

THE GAMIFICATION OF EDUCATION LANGUAGE APPLICATIONS

An essay on Gamification

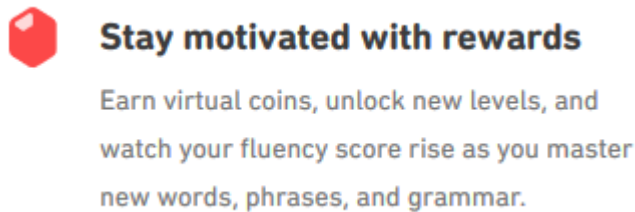
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How do language learning applications keep their user's motivated to learn?

Gamification covers many topics; they can be both positives and negatives from the general public to experts. Gamification within the Learning environment is the topic I wish to talk about. More precisely the positive reinforcements that rewards in gamified applications give to the player/learner and how this can positively motivate them. I will be focusing on Language Learning Applications such as Duolingo and how it uses its in-app rewards for motivation. Duolingo is one of if not the most recognisable language learning apps, it is available on (*IOS, Android, Windows*), the learner can pick from 35+ languages, some being fictional like "Klingon" from the popular movie franchise Star Trek. Duolingo's use of gamification not only includes the rewards but also adapts to how the learner progresses, quick improvement and easily accessible grades. I will also include a critical view of this topic from the predefined prompts we were given, I will give my view on if I agree or disagree with what the author had said. I will also be using peer reviewed and scholarly published reports to back up my claims on the effects of rewards systems and the relation to motivation.

I have my own experience with this application and have spent a small amount of time using it but believe I have enough experience to give my view on it. I want to dive into how such applications keep their player base involved and motivated to keep learning. The mechanics they use and how they draw in their player base, Duolingo currently has over 100Million downloads on the android play store alone. I am expecting to learn a lot more than I will initially know, I expect that there are widely different views on the rewards systems being used to motivate their players as well as other smaller gamified elements included within Duolingo.

The Player is at the root of gamification in any system, we already know that games are a good motivator (*Gamification by Design: Implementing Game Mechanics in Web and Mobile Apps*, Gabe Zichermann, Christopher Cunningham) Duolingo's main method of keeping the player motivated is through its rewards system. The image below is taken from Duolingo's website, showing that their focus on keeping people motivated is through rewards.



There are multiple ways of earning rewards to validate the player and keep them motivated, for example, the daily reward, the player must earn a set amount of Experience per day to earn these rewards. The player does have control over how much experience is required but in 4 pre-defined increments:

- Casual - 5 minutes a day
- Regular – 10 minutes a day
- Serious – 15 minutes a day
- Insane – 20 minutes a day

This allows the player to spend minimal time per day studying, as the more time spent on a particular topic can become boring and people can lose interest easily, so spreading it out into small increments a day over however long is a good design choice in my eyes, the players do not have to follow these increments and can study for as long as they want per day. Allowing the player to be rewarded by putting a small amount of time into learning is a good motivator it helps to persuade them to come back the next day and keep it up, this also goes hand in

hand with the daily streak as keeping the player interested and motivated to keep learning while earning the rewards each day will increase their streak.

However this can be seen as a negative mindset, giving small rewards for the player to return each day even if it is only for a few minutes a day, it can escalate and the player's focus of learning will be outweighed by the pure desire of the rewards.

A study by Kelsey K. James and Richard E. Mayer (*Learning a second language by playing a game*) into the value of gamification for language education found that the groups who used Duolingo for their learning experience reported higher enjoyability, more appealing and less difficult. As well as they would continue with more lessons, this study shows that the motivational and affective benefits of Duolingo are a promising alternative to traditional language learning methods for students who may require more motivation to not disengage from the learning material.

From the above study, we can gather that using gamified applications such as Duolingo can give positive reinforcement to the learner, keeping them focused and having a fun experience all contributes to better performance, A study by Aniket Nagle *et al.* (2014) (*The Use of Player-centered Positive Reinforcement to Schedule In-game Rewards Increases Enjoyment and Performance in a Serious Game*) Found that player-centred reinforcement had higher positive reinforcements and performance. The game in the test was a memory game, which applies to Duolingo as all languages are based on memory, Duolingo frequently asks the user to translate text from either their native to the new language or vice versa, doing this successfully results in the application rewarding you with motivational text, feeding the player positively and pushing them forwards to complete a lesson.

That being said not all gamified elements positively or negatively contribute to player motivation, let us take the leader boards. A study on intrinsic motivation by *Elisa D. Mekler*,

Florian Brühlmann, Klaus Opwis, Alexandre N. Tuch Found that gamified elements such as levels, points and leader boards do not add or take away from intrinsic motivation, they say they “act as progression indicators”, I somewhat agree with this as I do not see the levels, points having any effect on motivation as it does not directly affect the learner, however, leader boards can give a player/learner the sense of accomplishment, in my own experience I wanted to push myself further to get higher on the leader board, I can see however that this is not the same for everyone as this study has found.

One critical perspective in terms of Academia is (Robertson 2010) “‘*gamified*’ products never can, nor were ever intended to achieve, the engaging qualities of well-designed games. The joys of gameplay arise from having meaningful choices in trying to achieve interestingly difficult goals. In contrast, gamification is ‘taking the thing that is least essential to games and representing it as the core of the experience’; namely, the scoring feedback that tells players how well they are on the way to achieving their goals” I agree with this quote from Robertson, I cannot say for myself that they will ever reach the levels of well-designed games, however, I have mixed opinions on the point of “gamified applications take the thing least essential to games and representing them as the main core experience”, Most games have what Duolingo has, the experience points, levels and leader boards but that being said, it is depending on the genre of the game, most games do indeed have levels, leader boards and experience but they don’t directly correlate to the main core of the game. As I mentioned before leader boards can have a motivational effect, as it gives a competitive nature in games, and pushes the players to be the best. In terms of the motivational presence these elements have, I can say it is on the lower side of that compared the rewards earned.

Another interesting concept I found was “Freedom to fail” encouraging the learner to feel comfortable in taking risks, this changes the focus of the learning from being outcome-

oriented to focusing on learning (Stott & Neustaedter, 2013) They also identified that certain dynamics and concept found in game design are shown to be more successful:

- Freedom To fail
- Rapid Feedback
- Progression
- Storytelling

Duolingo ticks three out of four of these dynamics (Freedom to fail, rapid feedback, progression) The game does penalise the players for failing but this does not affect them in the real world, they can simply repeat with no real-world consequences, when a user fails Duolingo immediately shows the correct answer, giving rapid feedback to the player to learn from their mistakes. Progression in Duolingo comes in each language since they are divided into levels, to help not overwhelm the player they get progressively harder by introducing new phrases, words, and grammar.

However, the “freedom to fail” concept can only go so far as it mostly applies to people with the pro version, as for people who do not own the pro version within Duolingo they have 5 lives total, these decrease each time the player fails a lesson but they can be earned back either by practising to earn 1 life, or purchasing the lives back using the “Lingots” that are earned throughout playtime. Otherwise, the player is forced to wait for multiple hours for the lives to build back up to five.

I still agree however that players can be a bit riskier with their answers even if it may affect them in-game it has no real-world effects. Especially with learners who have no desire for the rewards and are there for the primary reason of learning, which is the initial intention of the application. People who have no care for rewards would probably be more willing to

upgrade to the pro version of the application to avoid ever losing lives and can solely focus on learning.

To conclude, Gamification in the education sector is great, and can only bring positives in my eyes to helping many people learn. I can say that not all elements within a gamified application are there to motivate the player, I can say that the rewards systems in games are the best way to show the player that they are doing well, from multiple studies I have looked at about the benefits of rewards I can say that I agree that a good way of keeping players interested in learning is rewarding, by motivating the players to come back each day to earn rewards whilst learning is a smart move. I find it difficult to keep focused and interested in topics, but reward systems/programs help as they give me motivation and are a good way of telling me that I am doing good. although as mentioned that should not be the main focus of the learner experience, the rewards should be a subtle way of motivating the player and showing their progression through levels and leader boards is nice, although they might not have as big of an effect as rewards they are a good way of showing straight progression. The concept of freedom to fail was an interesting one, I still don't know how to feel about it, I do agree that online applications do indeed allow the user to fail with no real consequence I can also say it isn't very beneficial to let the user fail over and over with any major consequence.

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Essay Prompt Quote: (Robertson 2010)
