

Gamification and Self-Determination Theory in Foreign Language Acquisition: A Conceptual Exploration

Norliza Che Mustafa*

Academy Pengajian Bahasa, Universiti Teknologi MARA Shah Alam

*Corresponding author

DOI: <https://dx.doi.org/10.47772/IJRISS.2025.924ILEIID0080>

Received: 23 September 2025; Accepted: 30 September 2025; Published: 01 November 2025

ABSTRACT

This concept paper explores the relationship between gamification and Self-Determination Theory by Deci and Ryan (1985) in the context of foreign language acquisition. Many studies indicated that foreign language learners often struggle with engagement and motivation during language acquisition. Gamification has the potential to improve learners' engagement during foreign language acquisition and influence the learning outcomes by transforming traditional learning approaches into interactive learning environments. In other words, gamification can help students become more engaged in the language classroom. On the other hand, Self-Determination Theory (SDT) identifies three components that influence students' motivation during the learning process. These three components, namely autonomy, competence and relatedness, have to be aligned with the game mechanics to be successful engagement tools and motivate learners. This paper inspects the literature review on gamification and SDT and discusses how gamification can be used to fulfil the three components of SDT during foreign language acquisition and thus increase students' motivation and engagement.

Keywords: gamification, Self-Determination Theory, Foreign Language Acquisition, motivation, engagement

INTRODUCTION

At present, foreign language acquisition is no longer considered an additional skill but rather a necessity for individuals to excel socially (York, 2023), academically (Sulaiman, 2020) or professionally (Sholihah et al., 2025). However, learning a foreign language is challenging and requires a long-time commitment. Once the initial excitement and the novelty of the new language faded or wore out, learners struggled with motivation and became less engaged in the learning process, thus hindering the learning outcomes.

Gamification has then emerged and been identified as one of the tools that can help with learners' motivation and engagement (Hamari et al., 2014). But gamification alone is not enough to improve declining motivation and engagement. A sound theoretical framework is needed as a foundation for gamification to be effective (Nurfadhilah et al., 2025).

This conceptual paper will first review the literature on gamification and Self-Determination Theory. Then it will discuss how game elements can be aligned with SDT to create well-designed gamified language activities.

LITERATURE REVIEW

Gamification

Gamification is the use of game mechanics and game elements in a non-game context (Deterding et al., 2011). Typical game components include awards, badges, points, levels, immediate feedback, etc. By integrating gamification in the classrooms, educators can change the traditional learning approaches to more interactive learning environments.

In recent years, gamification has been used widely in the domain of education to make learners more motivated and to make learning more engaging (Dichev and Dicheva, 2017). Multiple research studies conducted have shown that gamification makes learning more fun and enjoyable for learners (Hamari et al., 2014).

In the domain of language learning, there are a significant number of apps (e.g., Duolingo), platforms (e.g., Kahoot, Quizizz) and learning systems (e.g., Moodle) that can be used to diversify language activities and also help to boost motivation and enhance students' engagement. However, these sources of gamification or gamified activities are superficial without a good theoretical framework. According to Gao (2024) Self-Determination Theory is a solid framework that can be used to explore the effectiveness of gamification.

Self-Determination Theory

Self-Determination Theory (SDT) was developed by psychologists Deci and Ryan in 1985. It identifies three psychological innate components that are crucial for motivation (intrinsic and extrinsic). These components are: autonomy, competence, and relatedness.

Autonomy gives an individual the freedom to choose. Competence, on the other hand, makes the individual feel capable of achieving success. Meanwhile, relatedness gives the individual a sense of belonging. These components have to be fulfilled and satisfied for the individual to experience a sense of well-being (Ryan & Deci, 2000).

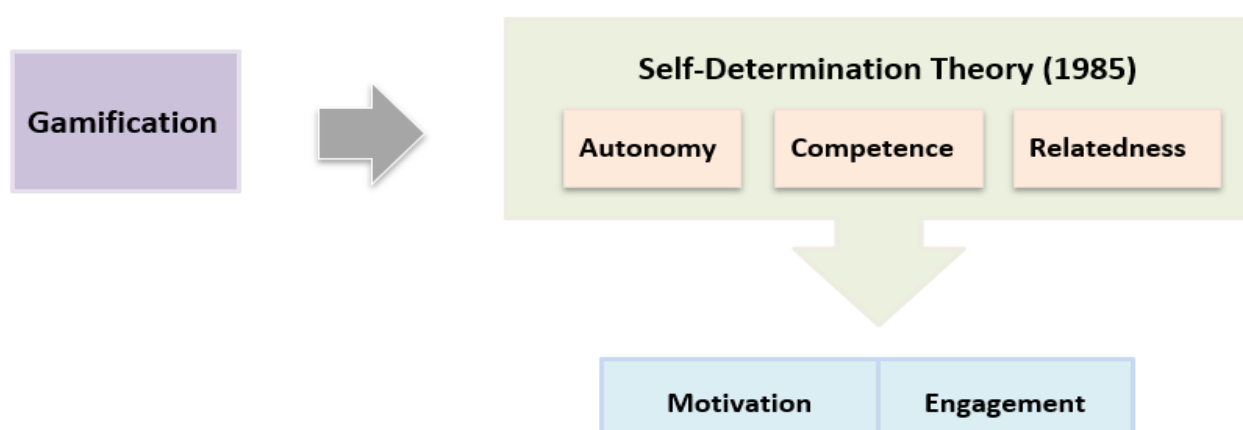
SDT is widely used and is also relevant in the domain of language acquisition. A research conducted by Noels et al. (2019) showed that students learning French had a higher motivation when the components of SDT were fulfilled. The research also indicated that the students put more effort towards language acquisition when they feel that the activities are voluntary and self-relevant. Additionally, according to the research, the higher the motivation, the higher the engagement of the students during the learning process.

DISCUSSION

As stated in the above literature, a suitable framework has to be used as a foundation to allow the gamification to be more effective (Nurfadhilah et al., 2025). In the context of language acquisition, the game mechanics, such as badges, points, leaderboards and tasks, for example, have to be aligned with SDT to produce well-designed and suitable gamified language activities for the learners.

The proposed conceptual framework (see Figure 1) positions gamification as an educational tool that directly supports the elements of SDT. When these elements are met, learners are more likely to feel motivated, which will lead to higher engagement and produce positive language outcomes.

Figure 1 Conceptual Framework



To enable students to feel in control of their learning, they can, for example, design or customise their avatar, decide when they want to do a task, and decide how much time they are going to spend on each task. They can also decide whether to participate or not in the gamified language activities without any pressure.

To enable students to feel capable and competent, the gamified activities should allocate points based on their performance and completion of the tasks. Badges should also be awarded after finishing a certain level of difficulty (p.e. Grammar for beginner/intermediate/advanced). Leaderboards and rankings could also allow the students to see their positions and track their progress.

To foster the sense of belonging and the feeling of inclusion, the language activities can include multiplayer tasks, peer feedback, exchange of information and sharing experiences, team competitions, etc.

Table 1 below shows examples of how gamification can be aligned with Self-Determination Theory to create suitable gamified language activities.

Table 1 Gamification based on SDT

	Descrip-tion	Example Game Elements	Language Activities
Autono-my	Allowing learners the freedom to choose	Task selection, quests, avatar customization	Choosing specific topics for quizzes, selecting vocabulary level and challenges
Compe-tence	Providing clear progres-sion	Points, badges levels, feedback	Vocabulary drills, grammar exercises, timed quizzes
Related-ness	Fostering collabora-tion	Leaderboards, group competitions, multiplayer tasks	Team competitions, peer feedback, collaborative tasks

Language activities, such as "Vocabulary Challenges," can help students improve their vocabulary retention. Fun and engaging vocabulary activities can help students reinforce the words in their memory.

Grammar activities, on the other hand, can help students learn structured phrases and help improve grammar accuracy. The immediate feedback received during activities will help students to strengthen their skills and make them feel more confident and competent.

In addition, collaborative tasks such as team competitions allow students to interact with their peers and create a conducive environment for learning. However, it is also important to acknowledge the limitations of gamification. Research has shown several negative outcomes that need to be examined and observed, such as task evaluation difficulties (Domínguez et al., 2013) and the effect of excessive competition (Hakulinen et al., 2013).

Apart from the above limitation, there is also the question of technological constraints. Unequal access to technology should also be considered when planning to integrate gamification in teaching. Internet access in some rural areas is often unstable, and students from low-income households often lack smartphones.

Finally, the readiness of educators and the support from the institutions should also be taken into consideration. Training should be given to educators who are not well-versed in technology and the importance of gamification. Learning institutions should play a role in helping educators strengthen their teaching skills.

CONCLUSION

As discussed in the paper, gamification can become an effective and meaningful pedagogical tool when its design

is grounded in a suitable theoretical framework. Self-Determination Theory provides a solid foundation to design gamified activities in foreign language learning.

Nevertheless, future empirical studies should be conducted to validate the points discussed in the paper. The studies could provide several insightful pieces of information, such as how to design gamified language activities to better meet the needs of learners or how to incorporate gamified modules into the language classes. Educators can then integrate these improved language activities into the classroom to foster motivation and sustain engagement.

Nonetheless, the effectiveness of gamification also depends on the characteristics of the learners, their needs, and their context. Thereby, when designing the gamified language activities, educators must take all these factors into consideration. To bridge the gap between entertainment and education, educators must also consider the balance between enjoyment and performance.

For future research, it would be interesting to explore whether tailored gamification based on students' performances can be realised and successfully implemented.

To conclude, the future findings of the research could contribute and be added to the growing body of knowledge about the use of technology in language acquisition.

REFERENCES

- Deci, E. L., & Ryan, R. M. (1985). *Intrinsic Motivation and Self-Determination in Human Behavior*. New York: Plenum Press. <http://dx.doi.org/10.1007/978-1-4899-2271-7>
- Deterding, S., Dixon, D., Khaled, R., & Nacke, L. (2011). From game design elements to gamefulness: defining "gamification". In *Proceedings of the 15th International Academic MindTrek Conference: Envisioning Future Media Environments (MindTrek '11)*. Association for Computing Machinery, New York, NY, USA, 9–15. <https://doi.org/10.1145/2181037.2181040>
- Dichev, C., Dicheva, D. (2017). Gamifying education: what is known, what is believed and what remains uncertain: a critical review. *Int J Educ Technol High Educ* 14, 9. <https://doi.org/10.1186/s41239-017-0042-5>
- Domínguez, A., Saenz-de-Navarrete, J., de-Marcos, L., Fernández-Sanz, L., Pagés, C., & Martínez-Herráiz, J.-J. (2013). Gamifying learning experiences: Practical implications and outcomes. *Computers & Education*, 63, 380–392. <https://doi.org/10.1016/j.compedu.2012.12.020>
- Gao, F. (2024). Advancing Gamification Research and Practice with Three Underexplored Ideas in Self-Determination Theory. *TechTrends* 68, 661–671 <https://doi.org/10.1007/s11528-024-00968-9>
- Hamari, J., Koivisto, J., & Sarsa, H. (2014). Does gamification work? - A literature review of empirical studies on gamification. *Proceedings of the Annual Hawaii International Conference on System Sciences*, 3025–3034. <https://doi.org/10.1109/HICSS.2014.377>
- Hakulinen, L., Auvinen, T., & Korhonen, A. (2013). Empirical study on the effect of achievement badges in TRAKLA2 online learning environment. *Proceedings of the Learning and Teaching in Computing and Engineering (LaTiCE) Conference* (pp. 47–54). IEEE. <https://doi.org/10.1109/LaTiCE.2013.15>
- Noels, K. A., Vargas Lascano, D. I., & Saumure, K. (2019). The Development Of Self-Determination Across the Language Course: Trajectories of Motivational Change and The Dynamic Interplay Of Psychological Needs, Orientations, And Engagement. *Studies in Second Language Acquisition*, 41(4), 821–851. doi:10.1017/S0272263118000189
- Nurfadilah, N., Bancong, H., Saad, R., & Fiskawarni, T. (2025). Direction of gamification in science education: Literature review and indexed bibliography. *International Journal of Learning, Teaching and Educational Research*, 24(4), 568–591. <https://doi.org/10.26803/ijlter.24.4.26>
- Ryan, R. M. & Deci, E.L. (2000) Intrinsic and Extrinsic Motivations: Classic Definitions and New Directions, *Contemporary Educational Psychology*, Volume 25, Issue 1, 2000, Pages 54-67, ISSN 0361-476X, <https://doi.org/10.1006/ceps.1999.1020>
- Sholihah, H. I., Imelda, & Annas, H. (2024). Breaking through language barriers: The importance of foreign language learning in an era of globalisation. *Indonesian Journal of Education (INJOE)*, 4(2), 545–554. <https://injoe.org/index.php/INJOE/article/view/147>



12. Sulaiman, S. S. (2020). An Analysis on The Students' Language Learning Strategies in Learning English. *Vision: Journal for Language and Foreign Language Learning*, 9(1). <https://doi.org/10.21580/vjv9i14473>
13. York, J. (2023). Engaging with the world: Applying connected learning in a university language learning context. *Foreign Language Annals*, 56(2), 334–361. <https://doi.org/10.1111/flan.12691>