



# Gamified English Language Learning in the ESP Context

Sulistya Ningrum<sup>1</sup>

<sup>1</sup>English Department, State Polytechnic of Sriwijaya

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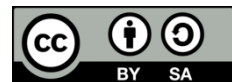
ESP

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## ABSTRACT

Gamification is the use of game elements in non-game contexts to improve learning and engagement. Although it has been increasingly recognized as a promising approach for enhancing English language learning, only a few studies have been conducted to investigate its roles, benefits, and drawbacks in English for Specific Purposes (ESP) pedagogy. This study discusses the use of gamification in language learning in ESP. This study employed a qualitative research approach, involving a collection and analysis of non-numerical data gathered from peer-reviewed journal articles and books. A literature review was used in the current study to provide an overview of the latest state of the literature on gamified English language learning in the ESP context. The novelty of the current study is to provide a complete review of the use of gamification in the ESP field, including the target audience, examples of gamification platforms, the gamification elements, the challenges, the effectiveness, the benefits, and the drawbacks of gamified English language learning. The target audience of gamified English language learning includes professionals or students seeking to improve their language skills for specific purposes. Gamification has been shown to provide several benefits, including increased motivation, active learning, and improved language proficiency. However, there are some challenges to the implementation of gamification in ESP, including curriculum integration, design and development, technology infrastructure, and assessment and evaluation.

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## Corresponding Author:

Sulistya Ningrum

Email: [sulistyaningrum@polsri.ac.id](mailto:sulistyaningrum@polsri.ac.id)

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## 1. INTRODUCTION

Gamification is the process of applying game design principles and mechanics to non-game contexts, such as language learning, with the goal of enhancing motivation, engagement, and learning outcomes. It involves the use of game elements such as points, badges, leaderboards, and rewards to create a more immersive and enjoyable experience for users (Deterding et al., 2011; Landers and Landers, 2014). Gamified language learning has been gaining popularity as a way to make learning more enjoyable and effective. In recent years, there has been a growing interest in gamified language learning, and research in this area has shown promising results.

One of the key benefits of gamification is its ability to provide an engaging and interactive learning experience that can help learners stay motivated and engaged. According to research by Hamari et al. (2014), gamification can provide a sense of achievement, mastery, and autonomy,

which in turn can increase users' motivation and engagement. This is particularly true when the gamified experience is designed to align with users' personal goals and interests. Furthermore, a meta-analysis by Sailer et al. (2017) found that gamification had a moderately positive effect on learning outcomes, with particularly strong effects on cognitive learning outcomes.

Several studies have investigated the effectiveness of gamified language learning. For example, a study by Li et al. (2016) found that gamified language learning was more effective than traditional language learning methods for improving learners' motivation and engagement. Another study by Huang et al. (2020) found that gamified language learning was more effective than traditional language learning methods for improving learners' vocabulary acquisition. Furthermore, a study by Hamari et al. (2014) found that gamification can have a positive impact on learning outcomes, motivation, and engagement in a variety of contexts. The study identified several key game elements that can be used to improve engagement and motivation, including points, leaderboards, badges, and feedback.

Despite its potential benefits, previous research stated that gamification is not a one-size-fits-all solution. A study by Werbach and Hunter (2012) suggests that effective gamification requires careful consideration of the target audience, the desired outcomes, and the specific game elements and mechanics that will be most effective. Additionally, gamification should be designed with ethical considerations in mind, such as ensuring that rewards are not overly coercive or manipulative.

Although gamification has been increasingly recognized as a promising approach for enhancing English language learning, only a few studies (Betaubun & Nasrawati, 2020; Mudure-Iacob, 2020; Mudure-Iacob, 2021; Wu, Hong, & Huang, 2020) have been conducted to investigate its roles, benefits, and drawbacks in ESP pedagogy. ESP refers to language learning that is tailored to meet the specific needs and goals of learners in a particular field, such as business, engineering, law, tourism, or medicine. ESP courses are designed to meet the specific needs and goals of learners in particular fields or professions, rather than teaching general English language skills (Dudley-Evans & St. John, 1998). ESP courses often use authentic materials, such as business reports, scientific articles, or legal documents, to provide learners with the language skills and knowledge they need for their professional or academic contexts. Research by Hyland (2006) suggests that ESP courses can be more effective than general English courses in helping learners achieve their specific language goals and improve their communicative competence in professional or academic contexts.

The current study employed a literature review to provide an overview of the most recent state of the literature on gamification in the ESP context. The novelty of the current study is to provide a complete review of the use of gamification in the ESP field, including the target audience, examples of gamification platforms, the gamification elements, the challenges, the effectiveness, the benefits, and the drawbacks of gamified English language learning. The current study in this field is significant because prior studies' findings reported in related publications can pave the way for future research and provide guidance and insights to researchers and practitioners.

## 2. METHOD

This study employed a qualitative research approach, involving a collection and analysis of non-numerical data gathered from peer-reviewed journal articles and books. While it may not provide numerical data, qualitative research generates rich and detailed information that can be used to inform practice and stance (Bachtiar, 2022; Sunubi & Bachtiar, 2022). According to Denzin and Lincoln (2017), qualitative research is characterized by its flexibility, openness to emerging findings, and emphasis on context and interpretation, allowing a generation of new insights and hypotheses for further investigation.

A literature review was employed in the current study to provide an overview of the latest state of the literature on gamified English language learning in the ESP context. A literature review is a critical and systematic analysis of scholarly articles, books, and other sources related to a particular research topic. It aims to identify, analyze, and synthesize existing research and literature on the topic, provide a comprehensive understanding of the current state of knowledge, and highlight gaps or inconsistencies in the literature that may warrant further research (Cooper, 2016; Hart, 2018). A literature review aimed to identify key concepts, theories, and research gaps related to the topic,

highlighting methodological approaches used in previous research, and identifying potential avenues for future research.

The following objectives have been established to be met at the final result of the data collection and analysis of the selected sources in this study:

- 1) Determining the target audience of the existing studies;
- 2) Determining the examples of gamification platforms used for ESP;
- 3) Determining the gamification elements used for ESP;
- 4) Determining the challenges of gamification in the ESP context;
- 5) Determining the effectiveness of gamification in the ESP context;
- 6) Determining the benefits and drawbacks of gamified English language of the existing studies.

### 3. RESULTS AND DISCUSSION

#### The Target Audience in the ESP Context

The target audience for gamification in English for Specific Purposes (ESP) can vary depending on the specific context and goals of the ESP program. However, in general, the use of gamification in ESP is often aimed at adult learners, who are typically professionals or students seeking to improve their language skills for specific purposes such as business, medicine, engineering, or the law.

Research studies have shown that gamification can be effective for adult learners in ESP programs. For example, a study by Radosavljevic and Giannakopoulou (2019) found that gamification improved the motivation and engagement of adult learners in a business English course. Similarly, a study by Reinders and Wattana (2014) demonstrated that gamification helped adult learners in an English for academic purposes (EAP) program to achieve better learning outcomes. Meanwhile, target audiences in other studies, such as those conducted by Mudure-Iacob (2021), Wu, Hong, & Huang (2020), and Pavel (2019), are students in higher education, including those at Taiwan's College of Medicine, English for transportation, and English for health studies. This shows that the target audiences for gamification in the ESP field can vary, including professionals and students.

This is because ESP is often aimed at learners who need to use English for specific purposes related to their field of study or work. ESP courses are designed to meet the specific language needs and goals of learners in certain particular fields or professions, rather than teaching general English language skills. The aim is to help learners develop the language and communication skills they need to perform specific tasks, such as giving presentations, writing reports, or negotiating contracts, in their professional or academic contexts. The use of gamified English learning may provide real-world experience, making it easier for learners to improve their abilities.

#### Gamification Platforms Used for ESP

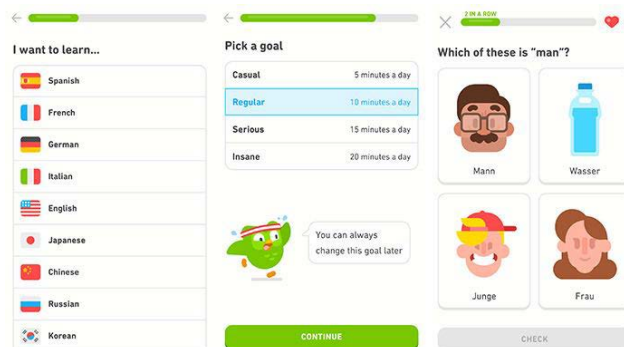
Numerous gamification platforms have been developed to enhance language learning. Below are some examples of popular gamification platforms in language learning and their descriptions. Table 1 displays examples of gamification platforms for language learning, as well as their developers and the date they were launched:

**Table 1.** Examples of Gamification Platforms used for ESP

<b>Gamification Platforms</b>	<b>Developers</b>	<b>Launch Dates</b>
Duolingo	Luis von Ahn and the team at Carnegie Mellon University	2011
Memrise	Ed Cooke and his team at Memrise Ltd.	2010

Rosetta Stone	Allen Stoltzfus and the team at Fairfield Language Technologies	1992
Busuu	Bernhard Niesner and Adrian Hilti	2008
Lingodeer	Minhong Kim and the team at LingoDeer Inc.	2016

*Duolingo.* Duolingo is a widely used gamification platform that offers language learning courses in various languages. It uses game-like elements such as rewards, badges, and points to motivate learners. Duolingo's language courses are designed in a way that makes learning fun and engaging, while also incorporating real-life contexts and scenarios.

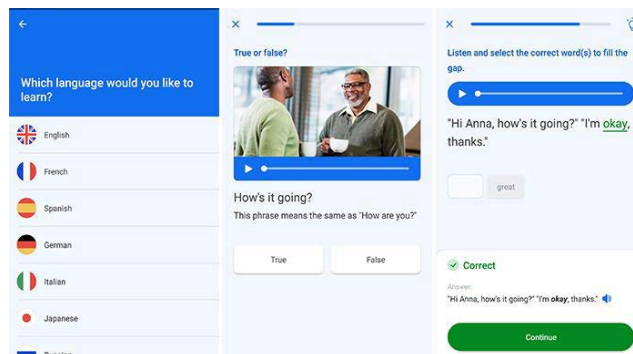


**Figure 1.** User Interface of Duolingo

*Memrise.* Memrise is another popular gamification platform for language learning that uses spaced repetition and mnemonic devices to help learners remember vocabulary and grammar rules. It incorporates various game-like features such as leaderboards, streaks, and learning streaks to encourage learners to practice regularly.

*Rosetta Stone.* Rosetta Stone is a well-known language-learning platform that uses immersive and interactive methods to teach language. It has a gamification component that includes points, badges, and progress tracking to motivate learners. Rosetta Stone's language courses are designed to be engaging and interactive, with a focus on real-life communication.

*Busuu.* Busuu is a gamified language learning platform that offers courses in multiple languages. It incorporates social learning into its platform, allowing learners to practice with native speakers and receive feedback on their progress. Busuu uses a variety of game-like elements such as badges, rewards, and leaderboards to motivate learners to continue practicing.



**Figure 2.** User Interface of Busuu

*Lingodeer.* Lingodeer is a relatively new gamified language-learning platform that offers courses in various languages. It uses game-like features such as levels, streaks, and progress tracking

to motivate learners. Lingodeer's courses are designed to be interactive and engaging, with a focus on developing communication skills.

Overall, gamification platforms in language learning use game-like features to enhance motivation and engagement. They incorporate elements such as rewards, badges, points, leaderboards, and social learning to create a fun and engaging learning experience.

### The Gamification Elements Used for ESP

Gamification has been increasingly used in language learning as a way to enhance motivation and engagement among learners. Here are some gamification elements that have been applied in language learning, along with citations and references. Table 2 displays the gamification elements used for ESP based on the existing studies.

**Table 2.** The gamification elements used for ESP

Gamification elements	Description
Points, badges, and leaderboards (PBLs)	immediate feedback and a sense of progress
Quests and challenges	story or game formats
Personalization and customization	activities based on learner's interests and preferences
Social interaction and collaboration	activities with peers or native speakers

1. *Points, badges, and leaderboards (PBLs)*: PBLs are one of the most commonly used gamification elements in language learning. They provide learners with immediate feedback and a sense of progress, which can motivate them to continue learning. A study by Hamari et al. (2014) found that PBLs can enhance learners' motivation and engagement in language learning.
2. *Quests and challenges*: Quests and challenges involve learners in a story or a game-like environment, where they complete tasks or missions to progress. This element can increase learners' immersion and provide them with a more enjoyable learning experience. A study by Wang et al. (2018) found that quests and challenges can enhance learners' intrinsic motivation and engagement in language learning.
3. *Personalization and customization*: Personalization and customization allow learners to choose their learning paths and activities based on their interests and preferences. This element can increase learners' autonomy and sense of control over their learning. A study by Kapp et al. (2014) found that personalization and customization can enhance learners' engagement and enjoyment in language learning.
4. *Social interaction and collaboration*: Social interaction and collaboration involve learners in activities with their peers or with native speakers of the target language. This element can enhance learners' communicative competence and provide them with opportunities to practice their language skills in authentic contexts. A study by Sánchez-Gómez et al. (2016) found that social interaction and collaboration can enhance learners' motivation and engagement in language learning.

### Challenges of Gamification in the ESP Context

While gamification has been found to offer several benefits for English for Specific Purposes (ESP) learners, there are also some challenges to its implementation. These challenges include (1) integration with curriculum, (2) design and development, and (3) assessment and evaluation.

Regarding integration with curriculum, gamification in ESP is integrating it with the existing curriculum. According to a study by Jaiswal and Dhir (2019), incorporating gamification into language learning requires careful planning and alignment with learning objectives, which may not always be easy to achieve.

Another challenge is designing and developing effective gamified learning materials. As noted by Zichermann and Cunningham (2011), gamification requires the development of engaging and motivating game elements that are also aligned with learning objectives. Gamification also requires a supportive technology infrastructure, which may be a challenge for some institutions. As

noted by Ke and Xie (2021), implementing gamification in language learning requires access to appropriate technology tools and resources.

Furthermore, assessing and evaluating the effectiveness of gamification in ESP can be challenging. According to a study by Chong and Siau (2019), assessing the impact of gamification on language learning requires careful consideration of the evaluation criteria and the types of data that are collected. Overall, gamified language learning in ESP presents several challenges, including integration with the curriculum, design and development, technology infrastructure, and assessment and evaluation. These challenges require careful planning and consideration to ensure effective implementation.

### **Effectiveness of Gamification in the ESP Context**

Several studies have investigated the effectiveness of gamification in English for Specific Purposes (ESP) and have found positive results. Gamification in ESP is found to be effective, as shown by some aspects, including (1) Improved motivation and engagement, (2) Increased language proficiency, (3) Positive attitude towards learning, and (4) Transfer of learning.

*Improved motivation and engagement.* Gamification has been found to improve motivation and engagement in ESP learners. According to a study by Rajabi and Mohamadi (2021), gamification increased learners' motivation and engagement in an ESP course, which in turn improved their language proficiency.

*Increased language proficiency.* Gamification has also been found to increase language proficiency in ESP learners. As noted by Alqahtani and Rajkhan (2018), gamification had a positive impact on learners' speaking and writing skills in an ESP course.

*Positive attitude towards learning.* Gamification has also been found to promote a positive attitude toward learning in ESP learners. According to a study by Jaiswal and Dhir (2019), gamification increased learners' enjoyment of learning and their confidence in using English for specific purposes.

*Transfer of learning.* Finally, gamification has been found to promote the transfer of learning to real-world contexts. As noted by Li et al. (2021), gamification improved learners' ability to apply their language skills in authentic situations, which is a key goal of ESP.

Overall, gamification has been found to be an effective approach for promoting motivation, engagement, language proficiency, and transfer of learning in ESP. These positive results suggest that gamification has the potential to enhance the effectiveness of ESP instruction.

### **Benefits and Drawbacks of Gamification in the ESP Context**

Gamification is the use of game elements in non-game contexts, such as education and training, to enhance learning and engagement. In the field of English for Specific Purposes (ESP), gamification has been found to offer several benefits, including increased motivation, active learning, and improved language proficiency. Gamification has been found to increase learners' motivation to engage with course content and activities. According to a study by Hamdan et al. (2018), gamification increased students' motivation to learn English for specific purposes, as well as their satisfaction with the course. Similarly, a study by Zhou et al. (2018) found that gamification improved students' motivation to participate in English writing activities.

Gamification can promote *active learning* by encouraging learners to interact with course materials and engage in problem-solving. In a study by Ke et al. (2019), gamification was found to enhance learners' engagement in English learning activities and promote a more active learning approach. Similarly, a study by Broukal et al. (2017) found that gamification increased students' participation in English grammar activities.

Gamification can also *improve learners' language proficiency* by providing opportunities for practice and feedback. In a study by Salim et al. (2019), gamification was found to improve students' speaking skills in English for specific purposes. Similarly, a study by Sun et al. (2021) found that gamification improved students' English reading comprehension skills.

**Table 3. Benefits and Drawbacks of Gamification in the ESP Context**

<b>Benefits</b>	<b>Drawbacks</b>
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Active learning	Lack of Authenticity
Improved language proficiency	Limited Focus
	Dependency on Technology
	Limited Transferability

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One of the main limitations of gamification in ESP is the lack of authenticity. Gamified activities may not reflect the authentic tasks and situations that learners will encounter in their specific professional contexts (Kapp, 2012). This can lead to a gap between what learners learn through gamification and what they need to know and do in real-world situations. Gamification may have a limited focus on specific language skills that are required in ESP contexts. For example, gamified activities may focus more on vocabulary and grammar rather than the communication skills that are required in specific professional contexts (Zichermann & Linder, 2013).

Gamification often involves the use of technology, such as computer games, mobile apps, and online platforms, which may not be accessible or affordable to all learners (Deterding et al., 2011). This can limit the reach and effectiveness of gamification in ESP language learning. Gamified activities may not transfer the knowledge and skills learned to real-world contexts. Learners may not be able to apply what they have learned through gamification in authentic professional situations (Nicholson, 2012). Overall, gamification offers several benefits and drawbacks for English for Specific Purposes learners, including increased motivation, active learning, and improved language proficiency. These benefits are supported by various studies in the field.

#### 4. CONCLUSION

Gamification, the use of game elements in non-game contexts, has been increasingly used in language learning to enhance motivation and engagement among learners. Gamification involves the use of game elements in non-game contexts, such as education and training, to enhance learning and engagement. In the field of English for Specific Purposes (ESP), gamification has been found to offer several benefits, including increased motivation, active learning, and improved language proficiency. However, there are also challenges to the implementation of gamification in ESP, including integration with the curriculum, design and development, technology infrastructure, and assessment and evaluation. Several studies have investigated the effectiveness of gamification in ESP and have found positive results.

In terms of the benefits of gamification in the ESP context, it is important to note that it can increase motivation, which is a critical factor in language learning. Points, badges, and leaderboards (PBLs) are commonly used gamification elements in language learning that provide learners with immediate feedback and a sense of progress, which can motivate them to continue learning. Similarly, quests and challenges involve learners in a story or game-like environment, which can increase learners' immersion and provide them with a more enjoyable learning experience. Personalization and customization allow learners to choose their learning paths and activities based on their interests and preferences, which can increase learners' autonomy and sense of control over their learning. Social interaction and collaboration involve learners in activities with their peers or with native speakers of the target language, which can enhance learners' communicative competence and provide them with opportunities to practice their language skills in authentic contexts.

However, there are also challenges to the implementation of gamification in ESP. One challenge is integrating it with the existing curriculum, which requires careful planning and alignment with learning objectives. Another challenge is designing and developing effective gamified learning materials that are aligned with learning objectives. Additionally, implementing gamification in language learning requires access to appropriate technology tools and resources, which may be a challenge for some institutions. Finally, assessing and evaluating the effectiveness of gamification in ESP can be challenging, and requires careful consideration of the evaluation criteria and the types of data that are collected.

Despite these challenges, several studies have found that gamification is effective in enhancing language learning outcomes in ESP learners. Gamification can improve motivation and

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engagement, which can lead to improved language proficiency. It can also promote active learning by encouraging learners to interact with course materials and engage in problem-solving. Moreover, gamification can improve learners' language proficiency by providing opportunities for practice and feedback.

In conclusion, gamification offers several benefits for English for Specific Purposes learners, including increased motivation, active learning, and improved language proficiency. However, implementing gamification in ESP requires careful planning and consideration to ensure effective implementation. By addressing the challenges associated with gamification, language educators can leverage this technique to enhance language learning outcomes for ESP learners.

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