Activating a Directed Motivational Current Through a Gamified Extracurricular Activity in Higher Education: A Pilot Study

Amel M. Shoaib

(amshoaib@kau.edu.sa)

King Abdulaziz University

The study examines the occurrence of a Directed Motivational Current (DMC) in a task-based gamified extracurricular activity in a Saudi Arabian university. An explanatory longitudinal approach was administered to detect changes to the motivational disposition and engagement of twenty-eight English majors throughout a three-week period. The study utilized multiple data sources including pre/post questionnaires, focus groups, individual virtual interviews, and BlackBoard Ultra analytics. The results of the pilot study indicate that when a gamified activity outside a program's curricula is DMC induced, it can enhance the sense of belonging, encourage engagement, increase eudaimonistic sensations, develop linguistic and non-linguistic skills, and lead to personal benefits beyond the game, especially creativity and confidence. These activities encourage personalized and self-directed learning through entertainment, and therefore can improve the overall educational experience for students.

Keywords: Directed Motivational Current, Explanatory Longitudinal Approach, Gamified Extracurricular Activity, Saudi Arabia

INTRODUCTION

The field of Second Language (L2) motivation has been active for decades and focuses on investigating the psychological construct of motivation. Dörnyei and Ushioda (2011) have categorized the development of this type of motivation throughout different time periods. These shifts evolved quickly through different stages: social psychological, cognitive situated, process-oriented, and the L2 self. One such stage was the socio-dynamic period in early 2000 which led to the development the Directed Motivational Current (DMC) in L2 research (Dörnyei et al., 2015; Dörnyei et al., 2014; Muir & Dörnyei, 2013). The theory investigates motivation from a different perspective as it promotes ongoing long-term behavior that goes beyond normal drives. Through the endurance of self-propelling motivational means, individuals or groups can reach highly valued

end goals. Although focus is mainly on classroom projects, it has the potential to be used in other L2 learning contexts as well. Therefore, the purpose of this pilot study is to explore and expand the body of knowledge on the DMC construct through its pedogeological applicability in a higher educational setting. To achieve this goal, the paper will discuss the theory and its connection to extracurricular activities and gamification in education. It then presents the current study, which validates the framework's ability to be artificially induced into a gamified extracurricular activity in an English as a foreign language (EFL) context.

LITERATURE REVIEW

Directed Motivational Currents

Developed through well-known motivational theories in both L2 and positive psychology research, the DMC framework has been examined both theoretically and empirically (Dörnyei et al., 2016). A DMC's theoretical underpinnings have strong ties to many prominent theories such as self-determination, goal, flow, attribution, and L2 motivational self-theories to name a few. Its creators used vision and action plans to amplify the energy exerted towards a goal (Dörnyei et al., 2015). Thus, it has the capacity to override distractions and channel behavior towards the attainment of a specific target. A DMC is characterized as having three prominent features: a highly valued goal, a facilitative structure, and differing sources of positive emotionality (Dörnyei et al., 2014). While much of the research into DMC is qualitative in nature, it is still a fairly recent theory and in need of more investigation, especially from a mixed methods perspective.

One of the first studies using DMC focused on the experience of immigrants learning a second language (Henry et al., 2015). Their qualitative results provided the first validation for the theory and initiated empirical interest in DMCs. Later research was also based on small sample sizes and personal reports, reaching similar conclusions (Safdari & Maftoon, 2017; Zarrinabadi et al., 2019). However, a study by Ibrahim (2017) explored the framework in more depth, identified a number of DMC triggers, and linked learning goals to future visions of personal growth. Only one quantitative research appeared in 2018 and was able to identify the existence of individual and group DMCs (Hashimoto, 2018). These initial studies mostly relied on qualitative data as the topic was still considered under-researched at this stage. Later, more research started to emerge that studied more participants, pedogeological implications, and utilized more mixed methods approaches, with some reporting success in initiating a DMC in learners and improved language performance (Dastgahian & Ghonsooly, 2018). Others, explored the motivational construct in relation to a specific psychological factor such as self-efficacy which was found to increase during powerful motivational experiences (Pietluch, 2018) or identified DMC triggers and put forward pedogeological implications (Gümüş, 2019). A study by Ibrahim and Al-Hoorie (2019) even investigated the conditions that generate a DMC and provide educators with pedological ideas on how to create out-of-class activities which extended beyond what was normally being researched at the time. In 2020, Muir broke the domination of qualitative methods in the field and produced a DMC disposition questionnaire for a large-scale study which helped in the identification of

language learners' motivational currents at an international scale. She also discussed group DMC interventions that can be applied in language classrooms. In comparison, the most recent quantitative studies are not large but are still able to fill small gaps in the literature. Some of them predicted differences in how individual DMCs were experienced through learners' personality traits (Sak, 2021). Pedagogically, one study found that motivational currents happened more in classroom settings where English majors experienced them slightly differently from other majors (Li et al., 2021) while another one investigated its relation to informal language learning environments and highlighted its affective importance to learners (Xodabande & Babaii, 2021). It is apparent that research is now exploring the framework in more depth and through different approaches and settings. More importantly, it is clear that studies are shifting toward pedagogical environments and looking into potential intervention ideas not always in the classroom. In spite of this, DMCs and extracurricular activities have only been dealt with slightly despite their possible impact on language learners. Thus, it is equally important to explore their influence in educational settings.

Extracurricular Activities
The literature has proven that out-of-class activities are important to learners and their educational experience (Cole et al., 2007). According to Zakhir (2019), they can be defined in L2 settings as "Artistic, mental and physical activities that are organized by teachers outside the regular classroom curriculum, but closely associated with students' learning of English" (p. 3). They are usually under the supervision of an educator who guides students towards a specific skill or behavior (Simoncini & Caltabiano, 2012). Moreover, they come in many types such as clubs, fraternities, societies (Buckley & Lee, 2021), student councils, volunteer work, sports, (Eccles & Barber, 1999), and even games (Subhash & Cudney, 2018). These activities have been proven to be necessary for student growth (Holt et al., 2012). Research on the topic has identified a number of psychological and cognitive benefits for student participation in such groups. They can increase learners' engagement and motivation (Mahoney et al., 2005; You, 2020), enhance feelings of self-efficacy (Griffiths et al., 2021) and even improve personality and intelligence (Reeves, 2008). Socially, they have the potential to help develop peer relations (Fredricks & Simpkins, 2013) and enhance language students' communicative competence (Sandal et al., 2020). Research has also found that these types of out-of-class activities can also promote interpersonal skills and professional behavior (Jamal, 2012; Rubin et al., 2002) and even lead to enhanced intercultural learner competence (Liu, 2016).

The importance of extracurricular activity participation in learning a foreign language has also been investigated in the literature. Van Marsenille (2015) argues that it is one of the different ways of helping L2 students acquire a target language. It can provide "an additional milieu for language practice" outside the program curriculum (Makarova & Reva, 2017, p. 59). Moreover, this type of informal learning can enhance autonomy and foster subtle changes in students' self-identities (Gao, 2008) especially since it can offer opportunities for creating authentic language use situations (Avdeyeva et al., 2005 cited in Reva, 2012). A few researchers have even found that

these activities can increase English self-development (Phothongsunan, 2019) and help learners communicate better in the language (Ginosyan et al., 2019). Pontes and Shimazumi (2015) argue that when out-of-class projects are authentic, students not only enjoy them, but it can also enhance their language proficiency. Finally, these activities have also been found to help strengthen time management skills and even increase creativity in foreign language learning environments (Reva, 2012). In summary, they have many benefits that seem to overlap with many of the advantages of being in a DMC specifically the psychological and skill-based outcomes. Thus, it can be logical to surmise that when combined with gamification, they can lead to even more educational and personal gains.

Gamification in education is not a new concept and is a field that is gaining popularity in higher education (Shuash et al., 2020). Despite its varied forms and different design principles, it can broadly be defined as the use of game elements and mechanics in non-game contexts to promote specific outcomes (Sajinčič et al., 2019). Research has identified that game-based learning environments support learning and promote student engagement (Sabourin & Lester, 2014). Bamford and Heugh (2020) argue that gamification can be beneficial to students, especially with the rapid shift to online learning as the result of the COVID-19 pandemic. It can enhance wellbeing, strengthen the sense of belonging to the educational institute, reduce feelings of isolation, and encourage creativity. According to Subhash and Cudney (2018) comprehensive literature review on gamification in higher education, while not all studies found that it improved student performance, it clearly enhanced perceived learning and enjoyment.

Usually, gamified language learning experiences are associated with tasks. According to Willis (1996), a task is an activity where learners use the target language for a communicative purpose/goal to achieve an outcome. Using tasks can lead to high self-efficacy levels in learners (Koutropoulos & Porter, 2017). It has also been found to increase motivation (Ellis, 2003). Brophy (2005) asserts that the latter psychological state can help learners complete given tasks or reach desired goals. Therefore, it can be inferred that tasks can enable students to use a foreign language meaningfully. This is in accordance with Nunan's (2004) claim that the use of language is more important than language practice. Through tasks in gamified environments, students are provided with opportunities to use prior knowledge communicatively as it is an important factor influencing their learning and achievement (Ellis, 2003). In addition to the latter, tasks can engage learners and are usually based on both intrinsic and extrinsic motivators that complement each other. Intrinsically, motivating tasks are used to tap into gamers' sense of autonomy, purpose, and need for mastery (Burke, 2014). Contrastingly, extrinsic ones are used to entice learners' interest in a task they might not view as valuable or feel is boring but they should be used sparingly when tasks are interesting (Kapp, 2012). According to Koutropoulos and Porter (2017), for gamified learning experiences to be considered positive, it should abide an escalation process where gamers move

from easy to difficult levels to reach high self-efficacy, aiming at cooperative or competitive engagement depending on the game design.

It is a well-known fact that professional and personal development happens mostly during students' time at university. Thus, when gamification is combined with extracurricular activities it can provide students with a different kind of learning experience. According to Bryson and Hand (2008), there should be more to higher education institutions than qualifications. Therefore, participation in these out-of-class experiences through a gamified activity should be encouraged as they have the potential to improve the overall educational experience (Bamford & Heugh, 2020). However, no studies have been identified in recent literature that investigate the idea of activating a DMC through a technology-based gamified intervention in a higher educational institution. Thus, it is important to understand the role gamified extracurricular activities can play in EFL higher education contexts. This pilot study was created to fill this gap in the literature by examining the following research questions:

1. How did the design of the game initiate and maintain a Directed Motivational Current?
2. What kind of impact did a gamified extracurricular activity have on the students?
3. What is the intrinsic value of participating in a gamifying activity based on a DMC?

METHODOLOGY
Explanatory Sequential Mixed-Methods Approach
This pilot study follows an explanatory sequential mixed-methods approach that utilizes both quantitative and qualitative data. Although different, both research methods follow similar underlying logic but allow for two different viewpoints (Mahoney & Goertz, 2006). Quantitative research is conducted first, and it is then followed by qualitative research to explain the phenomena in more detail (Creswell, 2014). Triangulation produces valuable data and strengthens validity (Yeasmin & Rahman, 2012), especially if both approaches complement each other (Creamer & Schoonenboom, 2018) as has been used to validate the data in this study. Quantitatively, the research draws on two data types to help understand the state of a DMC, utilizing pre/post web-based questionnaires and BlackBoard Ultra analytics as a first phase. In total, 49 questions were used in the questionnaires: six demographic questions and 43 DMC theory related questions. These were used to test the hypothesis: There is a statistically significant difference between the means representing EFL students' engagement and motivation pre/post their exposure to a gamified extracurricular English instruction experience delivered via the official LMS at KAU. A pilot test on three students was performed to determine the validity of the adequacy of the items and eliminate confusion, especially since the items were in English. Regarding the BlackBoard Ultra analytics, three types of data were obtained from BlackBoard Ultra. The total number of student interactions while playing the game were recorded. In addition, daily activity percentages were also obtained from the LMS. Finally, an excel sheet for every student with their daily activity percentages and activity-per-item were also extracted from the platform. Together with the other data sources, they helped ensure that the study findings were grounded in participant experiences

and at the same time, enabled a stronger understanding and interpretation of the data through different sources (Yeasmin & Rahman, 2012). Statistical correlation analysis was utilized to understand the quantitative data while the qualitative data was studied using Dedoose (Version 8.0.35), a mixed-methods web-based application that analyzes different types of data sources (Dedoose, 2018).

Additionally, two focus groups were conducted (FG1 and FG2) with twelve students (7 and 5 respectfully) and three individual interviews (ID) with three players (a gamer who only reached level 2, a gamer who completed the game but did not win, and one of the four winners). The 51 questions in the guide were based on the theoretical underpinnings of the DMC theory. Semi-structured interviews were found useful for enabling a deeper understanding of DMC and providing a vivid account of participant perception. Because of the geographic constraints due to the pandemic, the interviews were conducted virtually using the online meeting application 'Zoom.' This type of synchronous communication is advantageous as it allows researchers to explore a social phenomenon from any location, with live interaction between participants revealing important aspects of a topic (Abrams & Gaiser, 2017). The focus groups were held in English although the students were given the option to speak in the language of their choice. They were then transcribed and analyzed using the Dedoose software. Finally, all the gamers gave their consent via a signed release form to partake in the study and for the publication of any game relevant material. Ethical approval to conduct the study was granted by the King Abdulaziz University ethics review board. Finally, for anonymity, the participants were assigned a pseudonym.

Euro-D Tasks Game

The data collected was used to investigate the student gamers' engagement with a newly created EFL-task-based online extracurricular game titled the Euro-D Tasks Game (EDTG), which was being piloted prior to its official release in 2022. It was created on King Abdulaziz University's (KAU) official LMS (BlackBoard Ultra) during the onset of COVID-19 in 2020. The game was initially designed to take place on campus but had to be altered to fit an online platform because of the pandemic. In total, 28 students (a mix of different levels: 2nd year (3 students), 3rd year (21 students), & 4th year (6 students)], of mixed age groups [19-22years old], and different English language proficiency [intermediate (1 student), high intermediate (21 students), advanced (6 students)] participated in the study. To play the game, the students were required to complete a web-based questionnaire before and after the game and optionally participate in the focus group after the game ended.

The concept was to expose students to the English language and culture, especially western, outside the context of their textbooks via an extracurricular activity. Similar to other games but with an educational perspective, EDTG was also made up of rules, instructions, prizes, certificates, and accompanying social media accounts. The game consisted of three levels with specific tasks that needed to be accomplished in order to move between each level. With every ascend, the game becomes more challenging: Level One (10 tasks), Level Two (7 tasks), Level Three (5 tasks), and the Ultimate Task (1 task). For each task, there is a task teaser, a task description, task instruction, and task help links. With every upward move, each student receives an online badge. If, for any

reason, a student decides to stop playing before reaching the final stage, she receives a certificate of participation. An online mascot (Marshmallow the cat) was created to entice gamers and give EDTG a gaming feel (i.e., to issue badges, to congratulate winners, for notifications, used in social media accounts, etc.). The tasks in the game were evaluated by three English instructors using a specifically designed rubric. Only after the gamers reach the second level, does the game start to become competitive. Gamers are required to be as creative as possible with their task submissions as creativity was a major criterion in choosing the top three winners and the ultimate prize winner. The idea was to have several winners as that would motivate more players to continue playing until the end.

ANALYSIS

Gamified extracurricular activities have found a place within higher education as they can play a big part in EFL students' academic life experience, specifically if designed and implemented well. This explanatory mixed-methods approach describes how a gamified activity was created to activate a DMC and keep 26 out of the 28 players engaged until the end of the game. It is through the students' experience, told through multiple data sources, that a full explanation into what took place was identified and later discussed. Therefore, the results section will be divided into three main parts: the game design, the impact it had on the players, and the intrinsic value of game participation.

Game Design

The gamified extracurricular activity used in this study incorporated into its design the underlying elements of a DMC. The first being its timeframe which in this case, was three weeks, which all the students agreed was appropriate, as one participant explains: "*We had a week to finish each group of tasks, so I think it was enough time to get your things together and figure out what you want to post*" (P1: FG1). Most participants echoed similar comments regarding the duration of the game claiming that they were able to complete the required tasks and upload them on time. The students also commented that having it on BlackBoard was a good idea. As P1 (ID) explains: "*I loved that that it was on BlackBoard. Everything was on BlackBoard, my courses, my homework, my assignments, and my tasks so having it on BlackBoard was perfect. … This was an all in one thing where everything I need is in one place.*" The rapid shift to digital teaching because of the pandemic familiarized students with this platform and it explains the reason many of them were comfortable with it being used for the game. The students also had good experiences with the tasks the game was built on. They stated that they enjoyed them as they were "*Pretty creative and they're kind of all over the place but in a good way. Like they didn't feel repetitive in anyway which was really cool!*" (P1: FG1) and made their "*brain juices flow!*" (P1: FG2). All of them commented on the fact that they enjoyed the escalation of the tasks as P2 (FG2) explains: "*I like how the levels developed in difficulty!*" In addition, many reported that there was a balance in the way the tasks did not exceed the different ability levels of the gamers as they "*were enjoyable and generally easy to do for all of us*" (P1: FG2).

Interestingly though, when comparing how the students felt about language proficiency and virtual learning environments via the pre/post questionnaires, it was apparent that something changed. The results point to a strong change (+0.67) in correlation between the way the players felt about their abilities and their self-confidence. It was clear from the data that confidence in their skills increased after playing the game. It could be because they not only thought they had the skills that matched the demands of the tasks, but they also believed they had a challenge-skill balance. A comment made by one of the students during the focus group interview sheds even more light on this issue through a simple explanation: "*It was easy even though I didn't think it was going to be easy before we started to play the game. I thought it was going to exceed my level in language, but it didn't. It was challenging but easy*!" (P2: FG1). The gamers were introduced to the game and were also shown a short, animated video on how to play it using a sample task similar to the ones used in the pilot game. However, it was apparent that they did not fully understand the game until they actually started to play it.

Another design element of the game that most of the participants mentioned is the autonomy they were given with the tasks. As they were not adhering to a specific way to creating something but doing it in their "*own way*" (P3: FG1). This autonomy gave them the freedom to be as creative as they wanted to be. Although it must be mentioned that there were preferences when it came to the tasks with some being perceived as more pleasurable than others. One student claimed she never heard of *"giving your house a name instead of a number"* and she reported having struggled with the idea until she researched it and understood the concept behind the naming (P2: ID). Interestingly, even when the players did not like a task or felt they were going into uncharted areas, they still had fun because it was "*all about being in the game and enjoying the experience*" (P3: ID). Moreover, like most games, this one also had a competitive side to it. However, it was only after the gamers passed Levels One and Two. There were some mixed results regarding this structure style. While some students believed it helped having it structured this way, others did not. One of the students who admits having low self-confidence explains: "*It really helped that it wasn't really competitive from the get-go. I had my time and I had the ability to be creative without being scared I would be looking less than the other participants.*" (P3: FG2). Others, believed if it was competitive from Level One, it would have made EDTG feel "*challenging*" as that is "*a very important element in gaming*" (P2: FG2).

In addition, for most level-based games, there should be some way gamers advance from one stage to the next. In EDTG, every time a gamer completed the designated tasks of a specific level, they were allowed access to the next one. One of the study participants explains this in detail: "*Every time I finished and upload a task, I would get a check next to the task and then when I finish all the tasks for that level, I would get a cute notification from Marshmallow that told me I was moving on to the next level and I also got a badge. You feel, wow I did something cool. I am*

moving on to the next level and I have something to prove it" (P1: ID). These types of progress checks and the extrinsic rewards that came with them were welcomed by most of the students. When the participants related the reasons why they kept playing, a recurring theme came up and that was as P1 (FG2) explains: "*We knew we were going to get something out of it in the end, whether it was the fun or something as simple as a badge or a certificate or even the prizes... it was what kept everybody going.*" When asked about the badges, most of them recommended real ones instead of the digital ones "*to keep as a keepsake*" (P1: FG1). Moreover, many of them claimed that even if there were no badges, they would still have played the game as they were enjoying the experience and as one student explains: "*I like to participate in the fun things that our department does because they are always fun*" (P4: FG1). Some students viewed it both as entertaining and also as a competition as P5 explains: "*I am very competitive person, and I don't really like to quit at all. So, every time I think about quitting, I say to myself "No never!" Plus, I am having so much fun so no I will not quit!"* (FG1).

Finally, the game was shifted to a digital platform because of the pandemic. All of the students mentioned that lockdown was a stressful time. The situation at home was new and the educational experience was different and demanding. They had to learn to cope quickly and find ways to bring normality back into their lives. One student explains: *"One of the reasons I played the game was because I wanted to bring back some of the normal I knew before the pandemic. You know, the university environment and all the activities and socializing. I was going through a tough time ... I needed a good distraction*" (P1: ID). Other reasons the students identified for playing were being part of the pilot study, summer vacation, their love of games, not wanting to miss out on a department activity, or just bored. A few of the students even had sensory visions about the game even before it started as P2, one of the winners, explains: "*The moment I knew it was a game, I just imagined myself entering it, playing it, and winning. I am so competitive*" (ID). For others, it was about wanting to impress significant others in their life "*I could just see myself telling my family and friends about what I am doing, how excited I am and how I accomplished so many things*" (P3: ID).

Affective Value of the Game

During the game, the students experienced emotions that were prominent features of a DMC. The three most significant were: signs of being in a surge, the motivation the game gave them, and the engagement they had with the game. These affective emotions allowed the students to experience eudaimonic well-being sensations that made them very happy and content. The first one relates to the signs of being in a motivational current. One student explains this: "*I felt I was unwinding. It just helped me relax in my zone*" (P2: FG2). Many of the gamers reported being in total relaxation with themselves and the tasks they were working on. One gamer even called it "*therapeutic*" as it was the only time she gave herself to just enjoy her own company and do something relaxing especially with all the courses she was taking and the COVID-19 situation (P3:

ID). Another student described it as "*a good distraction that gave me joy and tickled my happy hormone*" and made her "*lose track of time because sometimes I get too involved in the tasks because I really enjoyed doing them*" (P4: FG2). One of the gamers explained that she was "*overwhelmed with all the assignments and all the studies*" that she had to do but playing the game was her "*escape" and "me time*" (P6: FG1). It was where she wanted to be. Another student even differentiated her time with the tasks from other activities. She did not consider them "*the kind of breaks you have throughout the day but the kind of break where you forget everything and just focus on one thing. I had so many things going on you know my courses, I had to study, I was training, my time was so tight and every minute counted. So, with the game it was like a break from all of this*!" (P1: ID). It was apparent the students had the hallmark signs of being in a DMC.

Another affective state was the feeling of being motivated by the game itself. Most of the students admitted numerous times that playing the game did something to them as P2 (ID) explains: "*I would wake up and feel motivated that I have something to do and it's fun.*" One student even claimed that the game made her feel "*a lot of beautiful feelings*" throughout her day which affected not only her mood but also her well-being (P5: FG1). The final factor was engagement with the game. The time students spent inside the game either going over task instructions and information or uploading material is an important indicator of academic engagement. Figure 1 below illustrates that from a weekly perspective, mid-week on Tuesdays and the onset of the activities on Sundays recorded the highest hours (total time spent on BlackBoard in the game calculated per student). Fridays recorded the lowest time as it is the day after every task level deadline submission.

Figure 1: Students' activity by day
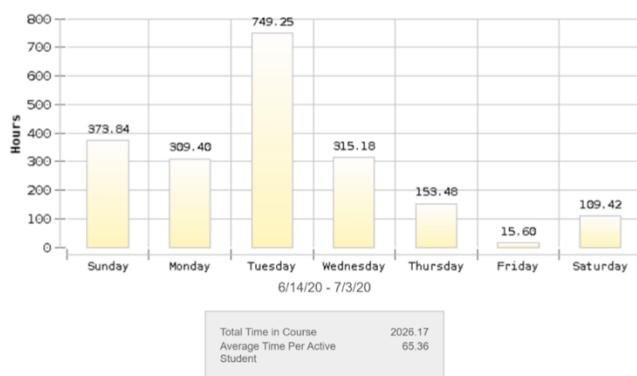
One more important indicator for engagement is the students' total interactions. It is another metric that provides a different perspective for academic engagement with the game. Figure 2 below illustrates the 28 students' total interactions inside game content areas. The students' BlackBoard IDs are on the y axis while the number of interactions is represented by the x axis. After computing the average interaction value (603.03) and using that value as a benchmark, it was concluded that

17 student interactions were below the computed average while 11 were above average. Although these results could have multiple explanations, it was obvious from the focus group and the individual interviews that all the students enjoyed the game even the ones who did not complete it to the end. It could be that those who had the above average scores were competitive and that is the reason they went into the game multiple times to make sure of task instructions and go through provided links for clarification. As for the students who were below average, it could be that competitiveness was not something important to them. It could be that relaxation, being in the zone, and the joy of the game were the things that mattered to them the most. Not everybody had the desire to win.

Figure 2: Students' total interactions inside game content areas
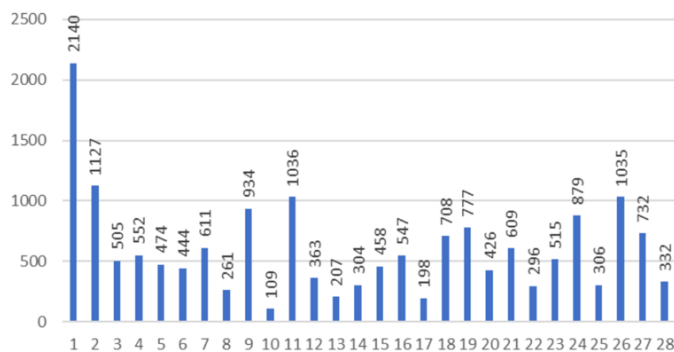
Game Impact

The game impacted the players in three significant ways during the game: socially, departmentally, and personally. It also had an impact on them after the game was over. Each point will be discussed through the different data sources to gain more insight into the phenomena that was unfolding.

Social Impact

When the students were asked about the media applications associated with the game, most of them reported that it increased their motivation as their friends were following the game accounts and commenting on the players and the tasks. One student explains "*Because a lot of people especially our friends were following the* (EDTG) *Instagram account, it made it so motivating*" for her (P7: FG1). One of winners mentioned how social media exposure excited her "*After every level I would go and check it and see the story on Instagram. Some of them I would show my friends like: Oh, look! They posted mine!*" (P2: ID). The influence of social media and peers were two motivators that fueled the current. Another student claimed that she "*felt seen*" (P5: FG2) especially since her media accounts are private. She explains that through the Instagram stories, many of her peers would get to see another side of her "*They don't know the other side of me, you know. So, when they see this side, it's like oh like they'll know a part of me without me even having*

to say anything." (P3: ID). Sometimes the motivation came from watching others through "*the stories on Instagram*" as it was *"something very motivating because it pushed me to want to do better*" (P7: FG1). Social media in this case fueled goal pursuit especially since there was a virtual audience witnessing what was happening. A few students mentioned that the excitement from the EDTG players themselves in the WhatsApp group motivated them. One student even claimed that "*when people talk about it a lot* [in the WhatsApp group], *like the other students,*" it increased her motivation to play even more (P3: FG1). Social media evidently helped make it contagious. Within the social structure of a university, the influence of peers is very strong. During the individual interviews one of the winning gamers commented that her friends knew she was competing, so she was worried about what others would think about her if she quit and her name was not posted on the next level winner list, and this kept her going until the end. According to her: "*I can't tell them I quit. I want to say 'Oh, I finished the game!'*" (P2: ID). This was not the only way peers affected each other. Another indirect way was also discussed by another student. She explains she had weak drawing skills and was comparing herself to the other competitors who were known for their excellent artistic abilities. However, she believed that in spite of the latter, she felt her drawing that was posted on Instagram "*stood out more than any of the other flowers and I was really proud of myself.*" (P3: ID). This type of indirect pressure from significant others can be very positive and fuel more momentum into the DMC. Apparently, social media presence and exposure is very important to these female university students.

Department Impact

The game had the effect of allowing the students to bond more with their department. Some participants believed they were lucky to be in department with active extracurricular activities, as P6 explains "*I think we as a European Department we're very creative and we like to do new things and we're open to different cultures and different beliefs and so I think doing things to help emphasize this fact like EDTG is something that really makes us stand out. We're not like any other department, we're very unique*." During the interview, some students stated they transferred from other faculties and were happy with their decision. P1 (FG1) elaborates on this: "*I was in a different Faculty and the entire department I was in were collectively in a giant depression and I was like them until I transferred to our department which was amazing and the change in the atmosphere and the vibe and everyone just being so cool and all the different activities was amazing.*" This type of environment apparently helped bond them to their educational institution and made them want to "*participate in the fun things*" that were being offered (P4: FG1). One student even mentioned that because of the pandemic she did not want to miss out on any of the department activities as it reminded her of the "*fun days at university*" and made her feel "*more connected to the department*" (P5: FG2). The sense of belonging was strong as was apparent from the data.

Personal Impact

The students also reported a number of personal benefits they achieved from playing the game. The most cited reason was creativity. All the students agreed that this was the main personal benefit they achieved from playing the game. As one gamers admits: "*I don't really see myself as creative but I was able to do things that I didn't think I would do before and think deeper about them because the tasks they seem like very simple and easy but I wanted think of a way like how will do it so I won't be like everyone else because this is a competition and how to put my twist on it.*" (P3: FG1). Another student also commented that she was not a creative person, but the game made her become one as she states "*that this is one of the best things that I ever learned from this game!*" (P5: FG1). The second personal benefit they acquired was time management. All gamers were taking summer courses which were demanding but reported they were still able to find the time to play the game. One of the gamers explains this: "*I think it helped my time management skills especially since we had a summer semester going on and I had three demanding courses and I also had fencing training online so I really had to manage my time wisely to do everything.*" (P1: ID). Another impact was the feeling of being productive as one of the winners explains: "*I felt productive. It was not like other games that consumed too much time and wasted my day. I was having fun, learning and getting things done!*" (P2: ID). One student even mentioned that it helped her become more productive after finishing the writing tasks as it made her "*become more organized"* in her thoughts (P7: FG1). This type of impact made the gamers feel achievement. A participant explains this feeling in detail: "*I think it was satisfying to finish all the tasks. It was pleasing when I see I passed this level and then the next one. I really like this feeling of achievement.*" These types of progress checks were important as they help students move on to the next level with confidence and satisfaction.

Finally, the last impact had to do with the use of English in the game and its appropriateness to the students' abilities. When asked about the difficulty of the language used in the game, most of the gamers reported that it did not noticeably improve their linguistic abilities as it was "*appropriate to our language skills"* (P2: FG2). However, most of them agreed that before they started to play, they believed the game would use language that might be "*too academic*" (P2: FG2) or difficult for them. However, that was not the case. According to most of the students, the game actually enabled them use English in another environment outside their courses as it made them do things with it they "*never would have thought about doing outside what we normal do with the language*" (P3: FG1). They had to research the tasks especially those they were not exposed to before and carefully read the instructions to understand what was required of them. Only one student actually admitted that the tasks improved her *"writing skills because we had so many writing tasks*" (P4: FG1). To sum up, the game helped the learners use English more in different contexts thus exposing them to real world uses of the language.

Impact Beyond the Game

When participants were prompted about the benefits of the game, two main themes arose. The first was about the memories the game inspired. P7 (FG1) explains "*I think that in a way I kind of made memories with my tasks and there're things that I can look back on and feel proud of my accomplishment.*" These kinds of positive memories allow students to establish a basis for life-long learning. Learners reflect on the skills and abilities that made them happy and feel accomplished and thus learn from the experience and use it in future language use. The second theme was related to the idea of personal growth. P2 (ID) explains this: "*It was lovely for me to discover this new part of myself ... Although I don't like art but it kind of made me start to do art. I started to make clay pieces. I even created an Instagram account where I can post the pictures of the different clay art I make. I am very proud of it. But I don't think I would have done it if I didn't play the game.*" Most of the students underestimated their creative side or the potential they had, but the game helped them discover new skills and accordingly become more "*confident in different abilities*" (P5: FG2). It is very important for L2 students to benefit from language related experiences as it can give them the confidence to believe in themselves and accordingly believe in their potential and advance their skills.

DISCUSSIONS

This section focuses on how the results supported the notion that a gamified extracurricular activity can be successfully designed to activate a DMC and keep it moving in one direction. Different data sources revealed the directionality of the DMC experienced by the gamers through their goal to win the game or just their enjoyment. It further found that their efforts became cohesive, and their energy was focused. The aim was to discover how activation can be done in this specific context, the impact it had on the gamers, and the intrinsic value of game participation. Therefore, the design of the game will be explained through the different DMC stages the students went through. Next, the social, departmental, and personal impact it had on them will be addressed. Finally, the intrinsic value that the players experienced out of the game will be discussed.

EDTG & DMC

Launch: Conditions and Triggers

For the launch of any DMC, there must be an alignment of two important factors: the primary conditions and the availability of a specific triggering stimulus. With regards to the former, the department's past successful history with extracurricular activities indirectly played a role in the students' decision to participate in the game. The success and fun they personally experienced or heard of during previous departmental activities is considered an important condition. Most of the participants believed they were in a unique department and wanted to be part of its success as they were going to be the first students to participate in a new kind of activity. In addition to the latter, the duration of the game was also a primary condition. The three-week timeframe of the game gave the students enough time, in spite of their busy schedules and the circumstances they were going through, to do the tasks. Most of them claimed the duration was good as it left room for enjoying the gaming experience. The game was also set up to enhance

curiosity through both word-of-mouth, two months before its commencement, and media advertising two weeks before it started. The intention was to influence the students' decision to play even before it commenced. During this pre-DMC stage, a number of sensory feelings came into play. The students specifically stated that before they started playing, they were imagining themselves inside an exciting game, playing, and winning. Some even imagined the reactions of significant others. These kinds of visions helped give the motivational current its strength and, more importantly, cohesion to the whole behavioral process. According to the theory, these types of sensory perceptions, and even the emotional climate they are in, help propel a DMC forward (Dörnyei et al., 2016). In addition, game participation was optional, so it was the students' own decision to play or not. Thus, they had complete ownership of the process and its outcome making it yet another primary condition that helped ignite the motivational current. All these conditions impacted the students' lives and changed the way things were before the identification of the goal. The launch of the DMC also required the presence of a specific triggering stimulus. The pandemic could have been the main impetus; the game took place during the COVID-19 pandemic lockdown, so it was a very new and stressful time for most female, Saudi, university students (Shoaib & Zahran, 2021). Because of the latter, they needed and wanted to do something exciting, fun, and different, and this opportunity came along. Another equally important stimulus was the game incentives. Gamers usually play for the extrinsic or intrinsic rewards they receive. Interestingly, half the participants stated that they played for both types: to win in order to obtain the prizes and enjoy the experience at the same time. For others, it was mainly for the non-tangible reason of participating for the enjoyment it will provide. This makes the DMC for both cases directional. The goal, whatever it is for the learners, has a significant purpose that provides the cohesion and attention they need to reach their target.

DMC in Action: Engagement and Longevity

Once the DMC was launched, other design related factors and triggers came into play and became the motivational fuel needed to take the students forward. The gamers were required to move between the different levels. One of the main game design elements was to escalate the tasks in difficulty as the students moved up between the levels. According to Koutropoulos and Porter (2017), this is very important in a gamified learning experience as it can lead to high levels of self-efficacy. It is equally significant to a DMC. The gamers claimed it helped them not only become more confident but also revealed potential they did not know existed in them. Specifically, since they were allowed to be autonomous with how they dealt with the tasks as it helped them see another side of themselves. Learner autonomy is essential for lifelong learning especially for the development of this type of self-sufficiency as a person and not only as a learner (Alhejaily, 2020). The students' perception of progress through the notifications, badges, and certificates they received also played a vital role in the surge's forward movement. According to the theory, when people set goals, they monitor their achievements which in turn creates a framework of proximal targets related to a DMCs overall directedness. It is through such beliefs that the students channel

their motivational energy as their goals are not just outcomes being aimed for but mark their overall progress in the game and provide immediate feedback that they are on track. More importantly, it made them feel their goal is achievable. This specifically helped the gamers understand what level they were at and what they accomplished. This generated sensations of eudaimonic well-being and self-authenticity which contributes to the current's overall positive emotional loading that fuels all subsequent efforts.

The last game design factor to affect the learners was social media use, both during and after the game. Throughout its three-week duration, the students were playing and at the same time being exposed to media. Their social well-being was being enhanced. Their tasks and names were being broadcasted on different media platforms. At the end of every level, the names of all the students moving forward were posted and helped the directionality of the current. Romero-Hall (2017) argues that it is through social media that many of the younger generation build and strengthen relationships. Therefore, it is not a surprise that our student gamers were influenced by significant others as they had the desire to be seen, wanted to showcase their achievements, and enjoyed the exposure. That, in itself, could have been one of the main motivators that helped them persevere and reach the final level.

To sum up, the data revealed three important factors that extended the engagement and longevity of the game. All of them played a vital role in strengthening the structure of the DMC experience and giving it the motivational fuel it needed to reach its target.

1. **Goal Ownership.** Even when the gamers were working on tasks that they did not particularly like or felt were mundane, they still enjoyed it. According to the DMC theory, eudaimonia can be generated from ordinary tasks. When individuals own a valued goal, both the process and its outcomes, it can intensify the way they engage in activities for lengthy periods of time. It becomes rewarding and enjoyable because the tasks, pleasurable or not, are leading them to their target (Dörnyei et al., 2015).
2. **Perceived challenge skill balance**. It is important for students to not only to know their abilities, but to believe they have what it takes to match the demands of the tasks they are working on (Hefferon & Boniwell, 2011). This is a key principle of a DMC (Dörnyei et al., 2016). Most of the participants found the tasks to be easy and matched their skills. However, many of them did state they were challenging but attainable at the same time.
3. **Motivational behavioral routines.** The gamers were in motivational autopilot where, in spite of all the distractions around them, they were able to complete the tasks and move between the levels. They did this because the execution was actually part of the game structure they were in. According to DMC, these self-renewing currents of motivation are what give the surge the energy it needs to keep moving forward. It is at this stage of the game that many of the signs of being engulfed in a DMC emerged. The intense focus, the loss of time, the total relaxation,

it being an escape or break, and the therapeutic vibe were all hallmark signs of being in a motivational surge.

DMC End

The waning of DMC in a gamified extracurricular activity is slightly different from other learning contexts. The salient structure that was put in place no longer required focused attention or effort and therefore the flow of energy stopped. However, it is a game and one of its most important aspects is the announcement of the results. Thus, in spite of submitting all the tasks, there was a wait period until the final results were announced. The students were highly anticipating the broadcasting via social media. It is only here that the closure to the gamified experience ended. The winners enjoyed the prestige of wining and the whole group enjoyed the experience. This is the point that the DMC truly ended for the students, but it did not mark the end of their journey with language, self-growth, and exploration. As the data proved, it helped many of them create successful memories which encouraged future endeavors they might not have considered doing. A DMC focuses on the importance of having students leave a project with a positive mind frame regarding the personal, social, and language goals that were achieved (Dörnyei et al., 2016).

Creating an extracurricular activity with the intention of incorporating a DMC is possible. However, a number of design-related practical elements should be taken into consideration:

1. **Game structure**. The extracurricular activity should have an appropriate timeframe, be put on a platform/in an environment students are familiar with, have a clear goal, be made up of autonomous challenging, flexible, authentic tasks that escalate in difficulty but not beyond student abilities, clear and concise instructions and guidelines, different progress checks during its duration, media exposure, and a good reward system.
2. **Understand the mental, social, and language proficiency make-up of the potential gamers.** Game designers should take into consideration the age, gender, educational level, interests, and culture of the gamers. Through this understanding, many design-related game elements can be specifically chosen to match student needs, interests, and culture specific ideologies.
3. **Adhere to the gamers' psychological needs.** The game should be motivating, challenging, and fun to enhance emotions such as self-efficacy, motivation, confidence, satisfaction and achievement.
4. **Language proficiency.** It is very important to reach a balance regarding the level of proficiency the students are at and the type of tasks they are required to do. It is worth noting that extracurricular games do not have to be specifically created to improve English. More importantly, they need to expose L2 students to new ideas and concepts or build on world knowledge they already have a background on.

For any task related extracurricular game to be both engaging and motivating, it is important that the needs and interests of students be kept in mind as they can play a pivotal role in the success or failure of the extracurricular activity.

Game Impact

The gamified extracurricular activity impacted the gamers in three ways: socially, departmentally, and personally. Each one of these points will be discussed individually and then its relationship to DMC will be highlighted.

Social Impact

From a social perspective, the game impacted the gamers in two ways. Although social media is usually associated with negative impact, it can also have positive value for students (Akram & Kumar, 2017). Firstly, the idea of having social exposure to the game was based on the younger generation's lifestyle nowadays. Unsurprisingly, the students enjoyed the exposure for many reasons: it spread game updates quickly, showcased their creativity, connected them with peers, and it even gave them popularity. This type of coverage, when used wisely, can be motivating for all those involved. For the participants, it increased their self-confidence in both their abilities and in their potential to do better. It also strengthened their connectedness with friends and peers as they were being followed by them or showcasing work to them. Some of the gamers even felt social media gave them a specific kind of celebrity status when their work was posted, and they believed it was better than others. It even enabled some of them to indirectly show another side of themselves, specifically those with private media accounts. This type of social well-being is a very important fuel for the motivational current. Although the DMC creators mentioned the importance of significant others in a current, it was a bit different in this case. During the surge, the students were motivated by others around them, and even those they did not know. These types of relations are a vital part of their lives and therefore social media should not be overlooked in importance. According to Patton (2012), when one person in a project is excited, it can become very contagious and excite everybody else as well. Chronic motivation is one of the characteristics of a group DMC where the action of one person, can influence the way others see it as well. In the case of this study, the students were not working together as a group but were becoming 'motivated as a group.' Finally, social media is another way the study participants were receiving the momentum to move forward. It is good for students to be exposed to different opportunities for both learning and personal growth as this is an integral characteristic of a DMC. Thus, this kind of positive emotionality stems from the social well-being that was experienced by the gamers in all its different forms. It is an essential motivational retrigger that can keep the current strong.

Departmental Impact

The game also impacted the way the students felt about their department and gave them another reason to enjoy being a part of it. It is important for language students to have a bond with their place of study as it makes them more attached and proud. During the pandemic, the situation was difficult for all of the students. However, the game actually helped many of them still feel the connection to their department in spite of the shift to the BlackBoard online platform. This type of solidarity had an impact on the success of the game as it was another fuel to the motivational current. It is usually discussed in terms of student relations with other students or with their teachers, but as was apparent from this study, it can also be with the department itself. According to Pedler et al. (2021), higher education students who have an increased sense of belonging report higher levels of motivation and enjoyment and this can even impact their achievement. Thus, it is not something that should be taken lightly in its influence on the motivational surge.

Personal Impact

The game was also able to bring out a number of personal benefits for the students. The main element reported was creativity, with many of the gamers claiming they did not have much of it prior to the game. Although not all tasks within an educational context are related to creative performance, in the case of EDTG, there was a clear focus on this element. The students reached a creative state in the production of their work, even if they were not playing to win. One of the main characteristics of a DMC is that it takes people to levels of learning and potential they never thought of achieving before. The gamers were very productive and created work that was so satisfying it gave them a high sense of achievement. Even their English language saw improvement through exposure to ideas and concepts from other cultures. Interestingly, with some students, it even went beyond the game as it triggered in them the desire to look more deeply into their passions and work with newfound skills. The memories they made from their achievements and the personal growth they experienced evoked in them the desire to learn and achieve. For language learners, success usually facilitates lifelong learning especially since these kinds of feelings linger on into the future. Such positive emotionality is one of the hallmarks of being in a successful motivational surge as the ultimate goal of a DMC is to engulf students into a current that helps them not only work on specific projects or tasks and excel but be able to take the learned knowledge and skills they acquire into their future lives. This type of continued development of knowledge and skills, especially language, is the overall goal of L2 education.

Intrinsic Value of Participation

The collective results of the study identified the intrinsic value of participating in a gamified activity with a DMC inner structure. The first value relates to the signs of being in a motivational current. All of the students who were interviewed commented on the therapeutic advantage of playing the game. It helped them break away from life distractions around them and enjoy the experience. The second intrinsic value came from the game itself. Apparently, EDTG fueled the motivational current that made them motivated to accomplish tasks and be as creative

as possible. It was able to bring out strong motivational feelings about perseverance, goal pursuit, achievement, and satisfaction, a goal many educational institutions strive to reach. The final intrinsic value came from the gamers' engagement with the game. It is worth remembering that not all participants reached the final level but all of them reported high levels of enjoyment with the game regardless of competitive intentions or not. Gaming is a complex act and people enjoy the experience differently. This study illustrated that engagement, in all its different levels, still leads to higher occurrences of motivation.

CONCLUSIONS

Dörnyei and colleagues have introduced the L2 literature to a motivational construct that can play a very important role in educational settings, if designed and incorporated properly. Although the theory specifically targets projects in L2 classrooms, extracurricular activities were never excluded as they too are a part of the educational system. A pilot study of mixed-methods was used to corroborate and augment findings of activating a DMC into a gamified extracurricular activity. The study results clearly illustrated that this can be done through an engaging project, an adequate timeframe, sufficient support, clear sub-goals, a good reward system, and a tangible end goal. Together these elements can maintain student momentum towards a clear aim that can be rewarding on many levels. It is important to understand that all the different features of the game must work together for the DMC to be ignited and enable highly motivated engagement for a pro-longed period. The results of this small pilot study indicate that uniting these elements in a gamified activity outside a program's curricula can enhance the sense of belonging, encourage engagement, increase eudaimonistic sensations, develop linguistic and non-linguistic skills, and lead to the development of personal benefits beyond the game.

The findings also point to a few pedagogical implications. Firstly, it is important to expose EFL learners to language outside the classroom as it can provide them with more opportunities to practice and become more proficient. Second, educators should take the time to design and incorporate DMCs into their program's extracurricular activities for the many benefits learners can receive from the experience. Thirdly, fun and engaging well-designed tasks can lead to successful memories that form a strong base for future lifelong learning. Fourthly, extracurricular activities are just as essential as a program's compulsory curricular and thus their importance should not be overlooked. Hence, incorporating games into educational settings not only enhances self-visualization, creativity, and social well-being, but also encourages personalized and self-directed learning through entertainment means by improving students' overall educational experience.

However, a single research study on its own cannot reveal all the benefits of incorporating a DMC into a gamified extracurricular activity. The study sample was not only small but also gender specific; therefore, it was only able to take a glimpse into a DMC from a specific angle. In spite of its shortcomings, conducting a small case study that illustrates numerous signs of success and identifies some of the gains of incorporating a multifaceted motivational construct into the

design of an extracurricular activity can be a good starting point to develop a better understanding of learning methods and encourage similar implementations in other L2 contexts. This will enable educators to meet the needs of students, enhance their learning experience, and improve the outcomes of their language learning journey outside the classroom. Further research is needed to explore the different elements and their relationships to reach a better understanding of the phenomena and its ability to develop self-sustainable motivation and harness this power in educational settings. This pilot study illustrates that there should be more to higher education institutions than just curriculum-based qualifications.

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