



# PROG7312 TASK 1: RESEARCH

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# INTRODUCTION

## INTRODUCTION TO GAMIFICATION

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The Dewey Decimal System is the proposed application in development. This system, according to (University, 2022), is a classification system used by libraries to organize books by subject. Each book is assigned a shelf mark number, which is normally found on the spine, and is arranged in numerical order. Gamification features must be incorporated to make this software enjoyable to use and to drive user involvement.

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To keep people engaged, gamification app design employs basic psychology. Gamified mobile apps ensure that the user is rewarded with a sense of accomplishment, which stimulates them to return to the app and use it for a longer period of time. 2021 (Wetzler)

# GAMIFICATION FEATURES



# LEADERBOARD

- According to (Engineering, 2021), a leaderboard is a high score list in its most basic form. Leaderboards rank participants based on their relative success, as measured against a certain criterion. As a consequence, leaderboards may be used to determine the top performers in a certain activity.
- Motivation determines human conduct. In turn, motivation is influenced by both internal (intrinsic) and external (extrinsic) elements. The psychology of competitiveness within humans is mostly influenced by external circumstances. (Engineering, 2021)
- Leaderboards serve as a platform for the creation and management of points, ratings, rankings, awards, and the assignment of virtual incentives and prizes. (Engineering, 2021)
- Learners can utilize their leaderboard position to evaluate their own performance in comparison to others. Leaderboards can encourage social connections by fostering a community fuelled by social trade and competitiveness. (Engineering, 2021)
- According to Social Comparison Theory, when people realize how they differ from others, they gain a better understanding of their own talents. Leaderboards allow this type of comparison. Finally, this comparison increases their 'desire to win,' since it gives them a sense of accomplishment and prestige. (Engineering, 2021)
- Finally, they can be used as a competitive measure of advancement, comparing the player's own performance to that of others. (Engineering, 2021)

# POINTS SYSTEM

- In most games, Experience Points are used to assess the player's mastery of the virtual world. More points equals more mastery. And mastery is satisfying! (Calcutt, 2018)
- Experience points are a type of metric. This suggests they are valuable. As a consequence, they may be utilized to guide your students and promote appropriate behavior. (Calcutt, 2018)
- By awarding points for task completion, players are encouraged to continue working on the tasks in order to earn additional points. You should employ this motivating energy to propel your online learning environment forward. (Calcutt, 2018)
- It should be noted that in order to be motivated to gain points, the user must have a reason to do so. (Calcutt, 2018)
- You're expecting users to actively connect with your content rather than acquiring a Drake Fire Amulet or fighting twelve Murlocs. As a result, they should gain experience. (Calcutt, 2018)
- As students develop (and engage more), their point total should rise. They should eventually level up and have access to new experiences as well as the ability to earn even more XP. As a result, the cycle begins again! (Calcutt, 2018)
- This will motivate your students to investigate and participate more deeply. The end objective should be to establish a learning culture that you are proud of! (Calcutt, 2018)



## COUNTDOWN TIMER

- According to (Olah, 2018), watching contestants on TV in game shows when the clock strikes midnight is thrilling. Timers heighten the drama, emotional connection, and physical tension in the air. It's no surprise that we want to employ this game element or gamification of learning to increase engagement. When under time constraints, students pay greater attention. Or are they??
- People like battling against time, or watching others compete against time on television. So you use a timer to spice up your eLearning course questions. It's a nice digital timer that counts down. The maximum score is 60 points, and each second you lose one. You're out after a minute. You snooze, you lose. (Olah, 2018)



## BADGES AND ACHIEVEMENTS

- People enjoy receiving prizes. Even if the prize is only a lovely image on the internet. Achievements are a method to reward your user for achieving something exceptional, such as studying for 10 days in a row or finishing 15 tasks without mistakes. This is both pleasurable (similar to receiving a gold star in primary school) and functional, since it pushes users to perform activities that benefit their learning. (2018, Baraishuk)
- It is critical that the accomplishments be well-designed. Otherwise, they may encourage users to engage in activities that make learning more enjoyable but less successful. (2018, Baraishuk)





## PROGRESS BAR

- It's an excellent technique to show the user how much... progress they've made. Filling it out offers the student a satisfying sensation and motivates them. Progress bars can depict both the practice process for a given task and the overall courses. It is simple to apply, yet it is still valuable. (2018, Baraishuk)
- Because it is visible, a progress bar is preferable over a basic signal ("50% of the course completed"). The user doesn't have to think about it twice to realize how far they've already come. (2018, Baraishuk)



# SELECTED GAMIFICATION FEATURES TO IMPLEMENT

## INTRODUCTION OF FEATURES

In my application , The implemented features are:

1. Points System & Level Difficulty
2. Timer
3. Leaderboards

- ***Motivation & Benefits :***

- At any moment throughout their use of the software, users will be able to check a leader board and compare their results with other users. According to my Leaderboards research, this might drive children to continue playing the Dewey decimal game in order to enhance their leaderboard rating and build their knowledge and competitiveness. They will enhance their comprehension of the Dewey Decimal System while having fun if they are inspired to continue playing the game that was used to show them how the system works.

## LEADERBOARDS, COUNTDOWN TIMERS AND POINTS

- **Motivation & Benefits :**
- Users will be awarded with points each time they finish a gaming session in the selected difficulty setting. The difficulty will be graded as Easy, Medium, or Hard. Each Difficulty mode will be assigned a different number of points. These points decide their position on the leader board. Progressing through the game awards the player with more points throughout a gaming session, driving the user to attempt and go as far as possible during a game session in order to earn a higher point yield.
- **Motivation & Benefits :**
- The timer is very crucial during a game session. The timer's countdown will be determined by the difficulty option they choose. The more difficult the mode, the more points to collect and the shorter the time limit. The timing will also have a direct impact on the number of points earned at each level of the game, with the quantity of points granted for that stage directly connected to the timer. Users are driven to complete each stage of a gaming session as soon as possible by using a countdown timer because when the timer runs out, the game session ends and the player does not get any more points for that session.

## CONCLUSION OF FEATURES SELECTED

- We can achieve the intended effect of users developing their abilities while also having a nice experience, maybe sharing their experience with others, and encouraging them to utilize the system by employing the above elements.

# CONCLUSION

## CONCLUSION OF RESEARCH

The goal of gamification is to encourage consumers to interact with the information.

Because these strategies have been devised and applied strategically, including the features outlined above will undoubtedly inspire users to interact more with the program.

Especially with unpleasant activities like an in-depth safety training program or compliance training. Gamification may influence how people feel about specific tasks by providing rewards. Tasks that would otherwise be avoided can occasionally be engaged by generating a user incentive.

After a few games with the Dewey system and the deployment of the three gamification aspects outlined, the user should at the very least understand the different call number categories and what they imply. Who knows, they could even go to the library to see for themselves.

## REFERENCES

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