

The impact of gamified language learning apps on EFL learners' motivation for spoken English development: A case of Duolingo

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Abstract. The gamified learning mode has been widely concerned in the field of language education in recent years, especially in enhancing the speaking ability of English as a foreign language (EFL) learners. This study uses Duolingo as the research platform and adopts a semi-structured interview method to explore the impact of gamification design on speaking expression willingness, self-confidence and continuous participation. The results show that Duolingo is effective in stimulating speaking practice motivation in the initial stage, but it still has limitations in terms of voice feedback, real context construction, and deep expression support. Based on user feedback, this paper puts forward suggestions for improving the integration of the AI feedback system and classroom teaching, and emphasizes the guiding role of teachers in the use of gamified platforms.

1 Introduction

In the context of globalization and the accelerated integration of educational technology, oral English proficiency is becoming a key language competence for non-English speaking learners. However, traditional EFL classrooms have long emphasized grammar and writing skills, lacking training in authentic expression and communication scenarios, leading to students generally facing problems such as oral anxiety, insufficient self-expression confidence, and low participation [1]. At the same time, the rise of mobile learning and gamification design has brought breakthrough changes to the way language learning. As one of the most popular language learning platforms in the world, Duolingo has built a low-risk, high-interaction practice environment through mechanisms such as points, challenges, rankings, and speech recognition, which has attracted widespread attention [2]. In recent years, many studies have shown that Duolingo performs well in vocabulary acquisition and learning continuity, but its effect in promoting oral ability improvement, especially in improving learners' willingness to output and interactive participation, still needs to be explored in depth [3]. In addition, most existing studies focus on platform design and quantitative analysis of learning outcomes, lacking a qualitative understanding of user subjective experience and interaction perception, especially in the application of the oral dimension. Therefore, this paper takes Duolingo as a case, adopts a semi-structured interview method, and explores the motivation

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changes of Chinese EFL graduate students in using the platform for oral practice. Participation behavior, feedback experience, and use dilemma, aiming to reveal the actual role and limitations of gamified learning on EFL oral development from the perspective of users, and put forward practical suggestions for optimizing design and teaching integration.

2 Method and results

2.1 Method

This study adopts a qualitative research design, taking EFL graduate students in the School of Education at the University of Bristol as the core research object, to explore their cognitive, emotional and behavioral experiences in using Duolingo for English oral learning. The study adopted purposeful sampling, and a total of 10 Chinese graduate students with an English as a foreign language background were recruited as participants. They all have a high level of English proficiency, have a clear need for oral improvement, and have used Duolingo to learn English for more than 12 weeks in the past six months, with a frequency of no less than 3 times a week. The main reason for choosing this group is that they have strong language reflection ability and critical learning awareness, and can make in-depth experiential judgments on the structure and effectiveness of gamified learning.

The data collection was completed through remote interviews via Zoom, with an average duration of 35 minutes. The interviews were designed based on a semi-structured outline and referenced self-determination theory. According to the constructivist view of language learning, the focus is on: The role mechanism of Duolingo in stimulating oral motivation; The degree of matching between platform tasks and the depth of language output; The guiding function of the feedback system for expression adjustment; The impact of social absence on the learning process. The research has ensured informed consent, confidentiality, and ethical approval during the research process.

2.2 Result

After transcribing the interview recording, the six-step thematic analysis method proposed by Braun and Clarke was used for systematic coding and induction, and three key themes were formed [4]. First, the gamification mechanism has a significant stimulating effect on initial motivation. Most of the participants regarded the "winning streak reward" and "rank ranking" as the key motivation for sticking to the check-in, but also pointed out that this external incentive gradually weakened the attention to the content of the task itself, forming a superficial participation behavior of "completing it for the sake of completing it". Second, Duolingo's oral tasks mainly use single-sentence imitation speech practice, which helps beginners break the "fear of speaking" but lacks training in layered and coherent output. One graduate student pointed out: "I speak English every day, but I have never really organized a complete point of view." This shows that although platform tasks can guide language output, they cannot support the improvement of expression construction and pragmatic judgment. Third, the lack of real interaction is widely considered to be the core obstacle affecting oral development. Participants generally believed that "no audience", "no response" and "no negotiation" made the expression behavior lack purpose, making it difficult to stimulate high-level cognitive processing and discourse organization ability.

In conclusion, although Duolingo has lowered the threshold of oral proficiency and increased the frequency of participation through gamification mechanisms, its task design and

feedback system are difficult to meet the requirements of deep expression, social interaction, and critical construction in oral learning at the graduate level. This finding suggests that the structural characteristics of a single platform will directly affect learners' understanding, expectations, and strategy choices for language output, and require more cognitively challenging and interactive reconstruction at the design level.

3 Problem analysis

First of all, the voice practice tasks on the platform emphasize repetition and speed too much, neglecting the quality of expression. Duolingo mainly trains learners to speak English through short sentence imitation, which helps beginners form basic speech output habits, but it is also easy to create the illusion that "as long as you say it." Many respondents mentioned that even if their pronunciation is inaccurate and their intonation is stiff, the system will still give them "correct" feedback. This lack of a precise feedback mechanism makes it difficult for learners to judge their real language level.

Secondly, Duolingo's feedback method is relatively mechanical, and it cannot provide targeted correction suggestions according to the specific problems of learners. Most systems only judge "right" or "wrong", and rarely point out "where is wrong" or "how to improve". Zou et al. show that if automatic speech recognition does not provide detailed feedback, it is easy for learners to ignore the details of language expression, thus forming a "low standard" self-awareness [5]. In the interview, students also mentioned that although they complete exercises every day, they still feel that their words do not express themselves in real conversations and they do not know how to organize sentences.

Third, the lack of a real interaction environment is Duolingo's core weakness in oral training. Most of the tasks on the platform are single-person operations, and users face the system rather than real listeners. Although this "isolated speech" learning method is convenient for practicing pronunciation, it cannot exercise important abilities such as expressing opinions, responding to others, or participating in discussions. Peláez-Sánchez and Velásquez-Durán emphasize that language learning is not only about outputting words and sentences, but also about establishing context, adjusting discourse strategies, and achieving meaning negotiation through interaction [6,7]. Duolingo's tasks lack these communicative elements, which prevent learners from using the language in more complex communication.

Overall, Duolingo is more suitable for beginner-level speech imitation and language habit formation in terms of design, but for learners who want to develop more complex, realistic, and flexible expression abilities, it still has structural deficiencies in terms of task depth, feedback mechanism, and interactive context.

4 Discussion

To more effectively support the real development of EFL learners in oral expression, this paper proposes four interrelated optimization strategies based on the previous problem analysis. These suggestions not only focus on the improvement of platform functions but also emphasize how to help learners move from "doing tasks" to "constructing language ability" through design, feedback, interaction, and the integration of teaching.

4.1 Expression-driven task design

Learning a language is not only about imitating how others speak, but more importantly, it is

about being able to express your ideas clearly. At present, many platform tasks only require users to imitate a sentence or say a phrase without a clear context or expression goal. This makes learners accustomed to "just say it," but rarely consider "how to say it more clearly." According to the theory of task-based language teaching, truly effective language tasks should encourage students to use language in a certain context to solve problems or convey positions [8]. The platform can set up gradually increasing expression tasks, such as "expressing personal opinions," "describing a complex matter," or "responding to others' opinions," so that learners can practice language organization and logical expression through the setting of context.

4.2 Turning mistakes into learning moments

At present, many speech learning platforms simply judge "right" or "wrong", but without explaining "where is wrong" and "why is it wrong". This makes it difficult for learners to truly understand their problems and lack direction for improvement. Liu et al. pointed out that good feedback should be specific and clear, so that learners can adjust according to the prompts [9]. The platform can mark the location of inaccurate pronunciation through visualization, prompt intonation changes, and even provide standard pronunciation examples. In this way, learners not only know that "they didn't say it right", but also know "how to say it better". This kind of feedback can enhance learners' self-correction awareness, so that they can form a habit of reflection in their expression.

4.3 Making oral practice more authentic

Real oral expression is often completed in interaction. The EFL learners not only need to express the meaning clearly, but also need to understand others and respond to others. However, many language learning platforms limit language use to "talking to the system" and lack interactive elements. Liashuk suggests that interactive tasks with boundaries can also be designed in digital platforms, such as "listen to a voice expression and respond" or "choose the most suitable expression from multiple voice answers", to simulate the process of real conversation [10]. This kind of task will not make learners feel social pressure, and can help them think about "expressing to whom and for what" in a more realistic language environment, which can help improve their pragmatic awareness and communication ability.

4.4 Blending online practice with classroom expression

Even if technology is designed well, learning results will be limited if learners only use the platform as a "check-in tool". Teacher guidance can help students move from "completing tasks" to "understanding language". Soyoo et al. emphasize that incorporating informal digital learning into formal classrooms can better connect technology with teaching goals [11]. Platform tasks can be used as preparatory materials before class, while in class, students are guided to discuss their expression strategies, language choices, and communication difficulties when completing tasks, and even to reconstruct and reenact the tasks. This method of "doing online + speaking offline + expressing again" can make platform learning an effective starting point rather than an end for the development of oral ability.

In general, these four suggestions not only start from the technical function, but also combine the basic laws of language learning and the practical experience of teachers. Only when the goal is clear, the feedback mechanism is refined, the interaction path is real, and the teaching link is involved can the gamification platform truly move from "helping to persist

in use" to "supporting language development". The future of Duolingo and other similar platforms lies not in whether the incentive mechanism can continue to attract users, but in whether it truly understands and responds to the growth needs of learners in language expression.

5 Conclusion

This study takes Duolingo as the research case, focusing on the core theme of "the role and influence of gamified learning mode on the oral development of EFL learners", and explores how digital language tools affect learners' expression behavior and language construction ability through task design, feedback methods, and interaction structure. Unlike previous studies that emphasized the platform's "fun" and "persistence rate", this paper focuses more on its support for "expression quality", especially its adaptability to intermediate and advanced language learners. Through semi-structured interviews with 10 postgraduate users, this paper attempts to reveal whether the gamified learning platform can effectively support the growth of expression ability while stimulating oral participation.

The study found that Duolingo has a significant advantage in reducing oral anxiety and promoting the frequency of oral practice, especially by enhancing learning continuity through point mechanisms and daily check-ins. However, in terms of supporting high-level expression construction, the platform still has three structural deficiencies: First, oral tasks tend to focus on single sentence imitation, lack contextual driving, and expression challenges. Secondly, the feedback system is dominated by mechanical recognition and cannot effectively guide learners to make self-adjustments. Third, the form of interaction is closed, and learners find it difficult to engage in responsive and negotiable language practice.

In response to these problems, this paper proposes four improvement suggestions, covering task design driven by expression, layered feedback mechanism, controllable interaction scene, and mixed teaching strategy guided by teachers, aiming to promote the transformation of the platform from "operation support" to "expression growth" function.

In conclusion, the game-based learning platform has a positive potential in EFL oral teaching, but its true educational value depends on whether it can provide systematic language expression support beyond the incentive mechanism. Only by focusing on the integration of task depth, feedback quality, and interaction structure can gamified learning go beyond "persistent use" and become a real path to help language growth.

References

1. V. Braun, V. Clarke, Using thematic analysis in psychology. *Qual. Res. Psychol.* **3**, 77 (2006).
2. E. M. Golonka, A. R. Bowles, V. M. Frank, D. L. Richardson, S. Freynik, Technologies for foreign language learning: a review of technology types and their effectiveness. *Comput. Assist. Lang. Learn.* **27**, 70 (2014).
3. S. Hasnain, S. Halder, Exploring the impediments for successful implementation of the task-based language teaching approach: a review of studies on teachers' perceptions. *Lang. Learn. J.* **51**, 1 (2021).
4. K. Ishaq, N. A. Mat Zin, F. Rosdi, M. Jehanghir, S. Ishaq, A. Abid, Mobile-assisted and gamification-based language learning: a systematic literature review. *PeerJ Comput. Sci.* **7**, e496 (2021).

5. M. Kessler, Supplementing mobile-assisted language learning with reflective journal writing: a case study of Duolingo users' metacognitive awareness. *Comput. Assist. Lang. Learn.* **36**, 1 (2021).
6. X. Liashuk, Informal language learning through interactive social media tools: current trends and practices. *ICERI Proc.* **1**, 5514 (2021).
7. F. Liu, K. Orkphol, N. Pannurat, T. Sooknuan, T. Muangpool, S. Kuankid, M. Phothisonothai, Intelligent mobile-assisted language learning: a deep learning approach for pronunciation analysis and personalized feedback. (2025).
8. I. C. Peláez-Sánchez, A. Velásquez-Durán, The impact of Duolingo on developing students' linguistic competence: an aspect of communicative language competences. *Educ. Pesqui.* **49** (2023).
9. M. Shortt, S. Tilak, I. Kuznetcova, B. Martens, B. Akinkuolie, Gamification in mobile-assisted language learning: a systematic review of Duolingo literature from public release of 2012 to early 2020. *Comput. Assist. Lang. Learn.* **36**, 517 (2021).
10. A. Soyoof, B. L. Reynolds, B. Vazquez-Calvo, K. McLay, Informal digital learning of English (IDLE): a scoping review of what has been done and a look towards what is to come. *Comput. Assist. Lang. Learn.* **1** (2021).
11. B. Zou, Y. Du, Z. H. Wang, J. Chen, W. Zhang, An investigation into artificial intelligence speech evaluation programs with automatic feedback for developing EFL learners' speaking skills. *SAGE Open* **13** (2023)