Few participants stated that competition with other students and losing repeatedly while playing a game decreased their motivation (Elsawah, 2025; Jaskari & Syrjälä, 2023).

Figures 1-5 depict the code tree resulted through creative coding, encompassing the results discussed, including the frequency in mentions.

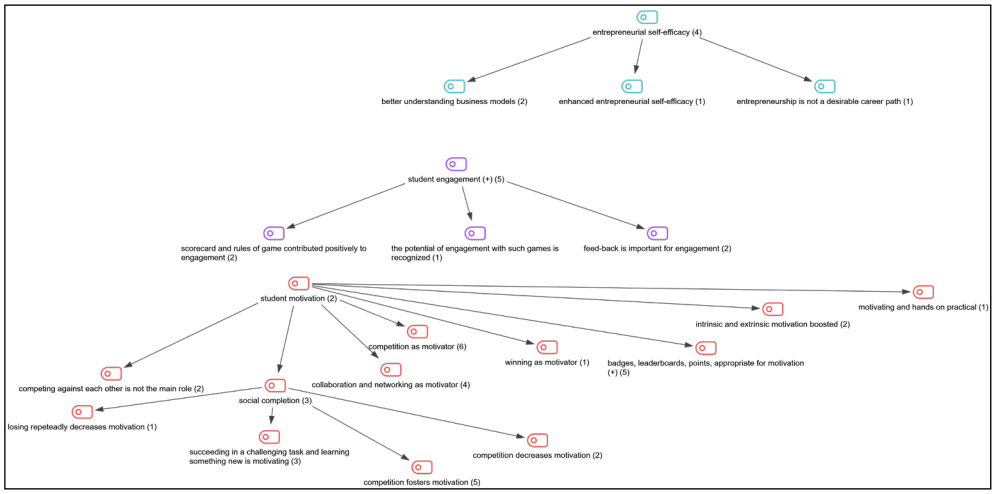

Figure 1. Creative coding on entrepreneurial self-efficacy, engagement, motivation, and social completion

Source: analysis performed using MAXQDA 2024

Self-driving, self-reflecting, self-assessment, self-awareness

According to the results presented by Baumtrog et al. (2019), students reported feelings of self-reflection encompassing empathy, reflecting on reversal or failure and self-drivers, as they disable or enable confidence, focus, courage, and assertiveness. Regarding self-assessment, other students mentioned the ability in assessing materials available for learning (Klock et al., 2019). In matters of self-awareness, the students used gamification to check their results, track and observe their progress (Klock et al., 2019) and reflect on the game, while feed-back from peers proved to be very useful, students emphasizing the need for self-and team-reflection (Lynch et al. 2025). At the same time, gamification without further discussion and reflection, would have lesser value (Tews, et al., 2020)

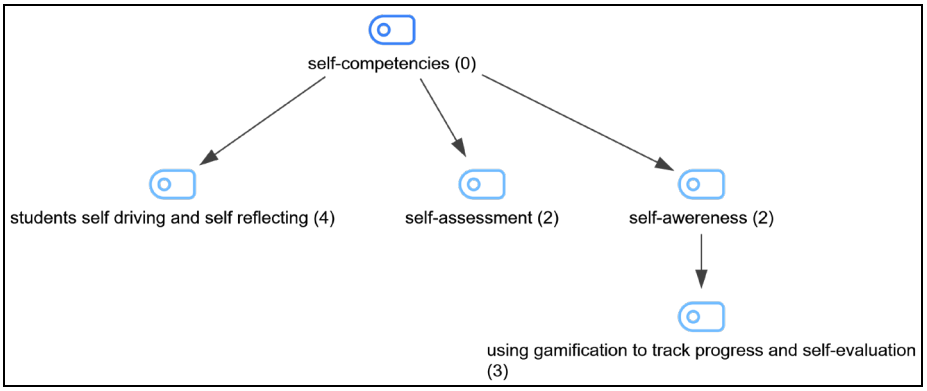

Figure 2. Creative coding on self-driving, self-reflecting, self-assessment, self-awareness

Source: analysis performed using MAXQDA 2024

Knowledge, skills, abilities

Gamification is considered beneficial for skills training (Almeida & Simones, 2019), whereas some participants remember the lessons vividly because of the simulation approach (Elsawah, 2025), and others encountered an increase in thinking critically (Nair, 2022) or creatively, understanding situations first, identifying new options and solutions, understanding consequences, and assessing the difficulty in making decisions (Baumtrog et al., 2019). Repeated application of concepts through games, thus connecting theory to practice (Mohite et al., 2025), learning faster through games and memorizing better (Nair, 2022), learning new skills, and refining the acquired knowledge (Tews et al., 2020) were also mentioned. Also, students known as low performers demonstrated an improved effort and focus (Mohite et al., 2025). These insights are important hence there is an increased demand nowadays in terms of diversifying teaching methods, addressing changing needs and an adapted instruction (Enachescu & Staiculescu, 2024).

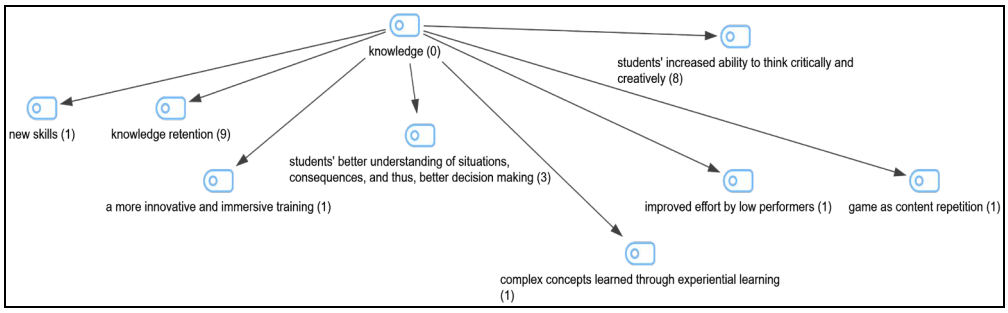

Figure 3. Creative coding on knowledge, skills, abilities

Source: analysis performed using MAXQDA 2024

Interaction, enjoyment, fun

As positive outcomes of gamification, we also identified within participants' statements mentions such as fun and educational (Isabelle, 2020), fun and interesting while enabling better concentration in class (Nair, 2022), enjoyable and thus enabling active participation (Elsawah, 2025), feelings of belonging to a group and helping others (Jaskari & Syrjälä, 2023). Gamified activities would help students in concentrating more in class, having fun while also learning, (Nair, 2022).

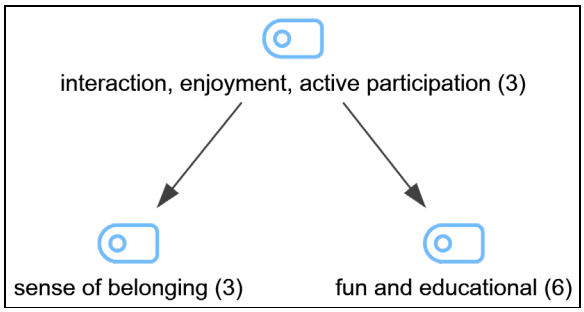

Figure 4. Creative coding on interaction, enjoyment, fun
Source: analysis performed using MAXQDA 2024

Gamification downsides

Among the negative aspects depicted (Almeida & Simones, 2019), employing gamification requires teacher trainings, embedment in a didactical system, a need for multidisciplinary skills, and time. Another downside would be failing in matching each gamified task to real life situations (Elsawah, 2025). There is also an opinion among the students that the traditional way (i.e., not a gamified context) is still a better way to learn (Jaskari & Syrjälä, 2023). Also, according to the results of Mohite et al. (2025), gamification would lose its impact if it were not refreshed with new content. Other possible downsides mentioned the influence of dominant personalities within students' group on the collaboration process within the game, time pressure, stress, possible long decision making and pressure to perform (Tews et al., 2020).

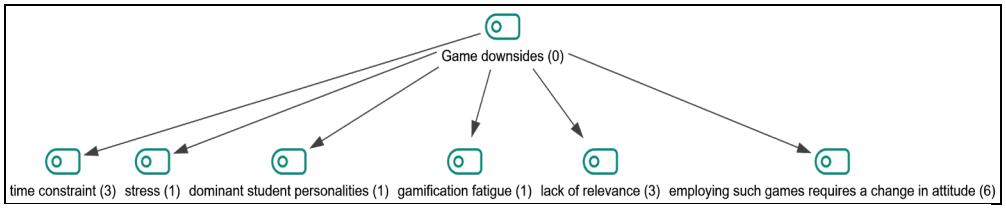

Figure 5. Creative coding on gamification downsides
Source: analysis performed using MAXQDA 2024

4.2 Analytical Themes

We aggregated the five descriptive themes above as per Caskurlu et al. (2021), resulting the concepts pictured in figure 6. The thematic synthesis revealed that the game elements (i.e., points, leader boards, but also feed-back, collaboration, competition), game quality and its real-life correspondence have an influence on students' learning (encompassing refining, but also acquiring new skills, thinking critically and creatively), on motivation and on engagement.

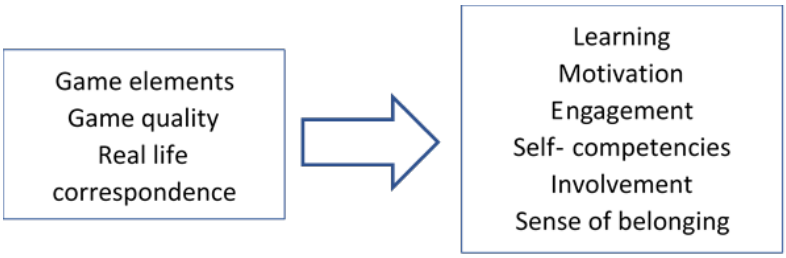

Figure 6. Analytical themes
Source: author's work based on analysed data

Also, a successful gamification intervention leads to students' enabling self-assessment, self-reflection, self-driving, and self-awareness, but also enhances students' involvement and fosters a sense of belonging among participants. In reverse, a poor game quality, a less successful matching of gamification tasks to real life and sometimes game elements such as competition, might have a negative influence on learning, motivation, engagement, self-competencies, involvement, and sense of belonging. Thus, instructors should bear in mind the effects of game elements, game quality and its real-life correspondence when designing and employing a gamification intervention.

5. Conclusions

The qualitative evidence synthesis revealed how gamification is portrayed in qualitative studies within business and management education. Within the papers that investigated how entrepreneurship was met through gamification, students stated that they were able to draft a business plan, assess clients, and have a kind of a glimpse in an entrepreneur's activity. Such an approach of enabling knowledge transfer and embedding entrepreneurial activities within universities could be a part of a model describing an entrepreneurial university (Tripa et al., 2025). Still, when incorporating entrepreneurial elements within educational settings, factors affecting entrepreneurship on a local, national, or regional level should also be considered (Trocinescu et al., 2025). When analysing the relationship between game elements and engagement, we found that most of the students felt that game elements had a positive contribution towards engagement and motivation, whilst social completion clarified how students learn through socialisation. We also noticed a proliferation of self-competencies,

whereas gamification enabled students' awareness, reflection, and assessment of their own learning path. Also, as an outcome of gamification, we encountered an increase in students' abilities in thinking critically and creatively, acquiring new skills, matching learned concepts to reality and a better retention of information. Moreover, students related experiencing a sense of belonging while interacting, and having fun while also learning. Gamification's negative aspects pinpointed foremost to employing a change in attitude (both for students and instructors) time constraint and lack of relevance for business reality.

Although our study shed light upon several aspects of gamification in qualitative studies within management and business education, we distinguish some methodological and theoretical limitations. On one hand the paucity in purely qualitative studies dealing with gamification within business and management education; on the other hand, we acknowledge that we might have overlooked qualitative studies published in other outlets. Also, regarding the identification and assessment of papers, we reflect upon the need for a better consensus within the academic community as to how to identify and assess qualitative studies. Another limitation constitutes researcher reflexivity, this being the work of a sole author. Thus, we could maybe expect a slightly different approach, or results, when expanding this research within a team of coders.

Nevertheless, this is, to the best of our knowledge, the first attempt in providing a qualitative evidence synthesis on gamification in education within the field of business and management, underlining the need for more qualitative studies on gamification on education in general, and on gamification in education within business and management.

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