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Endorsing gamification pedagogy as a helpful strategy to offset the COVID-19 induced disruptions in tourism education

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ABSTRACT

This study explores the role and benefits of game-based learning activities in tourism higher education in the context of COVID-19-induced disruptions. Interpretive paradigm guided by qualitative research design was adopted. Data were collected through a combination of semi-structured interviews, online questionnaires and participant observation. The study findings identified five main advantages of gamification: a) Enhancing student engagement, participation, and motivation; b) Adding learning-experience value; c) Embracing diversity and inclusion; d) Simplifying assessment and feedback; e) Nurturing employability skills. These findings underline the effectiveness of using game-based learning in vocational disciplines like tourism technologies to enhance the quality of teaching. They also identify gamification as a multifaceted tool for a great learning experience amid the disruptions of the pandemic in the higher-education sector.

1. Impact of COVID-19 on tourism higher education

The COVID-19 pandemic has affected all aspects of human life, specifically with a wide variety of consequences for the conventional education system. The pandemic's rapid breakout has significantly impacted all university operations, particularly teaching and learning systems (Qiu et al., 2020). Stay-at-home orders and lockdown restrictions force the education sector to follow various operational practices, such as online, offline or hybrid learning. Though the idea of online education is not new in higher education (HE) institutions, applications and interest in educational technology have increased dramatically as many institutions have chosen to provide online courses, despite the short preparation time. Demand for online education is likely to continue growing in the near future, and conceivably, the unexpected consequences of COVID-19 may disrupt conventional practices, at least temporarily (Li & Lalani, 2020; Qiuhan et al., 2020, pp. 411–418). The pandemic outbreak has forced all academics to seek practical and technical ways to teach and learn. Positively, the COVID-19 pandemic also provides an opportunity for teachers to explore and adopt online teaching tools and techniques, such as Massive Open Online Courses (MOOCs) and Small Private Online Courses (SPOCs).

Similarly, the present unprecedented circumstances emphasise the excellent use of education technologies to embrace the changes and uncertainty and avoid 'online fatigue' among teachers and students. Unforeseen situations, lack of preparation and quick transformations are challenging the HE sectors across the globe. Disciplines, levels of study and courses reflect the variation in teaching and learning experiences.

Apparently, both the tourism business and education are adopting technologies in an unforeseen manner. Tourism HE sector has been begun to embrace educational technologies to address pandemic-related issues; hence, the studies are growing (Lei & So, 2021; Qiu et al., 2020; Adedoyin & Soykan, 2020; Adeyinka-Ojo et al., 2020). Many researches discuss perceptions (Adeyinka-Ojo et al.,

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2020; Dewi, 2020, pp. 405–420; Edelheim, 2020; Higgins-Desbiolles, 2020) and impacts (Sigala, 2020; Ye & Law, 2021) of contemporary tourism education. However, there is little research focusing on educational technology, especially gamification in tourism education in COVID-19 and related interruptions.

The complicated elements of online classes for vocational courses like tourism are to maintain the desired level of student engagement, participation, and motivation. Prolonged teaching hours, social isolation and technological interventions are distracting student attention in classes. Contextually, educational technology is a valuable tool to keep them motivated, focused and active in the class. The potential of online education makes understanding the role and effectiveness of educational technologies worthwhile to enhance the teaching and learning experience. At this juncture, this study explores the overall impacts of gamification, specifically for online and hybrid classes.

Education is one of the main areas exploring gamification actively. Student motivation influences academic success, which affects the effort and time spent studying (Linehan et al., 2011). The popularity of gaming makes interesting the idea of using gamification and its concepts to encourage learners. The use of game features and experiential interactions catalyses active learning, facilitating learning in a variety of contexts and academic subjects by addressing such factors as motivation, practices and behaviours that make active learning, teamwork, self-guided study, the performance of assignments and rendering evaluations easier and more efficient (Dichev & Dicheva, 2017; Caponetto et al., 2014). However, compared to other disciplines, tourism education is still in its infancy to identify the effectiveness of gamification as a pedagogy. To this end, this study examines the following questions: 1) What are the benefits of gamification in tourism education in the context of current online teaching? 2) How does game-based learning enhance student experience and satisfaction? 3) To what extent does gamification help reduce online class boredom as an obstacle to tourism education?

2. Literature review

2.1. Gamification: definitions and applications

The most common definition of gamification is game-play mechanics in non-gaming settings (Deterding et al., 2011). Other definitions focus on ‘using game-based mechanics, aesthetics and game thinking to engage people, motivate action, promote learning, and solve problems’ (Kapp, 2013, p. 10). Some other definitions indicate gamification’s function in eliciting user experience and behavioural consequences through competence, participation and involvement (Aguilar-Castillo et al., 2020). As a cross-disciplinary notion, it encompasses various conceptual and empirical disciplines, technical domains and platforms, with an array of practical objectives motivating users (Buckley & Doyle, 2016).

The tourism industry is also embracing gamification. Tourist gamification highlights intrinsic and extrinsic incentive factors that actors in tourism-related industries may utilise to impact user experience, customer loyalty, brand recognition and user interaction (Xu et al., 2013). Xu et al. (2016) also identify multidimensional benefits of gamification for tourism motivation, information-seeking, intrinsic stimulation and socialisation, all benefits of tourism marketing.

In a game-based learning (GBL) activity, rules provide explicit limitations on what a student may do, a fundamentally different learning experience than coursework, assignments or presentations (Buckley & Doyle, 2016, Seaborn & Fels, 2015). Gamification prompts culturally inclusive behaviours. Some study for fun or to fulfil their passion for learning; others have a reward in mind, e.g., well-paying badges, stars, or financial gain. Many theories support gamification in education (see Table 1).

Linking learning objectives to game-based learning has many vital benefits, considering the current context of the pandemic-

Table 1
Theories of gamification: a multidisciplinary perspective.

Major theories underlining gamification		Supporting game elements used in the current study
Self-efficacy theory (Bandura, 1982; Gnauk et al., 2012)	Self-efficacy refers to an individual’s conviction about his/her ability to cope with challenging circumstances. It is also associated with flexibility, adaptability and persistence. By monitoring performance and providing immediate feedback, leader boards badges and bonus points may also help boost self-efficacy.	• Leader boards • Badges • Monitoring response • Feedback • Bonus points
Self-determination theory (Ryan & Deci, 2000; Sailer et al., 2017)	According to self-determination theory, three inherent psychological needs motivate people: independence, connectedness, and competency. Competency relates to the drive to excel in one’s activities or education. Gamified techniques that include indications of participant advancement and quick feedback may aid in the development of users’ awareness of competence.	
Goal-setting theory (Kapp, 2013)	A goal equips a person with direction, concentration and quantifiable results that may be utilised to specify what needs to be done; emergency, precise and moderately challenging goals are more inspiring. When people get immediate results, as seems to be the case with many gamified processes, students can work at their own pace towards their goals.	
Social comparison theory (Festinger, 1954; Molleman et al., 2007)	Human beings assess their views and skills by comparing themselves to others, per social comparison theory. In gamification, two kinds of comparisons may occur: upward (in comparison to other competent students in the class) and downward (in contrast to other incompetent students in the class) (comparing with students with lesser performance than theirs).	

induced changes in higher education, such as online/hybrid learning, that challenge vocational courses such as tourism. Especially in theory-based classes, keeping students motivated is an exigent requirement. Motivation is a determinant of academic success, affecting the amount of time and effort a student devotes to study (Linehan et al., 2011). Given the widespread popularity of simulations, which have proved to increase engagement and motivation, the idea of integrating gamification elements and concepts to inspire the learners sounds attractive. Gamification in education incorporates aspects of game design and game-like experiences into the design of learning processes. Educators have adopted it to promote learning in a variety of contexts and subject areas and address related attitudes, activities and behaviours, e.g., participatory approaches, collaboration, self-guided study, assignment completion, assessment ease and effectiveness, incorporating explorative learning approaches and bolstering students' development and retention (Caponetto et al., 2014).

When it comes to boosting learners' motivation and engagement, gamification of education is an emerging method that involves integrating game-design aspects into educational settings. Because of the growing popularity of gamification and the mixed results of its application in educational contexts, the current study seeks to cast more natural light on the research in this field, focusing on empirical evidence rather than potentialities, beliefs or preferences (Sanchez et al., 2020).

Gamification techniques in education increase interaction with course material in the classroom, thus satisfying two of the primary reasons for their use—namely, they may make learning more appealing and enjoyable and, therefore, more effective (Aguiar-Castillo et al., 2020b; Barber & Smutzer, 2017). Gamification is also becoming more popular because it can foster motivation, behavioural changes, friendly competition and collaboration. As with every new and promising technology, users try it in various areas, including marketing, healthcare, human resources, training, environmental protection and well-being, to name a few examples (Dichev & Dicheva, 2017).

2.2. Gamification pedagogy in the context of COVID-19

COVID-19 has impacted negatively on every facet of human existence, including educational practices. Universities worldwide, which have been closed to avoid virus spread, have offered online or hybrid courses via internet platforms (Ye & Law, 2021). Students experienced mental fatigue due to taking too many online courses; teachers also struggled to teach through digital platforms and claimed that the new mode of instruction added to their workload (Lei & So, 2021; Seo & Kim, 2021). Despite the pandemic's negative impact on tourist education, it has pushed researchers to explore novel teaching and learning methods. Industry practitioners have designed customised virtual internships, and students have welcomed this new mode of instruction, which includes virtual lectures, discussion boards, virtual group projects, augmented/virtual reality-based learning, simulations, and gamification (Lei & So, 2021; Seo & Kim, 2021). Each is closely examined and studied academically to boost student motivation, engagement, learning experiences, and involvement. Despite this focus, 'online teaching tools' contribution to critical employability skills is little unexplored. As such, this research analyses gamification (a relatively new online teaching technique in tourist education) to determine how it leverages online instruction to promote skills.

While instructors adapt to this new mode of instruction, classroom learning must meet the critical requirements of our millennial students (Raju et al., 2021). Online/hybrid course delivery makes conveying engaging conceptual classes more difficult (Barber & Smutzer, 2017; Wilson et al., 2015). Student engagement, motivation and attention-grabbing are the main issues in online course delivery. Prolonged screen exposure, isolation, social detachment and theoretical classes drain students' energy and motivation.

Gamification is a relatively new approach to help students better grasp their learning objectives. Gamification theory claims that learning occurs more effectively when learners are having fun. Due to online/hybrid classes, universities nowadays face significant difficulties in student involvement and engagement. The use of gaming mechanics in non-game settings, such as educational use,

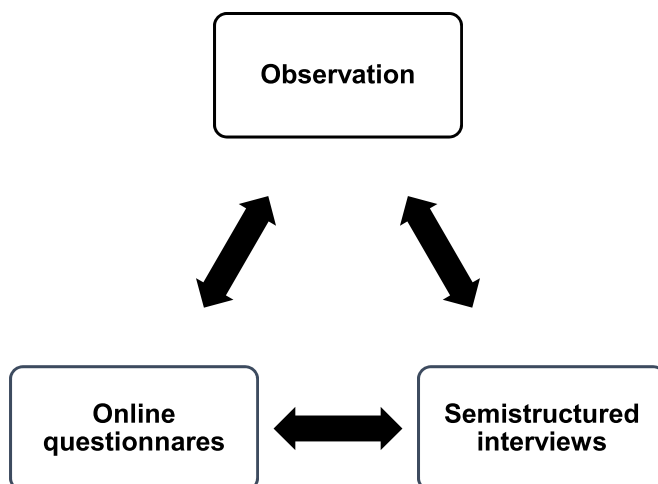


Fig. 1. Method Triangulation applied for this study.

facilitates discussions about confounding problems. Even yet, the only way to make gamification useful is to learn about it, understand how it works, and be persuaded that it is beneficial to reduce the impacts of social loneliness and boredom of online classes. To understand how gamification influences learning, it is essential to understand the circumstances, including the pitfalls of online/hybrid classes, in-depth (Lee & Hammer, 2011).

3. Methodology

This study adopted interpretive paradigm (Guba & Lincoln, 2005) and qualitative methodology (Qiu et al., 2020) to demonstrate the benefits of gamification in tourism education in the context of the COVID-19 pandemic. The data collection took place in Spring 2021 (from March to June 2021), Woosong University, Korea, including second-year, third-year, and fourth-year undergraduate students majoring in tourism and hospitality. Due to the COVID-19 pandemic and related restrictions, these students have been insisted to online classes. The freshman students (first year) were purposefully eliminated. They started college in 2020, amid a pandemic; therefore, they could not identify the difference between online and offline practices. This study was mainly focused on online quiz games as GBL. Convenience sampling served to get responses amid social-distancing regulations. The total number of informants was explained by the saturation point of the data when no new information was evolving. Data and method *triangulation* (Fig. 1) enhanced the study's trustworthiness (Carter et al., 2014; Decrop, 1999). For data triangulation, three sets of data were used (See Table 2). First, the researchers maintained observation notes throughout the study to understand student behaviour and experience. Second, online qualitative survey questionnaires consisted of open-ended questions crafted according to the study's research questions (Braun et al., 2020). These were self-administered, requesting responses in a uniform and consistent format. Because participants respond in their own words rather than choosing a response from predefined choices, entirely qualitative surveys can generate diverse and detailed accounts of the type of sense-making in which qualitative researchers are typically interested, namely, participants' individual opinions, narratives, strategies, positionings and discourses (Braun et al., 2013). Students produced 56 responses. Third, researchers used semistructured interviews (25) to gather their perspectives.

Data analysis used reflexive thematic analysis (Braun & Clarke, 2019), a tool for analysing qualitative data, to address comprehensive or specific research issues. The reflexive thematic analysis (RTA) begins with research questions or a theme and an investigation strategy. In terms of topic or theme, RTA may describe the 'lived experiences of certain social groups or analyse the "factors" that impact, underlie, or contextualise specific processes or occurrences' (Braun & Clarke, 2021).

4. Findings and discussion

The data analysis identified five themes. The main themes identified are a) Enhancing student engagement, participation and motivation; b) Adding learning-experience value; c) Embracing diversity and inclusion; d) Simplifying assessment and feedback; e) Nurturing employability skills. Some excerpts from participants appear all through this section to represent the research participants' 'voice'.

4.1. Enhancing student engagement, participation, and motivation

Student motivation is a significant factor in determining how students respond to educational activities. Well-integrated content and context of learning outcomes and activities will boost the quality of the experience in many ways. As previous studies (Buckley & Doyle, 2016; Dewi, 2020, pp. 405–420; Sanchez et al., 2020; Sigala, 2020) show, incorporating gamification may inspire some students and encourage others, but it can demotivate others still. No matter the effects of gamified learning, it does not mean it is useless; instead, it means we must use gamified learning in conjunction with various learning interventions, selected in a way that does not favour one kind of learner over another. This study underlines the same point by showing unanimous agreement among the participants from four different courses and three levels of undergraduate studies. The term 'study motivation' varies; it can be intrinsic or extrinsic. Some study for fun or to fulfil their passion for learning, while other learners have a reward in mind (such as a well-paying job or financial gain). One of gamification's best features is its ability to utilise interactive media to monitor and generally improve student engagement and involvement (Buckley & Doyle, 2016; Kapp, 2013). This research offers evidence favouring this idea, with the critical note that perhaps the connection is not as simple as 'gamification enhances participation. Instead, there is evidence for boosting both intrinsic and extrinsic motivation, making learning fun and interesting. Also, it applies to game-based learning in tourism; HE can significantly impact student satisfaction. As the participant's state:

Playing a game is much easier and more fun; it helps me to gain in-depth understandings. (S7, Female, 2nd Year)

Table 2
Data sources and codes.

Data Sources	Codes Assigned
1) Observation Notes (March to June 2021)	OB- number of notes
2) Online Surveys (n156)	OS- number
3) Semi-structured Interviews (n35)	SI- number

I had an excellent time studying the courses and making the classes more interesting through the activities. (S19, Female, 3rd Year)

The conventional definitions of student engagement and motivational aspects require revision in the present context. The psychological impacts of an isolated learning atmosphere and a virtual environment redefine these terminologies. Studies identified that isolation and lack of a social circle affect scholars detrimentally. Gamified learning class activities help to minimise these damaging blows from online classes. Virtual collaboration of teams, time-bound activities, humorous designs were all helpful. Prolonged screen time and fatigue are the main issues functioning as detrimental aspects of online classes. Students lose concentration and attention due to the nature of online delivery and other electronic gadgets near them, such as mobile phones. The findings of this study indicate that game-centric learning improves attention span.

Those activities lessened up the studied boredom and motivated students in attending the class lecture spontaneously. (S56, Male, 2nd Year)

I enjoy these activities, and it helps me concentrate more on the class; having entertainment in the online classes can boost the mood of students who are already bored with droning classes. (S91, Male, 3rd Year)

In this pandemic, having entertainment in online classes can boost students who are already bored with monotonous classes. Moreover, activities such as games can make the classes more exciting and easier to understand. (S34, Female, 2nd Year)

It is not easy to focus for a long time on lecturing. One of the 2nd students stated (ON, Week 9) that 'lecture is difficult to keep in our mind for a long time, games and interactive classes are useful to repeat the topic right after the lecture'.

4.2. Addition of learning-experience value

- *More engagement with the study content*

Gamification in online classes enables learners to interact with the material in a natural, casual classroom environment. When students are enthusiastic about their studies, they are more likely to remember information. The participants said, 'Learning something by playing a game is much easier and more fun (OS 9); 'I liked the games the most as they helped me learn faster' (OS 96); '... helps us memorise our context better' (OS 10); 'implementation of games made the learning process much easier and effective compared to the classes where professors give lectures' (OS 100); 'I found them [a] vital way of learning the subject'.

- *Fun, enjoyment, and efficient learning*

Gamification makes learning more pleasant, and as a result, learners are much more likely to participate in an exciting and enjoyable classroom environment than in a tedious one. One of gamification's most significant benefits is that it renders learning more interactive and instructive, owing mainly to its interactive nature. Role-playing and competitive aspects offer an immersive dimension that, when implemented well, would more effectively make learning enjoyable. Fun increases motivation, which influences everything individuals learn, as well as how much they memorise. Learning is not a one-time occurrence. If the experience is enjoyable, learners will remain curious and return for more. Most of the students used terminologies like 'fantastic, enjoyable, fun, engaging, motivating, to express their experiences. Also, the necessary competition catalysed the participation rate positively. Many students expressed their interest in games since it motivates them to participate in the class activities. A considerable number of them said games are a leisurely, entertaining, and innovative way of learning.

I found them an essential way of learning the subject. (OS8)

Learn new things in a significant way, and it is fun and easy to remember the content of the class. (SI 37, Female, 3rd Year student)

Through the activities, I had an excellent time studying the courses. (OS 45)

Learning something by playing a game is much easier and more fun. (OS 51)

Play (healthy) competitive games the more it motivates us to learn and study. Since it is a quiz game, it does not give us an enormous burden but helps us memorise our context better. (SI 33, Female, 3rd Year)

I think it is a fun and knowledgeable thing that you can apply in the education field. Students can have fun and learn things. (SI 33, Female, 3rd Year)

Education plus enjoyment is a potent combination (OS 11)

Moreover, much evidence supports the views of [Majuri et al. \(2018\)](#) that game-induced classes enhance student participation levels.

I think the games and learning activities between the classes are entertaining and challenging, and it helps professors get full attention from students. Also, students are more involved and show their participation during the activities. (SI 30, Female, 3rd Year)

In the present scenario, these findings are very significant. If teachers can design games by adding emotionally charged content,

they will make the learning environment memorable, enjoyable and challenging. Impulses that are impassioned immediately capture people's attention. Additionally, the brain recalls emotional reactions better than any other kind of experience. Using emotional reaction in e-learning can make this work for both students and teachers. Such resources as captivating sales scenarios, multimedia e-content and aesthetically appealing displays can elicit emotion, attempt to connect with students emotionally and learn more and better. Create startling, stunning, or unexpected moments that immediately capture your learner's attention (Ford, 2014).

• *Enhanced participation and motivation through the in-built competition*

Competition motivates many individuals. Gamification enables competitiveness with all other participants for top grades, rewards and leader board positions.

Play (healthy) competitive games the more it motivates us to learn and study, especially when we try to think and act as fast as possible to win the game. We have created a healthy competitive atmosphere within the class (OS, Male, 4th Year).

These findings agree with many theories such as goal-setting theory (Kapp, 2013); self-efficacy theory (Bandura, 1982); self-determination theory (Ryan & Deci, 2000); social-comparison theory (Festinger, 1954). Building up and enriching the quality of the learning experience from these foundational conceptual frameworks is vital.

4.3. Embrace diversity and inclusion

One finding demonstrates an unexpected outcome of this study, significant to manage diversity in the classroom, especially with multinational, multilingualistic and multicultural cohorts. Diversification has become a sensitive issue in the hospitality and tourism industries. Diversity refers to the recognition of each person's uniqueness and the acceptance of our distinct characteristics. The study of students' perspectives on and perceptions of diversity and practical classroom resources for diversity education are contributing factors (Rivera, 2016). For non-native English speakers, some activities (e.g. presentations and discussions) can sound discriminatory due to their developing language skills. However, this study found that gamification can minimise the feeling of discrimination. Many participants, especially students past their second year of undergraduate study, expressed:

It helps me to be a part of the class. My first language is not English, and I am shy to talk. These games and quizzes boost my confidence and participation because I cannot feel discriminated against as I always perform well. (SI-7, Female, 2nd Year)

As a result of modern contemporary society's great variety and multiculturalism, fostering diversity and tolerance in the classroom has become a critical objective for elementary, secondary, and higher education educators. Developing empathic and open-minded personalities may have a significant effect on both learners and society.

Table 3

Explaining gamification and embedded employability skills.

We identified employability skills.	Student's perspectives	Remarks
Problem-solving/decision-making/time management	- I liked the games the most as they helped me learn faster and created a healthy competitive atmosphere within the class, especially when we tried our best to think and act as fast as possible to win the game. - These activities enabled me to think fast and critically. - I need to think quickly and answer; otherwise, my classmates will override me on the leaderboards. Every question is in different contexts, which enables my adaptability; I must be like this to get the first three positions. - I experienced how to become fast and improved my critical thinking. - Time-bound activities are helpful to enhance critical thinking. - Those activities taught me about tricky questions and how they need to be solved.	Quick decision-making is a part of service industries right now, especially in the digital world. Time management is fundamental for gamification, for instance, quizzes.
Critical thinking and adaptability	- Those were like playing the rapid-fire round, which makes me think quickly and answer. Those activities taught me about tricky questions and how they need to be solved. - All of those games and quizzes were useful. I found them an essential way of learning the subject critically. - This game is perfect to learn very quickly. That is why I love to play, but sometimes I get confused because of time limitations. Time-bound activities are helpful to enhance critical thinking	It is significant to design games linked with the learning objectives of the course. Constantly pursue and thoroughly weigh the benefits of novel approaches to find the answer within the set limit of time and with quick adaptation to the questions in various contexts. Game-based learning effectively alters objectives, priorities, activities or emphases in response to different circumstances

4.4. Simplifying assessment and feedback

Online classes, large cohorts, and increased learning activities to keep students active require considerable time. Assessment and individual feedback are time-consuming and tedious. Gamification (e.g., quizzes) helps teachers in many ways. As most games are based on artificial intelligence technology, gamification generates individualised analysis that significantly impacts personalised learning. Unlike traditional methods, game-based activities are easy to use to assess and support individuals.

4.5. Nurturing employability skills

One of the challenges COVID-19 has posed for tourism HE is the rapidly changing employability skills. The skill gaps are increasing over the pandemic years, furthered by the lower number of job vacancies, premium skill requirements, a massive shift from tourism-related jobs and technological advancements. Therefore, the inevitable upskilling/reskilling needs support from learning activities. Recent studies (Limniou et al., 2021; Sato et al., 2021) identify additional employability-skill requirements. Arguably, these skills are not as 'new' as they seem; however, they are the modified version of conventional soft/transferrable skills upon which the current curriculum stands. The new requirements are the virtualised versions—for example, virtual collaboration, virtual tools, adaptability, flexibility. Professional skills acquired via various academic endeavours are most notably those that require student activity or participation.

In contrast to disciplinary talents, employability skills relate to a collection of characteristics associated with people who have received professional training, precisely the qualities that employers seek in a candidate, above technological or disciplinary skills. The measure of individual performance takes place against a set of characteristics that enable employees to operate at their best, in line with the expectations and requirements of a competent professional, in their personal lives and careers (Flores et al., 2020). This study underlines gamification nurturing these skills in various ways (See Table 3). This is significant for current online/hybrid course delivery practices. As the participants stated, gamification creates an immersive learning experience.

5. Conclusion

This study examines the role of gamification in tourism higher education in the context of COVID-19 pandemic-induced disruptions in conventional teaching and learning practices. Vocational courses like tourism often demand interactive, experiential platforms to deliver theoretical understandings conveniently. However, the trendy online classes have their drawbacks that should be addressed and minimised for the future long-run of education practices in this unprecedented and unpredicted context. The main issues with online classes are the lack of motivation, social isolation, diminished student engagement, distractions, less participation and attention and incompetent learning experience. Educational technologies can significantly address all these issues if the course content/delivery is designed creatively.

Gamification is such a tool, used in many science/engineering/IT disciplines and proved efficient. Therefore, this study explores the benefits, impacts and perspectives of gamification in tourism higher education. This study uses a qualitative research design and data/method triangulation to reveal the multifaceted benefits of gamification link with online teaching, thus enriching the current theoretical understandings.

First, this study emphasises the ability of game-based activities to create an interactive, fun, challenging and competitive learning ambience, lacking in regular online classes. Second, well-designed games boost student motivation and contribute to significantly higher levels of participation. Healthy competitions catalyse student drive. Third, the enjoyable, fun-filled activities enhance the learning experience, simplify the complicated lessons and make them more memorable. Gaming has also been characterised as forming a positive learning environment where students acquire knowledge and skills, interact with real-life situations, review material and support adequate memory. Fourth, gamification was found to help embrace diversity and increase inclusion in the class. This is evident in this study, as the classes were diverse, with multinational, multilingual students. Teaching them to embrace diversity, including all learners and pursue equality is critical for educating and fostering an inclusive environment and society. The term 'diversity education' refers to the process of recognising a variety of variables in classrooms. Inclusive education entails accepting diversity. Educating for equality enables distinctions to change our thinking, teaching, learning and acting, to treat all experiences and modes fairly and justly. This finding makes this study valuable and novel. Finally, gamification supports cultivating employability skills in an embedded manner. This is a substantial outcome of this study; it identifies game-based activities and promotes five critical skill sets (i.e., flexibility, adaptability, virtual collaboration, critical thinking, decision-making), predicted to be the premium skills for the post-COVID-19 era.

In terms of implications, this study provides valuable insights into the benefits of gamification for enhancing the quality of online classes by contributing aspects of student engagement, motivation, creative learning experience, humanising diversity and inclusion and fostering the appropriate employability skills. These insights are helpful for teachers and policymakers in developing innovative and exciting learning activities and generating digitally and professionally equipped future graduates to serve the tourism and hospitality industry better than ever.

Furthermore, this study opens several themes for future researchers. Due to the digital transformation and ongoing challenges to face-to-face classes, online platforms will likely continue for at least a couple of years. Therefore, understand other emerging educational technologies, such as virtual reality, augmented reality, and gamification. This study considered only the benefits of gamification. Hence, understanding the possible limitations and debilitations could be a perspective for future research.

Moreover, all these benefits can be achieved only if the learning content and gamification elements are a faultless combination.

That immensely depends upon the skills and experience of the teacher. In this sense, understanding academics' perceptions concerning gamification are essential to help set the upskilling/reskilling parameters of upcoming faculty development programmes across the globe.

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