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Article

Unraveling the Influence of Story Content and Language on Foreign Language Learners' Narrative Experiences

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ABSTRACT

Background/Objectives: Self-regulated Learning (SRL) is essential in language learning, particularly in foreign languages where learners have limited exposure to the target language outside the classroom. Although storytelling has demonstrated potential in promoting SRL in several domains, studies in foreign language learning remain underexplored, and it is unknown which narrative elements contribute most to developing SRL learning. A study was designed with the aim of knowing how fictional stories in a foreign language, portraying a protagonist's SRL experiences, influenced Foreign Language Learners (FLLs). **Method:** A total of 267 first-year Japanese foreign language students read stories in both English and Japanese and were assessed in comprehension, emotional engagement, empathy, and narrative transportation. **Results:** The results showed that narratives containing emotional elements related to the protagonist's learning process enhanced learners' comprehension, emotional connection, and reflection when reading stories in native language (Japanese) than when reading stories in foreign language (English). Additionally, stories that depicted the use of specific learning strategies elicited stronger self-referential responses than those emphasizing emotional states alone. **Conclusions:** These findings suggest that SRL-themed storytelling, when structured with strategic and emotional depth, can support FLLs reflective engagement and offer practical insights for language educators.

Exploración de la Influencia del Contenido de la Narrativa y el Lenguaje en las Experiencias Narrativas de Aprendices de Lenguas Extranjeras

Palabras clave:
Aprendizaje autorregulado
Narración de historias
Estudiantes de lengua extranjera (EFL)
Compromiso con la narrativa
Autorreflexión

RESUMEN

Antecedentes/Objetivos: El Aprendizaje Autorregulado (AAR) es esencial para el aprendizaje de idiomas, especialmente en contextos donde el idioma meta no se usa fuera del aula. Aunque se ha demostrado que la narración de historias puede promover el AAR, su impacto en el aprendizaje de idiomas ha sido poco explorado y se sabe poco sobre qué elementos narrativos contribuyen más a este efecto. Se diseñó un estudio con el objetivo de conocer cómo las historias ficticias en un idioma extranjero, que representan las experiencias de AAR de un protagonista, influyen en aprendices de lengua extranjera (ALEs). **Método:** Participaron 267 estudiantes universitarios que leyeron versiones en inglés y japonés de historias adaptadas de las narrativas de AAR fueron evaluados en comprensión, empatía, conexión entre el yo y el otro e inmersión narrativa. **Resultados:** Los resultados mostraron que las narrativas con elementos emocionales vinculados al aprendizaje del protagonista mejoraron la comprensión, el compromiso emocional y la reflexión sobre experiencias previas de aprendizaje cuando leyeron historias en lengua nativa (japonés) que cuando leyeron historias en una lengua extrajera (inglés). Además, las historias que describen estrategias concretas provocaron respuestas autorreferenciales más fuertes que aquellas centradas solo en emociones. **Conclusiones:** Los hallazgos sugieren que la narración de historias temáticas de AAR, cuando se estructuran con profundidad emocional y estratégica, pueden respaldar el compromiso reflexivo de los FLLs y ofrecer conocimientos prácticos para los profesores de idiomas.

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Introduction

English is now acknowledged as the global lingua franca, shaping our daily interactions with individuals from diverse backgrounds. Its use spans international business, academic research, and online communication, thereby making the ability to use English a key component of global competence. In the European Union (EU), where English is learned as a foreign language, it is the most widely studied language, with approximately 96% of higher secondary students enrolled (Eurostat, 2024). This widespread engagement with English reflects not only its instrumental value but also growing expectations for educational systems to prepare learners for participation in a global society.

In Japan, a country where English is taught as a foreign language, similar expectations are reflected in national education policy. Japan's Ministry of Education, Culture, Sports, Science and Technology (MEXT) has emphasized the need to cultivate foreign language communication skills in students (MEXT, 2016), stating that English education should promote the ability to think and express ideas in English. However, this goal remains challenging to achieve because English is rarely used outside of classroom settings. Japan presents a particularly salient example of a context where limited access to authentic communicative environments restricts opportunities for learners to use English meaningfully in their daily lives. Terasawa (2021), for example, reported that Japanese people use English less than five times per year on average, with fewer than 20% identifying as English users and less than 10% using productive English skills, such as speaking or writing.

The limited exposure to English, particularly in productive forms, highlights the importance of helping learners develop the capacity to manage their own language learning. To support consistent effort in English learning among FLLs, developing autonomous learning skills is essential. This approach empowers learners to independently and proactively engage in learning, fostering higher motivation to achieve their predetermined learning objectives and enabling them to make progress even outside formal classroom environments.

One effective method to enhance autonomous learning is through cultivating self-regulated learning (SRL) skills, a key focus in the PISA 2025 framework (Organisation for Economic Co-operation and Development, 2023). SRL refers to the process by which learners personally activate and systematically sustain cognitions, motivations, and behaviors that are directed toward the attainment of their learning goals (Zimmerman & Schunk, 2011). It involves key sub-processes such as goal setting, strategy use, self-monitoring, and self-reflection, which are especially critical for learners who must take ownership of their language development. In language education, SRL has been shown to play an important role in fostering learner autonomy and enhancing performance (Graham et al., 2020; Holec, 1981; Little, 1991; Morshedian et al., 2017; Teng & Zhang, 2020). Research has also demonstrated that SRL can influence motivation, self-efficacy, and persistence, all of which are crucial for sustaining language learning over the long term.

The significance of SRL has become even more pronounced since 2020, as global increases in non-face-to-face teacher-student interactions have highlighted the need for learners to be more proactive in managing their own learning processes, particularly in contexts such as language education, where engagement and practice are essential. In Japan, in-class time for language acquisition is generally considered insufficient (Hiromori, 2015), and learners often lack opportunities for active language learning outside the classroom. According to the 2022 MEXT National Student Survey, only 40% of Japanese university students felt that their English skills had improved sufficiently during their academic lives. These findings suggest that current instructional methods may not be providing adequate support for learners to develop the autonomy and persistence needed for long-term language improvement. In many cases, language teaching environments do not facilitate the kind of deep reflection necessary for learners to fully understand and take ownership of their learning processes (Kato & Mynard, 2015).

For FLLs, it is essential to acquire knowledge, skills, and abilities to address learning challenges, devise solutions, and pursue goals. As university study often marks the culmination of formal education for many students, it is important that they be equipped with the tools needed to continue improving their language proficiency independently after graduation. The transition from structured classroom learning to self-directed, lifelong learning requires an internalized set of SRL skills that can guide learners through future language-related tasks in both personal and professional contexts.

One promising method for promoting SRL is narrative-based instruction. Narratives allow learners to engage with the experiences of others, fostering metacognitive awareness, emotional regulation, and goal-oriented behaviors through reflection. In particular, stories can serve as a form of vicarious learning, enabling learners to simulate others' problem-solving strategies and internalize them without direct experience. A narrative recounts personal experiences and provides a lens for understanding behavior (Sarbin, 1986). In learning environments, storytelling includes both "telling a story" and "receiving a story" (see Table 1). In the latter context, storytelling can be considered a form of vicarious learning (Rosário et al., 2019). This involves knowledge acquisition (Gholson & Craig, 2006) without direct interaction. The story-receiver recalls their past experiences by assimilating others' experiences (i.e., mediated association; Hoffman, 2000), leading to observational learning and imitation (i.e., modeling; Bandura, 1977) through vicarious understanding of others' narrated experiences.

In language learning contexts, storytelling has become a significant activity (Krashen, 1981). Teachers use target-language stories to enhance vocabulary and syntax while immersing learners in narratives, strengthening receptive skills like reading and listening. Numerous studies have highlighted storytelling's advantages in language learning, emphasizing its role in cultivating language skills and abilities (e.g., Hwang et al., 2016; Isbell et al., 2004; Li & Seedhouse, 2010). Recently, narratives have gained attention in multiliteracies pedagogy, an approach that cultivates language

Table 1
Matrix of two Types of Storytelling

	Receiving a story	Telling a story
To promote SRL	Vicarious learning narrative experiences	Self-schema construction
To enhance language skills	Grammar/lexical/ semantic knowledge and receptive skills (reading/ listening) development	Grammar knowledge development productive skills (writing/speaking) development

and literacy by accounting for the multimodal and global nature of communication. Within this framework, narratives help learners develop the ability to interpret, evaluate, and share information, construct meaning, and engage in critical thinking (Férez Mora & Coyle, 2023). Prior research has consistently demonstrated the efficacy of narrative approaches in enhancing SRL in diverse educational settings. For example, Rosário et al. (2010, 2015) implemented story-based SRL interventions among first-year university students from varied backgrounds and reported gains in SRL strategy use, task completion, self-efficacy, and the perceived value of strategies. In online learning, Núñez et al. (2011) used text-based narratives over 13 weeks with Spanish college students, resulting in deeper learning approaches, improved knowledge and interpretation, and increased SRL motivation. These findings provide empirical support for the use of stories as tools to promote learners' engagement with their own learning processes.

Despite such promising findings, studies on storytelling in language learning contexts remain scarce. One such study by Seker (2015) examined an eight-week scenario-based intervention with pre-intermediate FLLs and reported self-perceived increases in SRL awareness and strategy use. However, this study relied solely on self-report measures and did not assess learners' behaviors or task performance, limiting its ability to demonstrate actual behavioral changes. Moreover, most SRL storytelling interventions have been designed within Western cultural and linguistic contexts. This raises the question of whether such materials are culturally and linguistically accessible to learners in other parts of the world.

This kind of study raises an important question: What types of content effectively promote SRL across various contexts? More specifically, can stories like "Letters from Gervase" (Rosário et al., 2015), developed in a European context, resonate with learners in other cultural settings? For instance, when such stories are used to promote SRL among learners in Japan, can students comprehend the narratives' core messages and envision themselves as the protagonist? Therefore, it is essential to determine whether the story's content resonates with learners in various contexts. For example, if the background and characters are culturally unfamiliar, their effectiveness in fostering SRL may be diminished (Brownell, 2021).

Another key issue is the impact of language on comprehension and narrative experience. If a story is not in the readers' native language, can they comprehend it similarly and have comparable narrative experiences? The impact of stories from different cultural contexts on learners from another culture remains underexplored, particularly in terms of their emotional effects. Additionally, the extent to which stories written in a second or foreign language can foster SRL and English skills remains unclear.

Therefore, this study investigated how storytelling enhances the comprehension and narrative experiences of Asian FLLs, including their emotions. It examined whether European narratives effectively convey messages and evoke meaningful experiences in Asian contexts. By examining both the language and thematic content of SRL stories, this study seeks to clarify how linguistic accessibility and cultural relevance interact to influence learners' narrative engagement and learning outcomes.

This study aimed to gain insights into the educational value of SRL stories crafted in a non-native language for the readers. Its four main research questions were as follows:

RQ1: Does the language in which the SRL story is given (i.e., English or Japanese) affect comprehension of FLLs? Does the content of the story (i.e., what it is about) affect comprehension of FLLs?

RQ2: Does the language in which the SRL story is given affect transportation of FLLs into the story? Does the content of the story affect their transportation?

RQ3: Does the language in which the SRL story is given affect experiences of FLLs of overlapping with the protagonist? Does the content of the story affect this experience?

RQ4: Does the language in which the SRL story is given affect empathic reactions of FLLs? Does the content of the story affect their empathic reactions?

These research questions investigate the impact of language (English vs. Japanese) and story content on key narrative outcomes: comprehension, transportation, self-other overlap, and empathy. Investigating these variables will help determine the extent to which SRL stories can foster reflective engagement, metacognitive awareness, and learning motivation in foreign language learning contexts.

Method

Participants

The participants were 318 first-year university students aged 18 to 21, majoring in psychology, sociology, marketing, or global Japanese studies. Of these, 131 were women (41.2%). The sample size exceeded the minimum of 158 calculated by G*Power for a medium effect size (f = .25) and a test power of 1- β = .8.

The participants were enrolled in the first author's English reading classes and had attained a Common European Framework of Reference (CEFR) level of English language proficiency ranging from A1 (beginner level – i.e., "low proficiency") to B1 (intermediate level – i.e., "intermediate proficiency"). Table 2 presents the participants' mean English vocabulary size, measured using Nation and Beglar's (2007) test. No significant differences in vocabulary scores were observed across story and language in which the stories were presented, $F(5, 261) = 0.17$, n.s., indicating baseline equivalence for the groups that participants were assigned to.

Instruments

The study utilized the "Letters from Gervase" stories, developed by Rosário et al. (2006) to promote SRL among university students. This tool features 13 letters exchanged between Gervase, a male university student, and his alter ego, "Navel." Through these letters,

Table 2
Descriptives of Receptive Vocabulary Size (Word Family)

	#4		#5		#12	
English	*M*	6982.69	*M*	7321.62	*M*	6997.92
	SD	*2010.63*	*SD*	*3285.59*	*SD*	*2227.34*
Japanese	*M*	6880.00	*M*	7091.67	*M*	7178.38
	SD	*3012.14*	*SD*	*1571.40*	*SD*	*2236.95*

Table 3
Title and Summaries of Three SRL Stories (Núñez et al., 2011; Rosário et al., 2006)

Title and summary of the letters	Macro and micro SRL strategies
#4 Do you know how to beat procrastination, Gervase? This story follows Gervase as he struggles with procrastination and faces an impending report deadline. Communicating with his alter ego, Navel, Gervase receives tough advice on responsibility and time management. Through practical tips and motivational quotes, Navel helps Gervase overcome distractions and approach his assignment more effectively.	[Macro] Putting off tasks 1 Making "To do" lists 2 Organizing the study environment 3 Procrastination 4 Relaxation techniques
#5 Why do we forget? The story depicts Gervase, a university student grappling with academic challenges, receiving advice from Navel. Through insightful reflections on memory, study habits, and the purpose of learning, Navel guides Gervase to adopt a more disciplined and thoughtful approach to his education and personal growth.	[Macro] Information processing 1 Short-term memory 2 Long-term memory 3 Forgetting 4 Instrumentality of Learning
#12 What exactly is this test anxiety? The story portrays Gervase as he humorously narrates his intense test anxiety before, during, and after an exam. Through vivid descriptions and witty observations, Gervase explores the chaotic atmosphere, his nervous thoughts, and the advice shared among students, ultimately reflecting on the challenges of academic stress and coping mechanisms.	[Macro] Test anxiety 1 Aspects of anxiety (feelings and emotions) 2 Internal and external distracters 3 Plagiarism and copy writing 4 Relaxation techniques

Note. The strategies of Story#4 and 12 were derived from Rosário et al. (2007) and Núñez et al. (2011); those of Story#5 were from Núñez et al. (2011).

Table 4
Readability of the Three SRL Stories

	#4	#5	#12
Flesch-Kincaid Grade Level	6.4	8.0	8.4
Flesch Reading Ease	71.5	64.5	63.4
Number of Words	1886	1983	2106
Number of Sentences	142	128	129
Number of Paragraphs	50	36	39
CEFR level	B2	B2	B2
IELTS Level	5-6	5-6	5-6
Number of very long sentences[1] (percentage of the total sentences)	25 (18%)	35 (27%)	38 (29%)
Number of long sentences[2] (percentage of the total sentences)	52 (37%)	64 (50%)	68 (53%)

Note. 1 Sentences with more than 30 syllables; 2 Sentences with more than 20 syllables.

Table 5
Means and SDs of the Three SRL Stories in the Prior Check

		#4		#5		#12	
English	*M*	3.31	*M*	3.31	*M*	3.52	
	SD	*0.99*	*SD*	*1.09*	*SD*	*1.13*	
Japanese	*M*	3.81	*M*	3.42	*M*	3.73	
	SD	*1.00*	*SD*	*0.93*	*SD*	*0.86*	

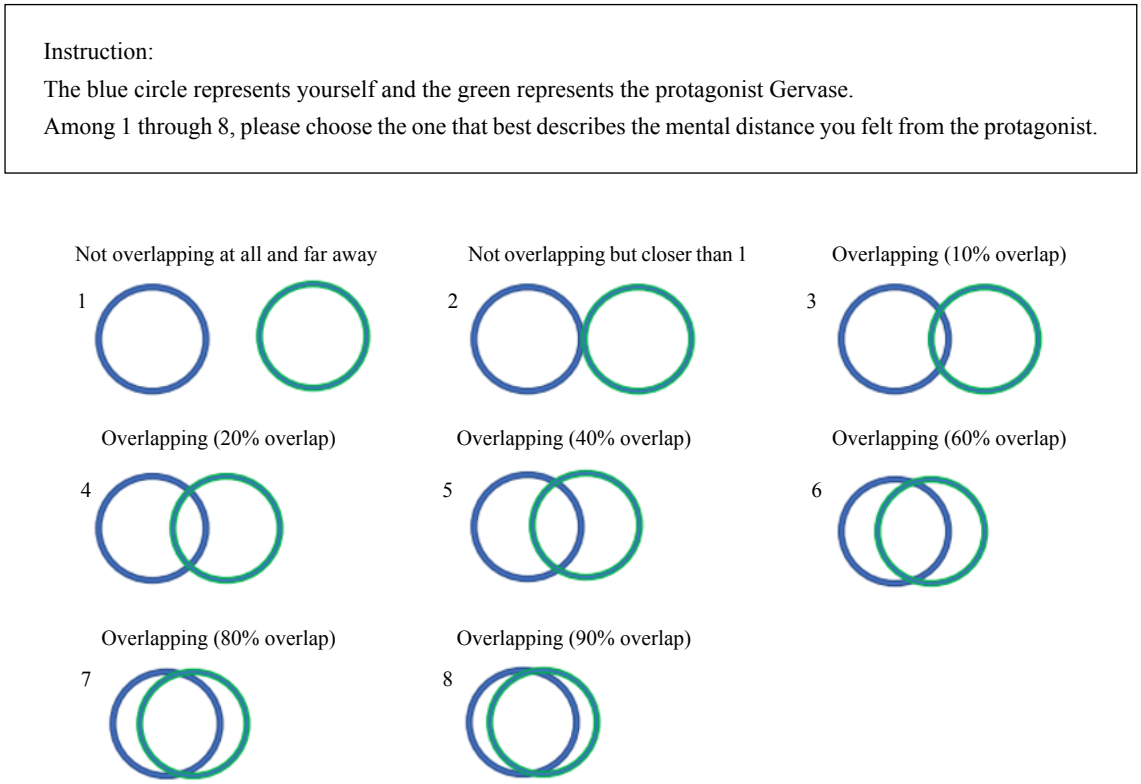
Gervase shares his learning challenges, while Navel offers SRL-based advice (see Table 3). Participants engaged with three selected stories from this series, each covering distinct topics outlined in Table 3. Readability metrics for the English versions of these stories are detailed in Table 4.

To assess participants' understanding of the stories, comprehension tests were developed in both English and Japanese. These consisted of five multiple-choice questions created by the first and second authors, aimed at evaluating both surface-level and inferential comprehension of key narrative content. For example, the test items for Story #4 asked about the urgent academic task faced by Gervase, the specific SRL strategies proposed by Navel, and content discussed in Gervase's university lectures. Prior to the main study, the equivalence of the comprehension questions and the difficulty of the stories were evaluated with a pilot group of 59 first-year university students. One-way ANOVA results revealed no significant differences in comprehension scores among the stories in either the English, $F(2, 60) = 0.53$, n.s., or Japanese version, $F(2, 54) = 2.2$, n.s., indicating that the selected materials were appropriately balanced in difficulty across both language conditions. Table 5 presents the descriptive statistics for each story's comprehension test.

In addition to comprehension assessments, the study examined participants' narrative engagement using the Japanese short form of the Narrative Transportation Scale developed by Osanai and Kusumi (2016). This six-item measure, which has demonstrated high internal consistency (Cronbach's $\alpha = .80$ to .85 for their study materials), assesses cognitive, emotional, general, and imaginative aspects of transportation on a 7-point Likert scale (1 = *not at all*, to 7 = *very much*). The cognitive facet assesses mental visualization, the general facet measures narrative curiosity, the emotional facet measures affective engagement, and the imaginative facet focuses on visualizing the protagonist. To explore perceived relational closeness to the protagonist, the study employed a modified version of the Inclusion of Other in Self (IOS) scale (Aron et al., 1992), as adapted by Tobari (2005). Participants selected one of several diagrammatic representations of overlapping circles (see Figure 1) to indicate their perceived closeness to Gervase, and they were encouraged to clarify their choice using brief written descriptions or percentage estimations.

Empathic reactions were assessed through written responses to prompts asking participants to reflect on Gervase's thoughts and feelings. These responses were coded using rubrics based on narrative persuasion theory (Green & Brock, 2000; Moyer-Gusé & Dale, 2017) and empathy theory (Hoffman, 2000), capturing five core categories: emotion, self-reflection, perspective-taking, thought for the protagonist, and lesson learned (see Table 7). Each comment was coded binarily (0 = *absence,* 1 = *presence*) by the first author and an independent rater uninvolved in the outcomes of this study, achieving a Cohen's $\kappa = .82$ for interrater agreement (above the criterion of. All discrepancies in coding were resolved collaboratively before the full dataset was independently coded by both raters.

Figure 1
Instruction Based on Modified Version of the Inclusion of Other in Self Scale (Tobari, 2005)



Procedure

This study was approved by the Human Ethics Committee of Kyoto University (approval number CPE-375). All participants were informed of the study's purpose and provided voluntary consent prior to participation. A total of 318 students enrolled in four English reading classes participated in the study and were randomly assigned to one of twelve conditions outlined in Table 6.

The experimental design followed a 3 (story content: Story #4, #5, or #12) × 2 (language: English or Japanese) × 2 (presentation order: Japanese-First vs. English-First) structure. Each participant read two different stories, one in English and the other in Japanese, with the order of presentation counterbalanced across conditions to minimize order effects. For example, a participant in Condition 8 read Story #4 in English and Story #12 in Japanese, while a participant in Condition 12 read the same stories in reverse order.

Over the course of two weeks, participants completed tasks through the university's learning management system (LMS). In the first week, they took a vocabulary size test based on the format developed by Nation and Beglar (2007), then read one of the assigned stories according to their condition. After reading, they completed a comprehension test and submitted a written comment in Japanese about Gervase's thoughts and feelings. These responses aimed to capture cognitive and emotional engagement with the story. Comprehension test scores were automatically calculated (1 for each correct answer, 0 for incorrect) via the LMS. Additionally, participants completed the Japanese short form of the Narrative Transportation Scale (Osanai & Kusumi, 2016) to assess the extent of their immersion in the story.

In the second week, participants repeated the same sequence of tasks with a different story presented in the alternate language.

Table 6
Task Conditions Accounting for Reading Order and the Language Used in the Stories

Condition	**1**	**2**	**3**	**4**	**5**	**6**
First	#4 Jp	#4 Jp	#5 Jp	#5 Jp	#12 Jp	#12 Jp
Second	#5 En	#12 En	#4 En	#12 En	#4 En	#5 En
Condition	**7**	**8**	**9**	**10**	**11**	**12**
First	#4 En	#4 En	#5 En	#5 En	#12 En	#12 En
Second	#5 Jp	#12 Jp	#4 Jp	#12 Jp	#4 Jp	#5 Jp

Note. En: English; Jp: Japanese.

Data Analysis

Prior to analysis, data quality was examined, and 42 students who could not comprehend over 80% of an English story without AI translation and 9 students who failed to follow instructions were excluded.

To address the first three research questions, which focused on comprehension, transportation, and self-other overlap across the six different story-language combinations (Story #4, #5, and #12 in both English and Japanese), one-way ANOVAs were conducted.

Table 7
Coding Categories for Participants' Written Answers

Subcategory	Further subcategory	Definition
1. Emotion	1a. Parallel response	[1]An actual reproduction in a participant of the protagonist's feeling
	1b. Reactive response	[2]Empathic reactions to a protagonist's state rather than a simple reproduction of that state in the participant
	1c. Emotion inference	[3]Conclusions that a reader draws about the emotional state of a protagonist
2. Self-reflection	2a. About general past study experiences	Description of a participant's past experiences in a general learning situation
	2b. About specific past study experiences	Description of a participant's past experiences in a specific learning situation related to the theme of the story
3.Perspective Taking	-	Description of what a participant does or how s/he feels if s/he were a protagonist
4. Protagonist	4a. Positive	Positive description to describe a protagonist
	4b. Negative	Negative description to describe a protagonist
	4c. Neutral	Description to describe a protagonist without any positive/negative judgment
5. Lesson	5a. From Gervase	Description representing that a participant adapts some lessons from a protagonist to his/her future learning
	5b. From Navel	Description representing that a participant adapts some lessons from advice given to a protagonist to his/her future learning
	5c. From the whole story	Description representing that a participant adapts some lessons from the whole story (more general than the other two further subcategories)

Note. [1,2]The definitions were quoted from Davis et al. (1996, p. 18) and slightly modified in accordance with the situation of this study; [3]The definition was quoted from Diergarten and Nieding (2016).

Table 8
Means and SDs in Story Comprehension for the Three Stories

	#4		#5		#12	
English	*M*	3.13	*M*	2.63	*M*	3.27
	SD	1.25	*SD*	1.16	*SD*	1.07
Japanese	*M*	4.00	*M*	3.46	*M*	3.63
	SD	1.10	*SD*	1.07	*SD*	1.12

Table 9
Means and SDs in Narrative Transportation for the Three Stories

	#4		#5		#12	
English	*M*	4.81	*M*	4.24	*M*	4.83
	SD	1.09	*SD*	1.07	*SD*	0.94
Japanese	*M*	5.59	*M*	5.04	*M*	5.40
	SD	0.76	*SD*	1.00	*SD*	0.96

These analyses were used to evaluate whether significant differences emerged based on story version or language condition.

For the fourth research question, which examined empathic reactions derived from participants' written responses, a nonparametric Kruskal-Wallis test was employed. The selection of these statistical methods ensured appropriate treatment of both continuous and binary variables and allowed for comparisons across the structured experimental conditions.

Results

This section presents findings corresponding to the four research questions specified in the introduction section.

Story Comprehension

A two-way ANOVA assessed the impact of story content and language on participants' comprehension, revealing no statistically significant interaction between story content and language, $F(2, 261) = 1.37$, $p = .255$. However, significant main effects were found for both story content, $F(2, 261) = 5.12$, $p = .007$, and language, $F(1, 261) = 23.92$, $p < .001$. Participants consistently scored higher when reading stories in Japanese than when reading stories in English (see Table 8). Furthermore, the mean comprehension test scores for each story improved as the readability level decreased, since the stories became easier to read. The Tukey HSD test for pairwise multiple comparisons identified significant differences between stories #4 and #5, $t = 0.61$, $p = .001$, and #5 and #12, $t = -.48$, $p = .016$. As hypothesized, stories in participants' native language facilitated better understanding. Additionally, stories with more emotional descriptions and relatable daily situations were more comprehensible.

Transportation

A two-way ANOVA examined the impact of story content and language used in a story on participants' transportation into an SRL story. No significant interaction was found between content and language, $F(2, 261) = 0.38$, $p = .683$, but both content, $F(2, 261) = 8.38$, $p < .001$, and language, $F(1, 261) = 35.66$, $p < .001$, had significant impacts. Tukey HSD tests revealed significant differences between STORY #4 and #5, $t = .64$, $p < .001$, and #5 and #12, $t = -.56$, $p < .001$. Table 9 provides the mean scores and standard deviations for narrative transportation across the six groups. Consistent with the comprehension results, participants were more engaged when reading stories in their native language and those that relate to familiar situations. This highlights a strong link between narrative transportation and comprehension, emphasizing the role of language and content familiarity in reader engagement.

Self-Other Overlap

A two-way ANOVA explored the effects of story content and language on participants' self-other overlap. Results showed a marginally significant interaction between story content and language,

Table 10
Means and SDs in Self-Other Overlapping for the Three Stories

		#4		#5		#12
English	*M*	5.20	*M*	4.69	*M*	4.51
	SD	*1.69*	*SD*	*1.40*	*SD*	*1.48*
Japanese	*M*	5.06	*M*	4.99	*M*	5.40
	SD	1.64	*SD*	1.47	*SD*	1.57

$F(2, 261) = 2.48$, $p = .086$. However, story content on its own had no significant effect, $F(2, 261) = 0.81$, $p = .446$, while language showed only a marginal effect, $F(1, 261) = 3.31$, $p = .070$. Table 10 presents the mean scores and standard deviations for self-other overlap across the six groups. Although narratives often promote empathic connections and overlap, neither story content nor language significantly impacted the psychological distance between readers and the story's protagonist. These findings do not support the hypothesis posed, indicating that the effects of narrative content and language on self-other overlap may be less substantial than predicted.

Empathic Reactions

Table 11 displays the percentages of empathic descriptions across the six groups. The Kruskal-Wallis Test revealed significant differences in the subcategories of emotion, $H = 27.36$, $p < .001$, self-reflection, $H = 14.80$, $p = .011$, and perspective taking, $H = 23.25$, $p < .001$. Dunn-Bonferroni test for pairwise comparisons revealed significant median differences in emotional responses across story contents and languages. Participants who read Story 4 reported significantly more emotional descriptions than those who read Story #5 ($p < .05$), and those who read story #12 reported more than those who read Story #5 ($p < .01$). Within the emotion subcategories, parallel responses (i.e., where participants report the same/similar feelings as the protagonist in the story) were more frequent in Story #4 (62.2%) than in Story #5 (31.3%). Emotion inference was also more common in the Japanese version of Story #4 (17.3%) than in the English version (2.2%).

For self-reflection, total percentages were higher in story #4 (73.3%) than in story #5 (39.6%) in the English condition. Furthermore, in Story #5, participants showed more self-reflection in the Japanese version (73.0%) than in the English version (39.6%). This was particularly evident in reflections about specific past learning experiences, which occurred more frequently in Japanese versions (10.8%) than in English versions (4.2%).

Perspective taking also showed significant differences across groups. The Japanese version of Story #5 (24.3%) resulted in significantly more perspective-taking responses than the English version (6.3%), the Japanese version of Story #4 (3.8%), and the Japanese version of Story #12 (0.0%).

Stories with rich emotional descriptions and relatable situations tended to elicit stronger empathic responses and deeper self-reflection. For instance, one participant stated, "What Gervase was thinking and doing was exactly what I usually experience when facing an assignment – I felt like I was watching myself struggle." The Japanese version of Story #5 encouraged participants to imagine the protagonist's perspective more readily. One reader wrote, "If I were the protagonist, Gervase, and found myself in a situation like the one depicted in the story, I would likely be constantly whining and making excuses for my inability to act."

Table 11
Percentages of Empathic Description in six Groups and the Results of Pairwise Multiple Comparison

Subcategory/Further subcategory	#4E	#4J	#5E	#5J	#12E	#12J
1. Emotion (total)	64.4	71.2	31.3	45.9	73.0	70.8
a. parallel response	62.2	59.6	31.3	40.5	62.2	60.4
b. reactive response	4.4	7.7	0.0	0.0	0.0	10.4
c. emotion inference	2.2	17.3	2.1	10.8	27.0	18.8
2. Self-reflection (total)	73.3	55.8	39.6	73.0	56.8	54.2
a. About past study experience in general situations	55.6	40.4	31.3	64.9	37.8	31.3
b. About past study experience in specific situations	17.8	13.5	4.2	10.8	10.8	20.8
3. Perspective Taking	6.7	3.8	6.3	24.3	2.7	0.0
4. Protagonist (total)	51.1	76.9	33.3	59.5	59.5	58.3
a. Positive reaction	35.6	38.5	18.8	37.8	32.4	14.6
b. Negative reaction	15.6	32.7	6.3	27.0	27.0	29.2
c. Neutral reaction	17.8	25.0	25.0	13.5	18.9	29.2
5. Lesson (total)	53.3	42.3	37.5	45.9	32.4	20.8
a. From a protagonist	15.6	13.5	6.3	13.5	0.0	4.2
b. From advice for a protagonist	28.9	23.1	14.6	13.5	13.5	12.5
c. From the whole story	11.1	13.5	16.7	24.3	18.9	6.3

Note: *$p < .05$, ** $p < .01$

No significant differences were observed in the Lesson category (i.e., what participants learned from Gervase, Navel, or the story as a whole). However, the highest percentages of lesson-related comments were found in Story #4 (53.3%) and Story #5 in Japanese (45.9%).

Discussion

The present study assessed the adaptation of SRL stories (Rosário et al., 2006) from a European to an Asian context and their impact on SRL of Asian FLLs. It was found that narratives featuring familiar situations and relatable protagonists were comprehensible and evoked empathy, even among English speakers. This suggests the potential of such narratives to enhance SRL and English language skills among Asian FLLs.

Language and Content Dynamics in Narrative Comprehension

The study's first research question inquired about the impact of language and story content on comprehension. Significant main effects were found for both variables. Participants comprehended stories better in Japanese, highlighting the challenges posed by English narratives for FLLs. To address such challenges, strategies

such as pre-reading activities and thematic discussions have been identified as effective in previous research for improving comprehension in L2 contexts (e.g., Perfetti & Stafura, 2014).

Narratives with dialogue and relatable scenarios, like Stories #4 and #12, were better understood than those with more abstract themes, such as Story #5's exploration of memory functions. The engagement and empathy associated with these stories likely contributed to higher narrative transportation and enhanced comprehension regardless of language.

The findings suggest that integrating contextual learning activities and emotional connections into language education can improve comprehension and language skills (Li & Clariana, 2019). Adapting instructional methods to learners' linguistic and cultural backgrounds may further optimize learning outcomes. Future research should explore strategies to overcome comprehension barriers and enhance narrative engagement.

Language Discrepancies and Cognitive Engagement Through Narrative Transportation

Regarding the second research question, which inquired about narrative transportation, we found that reading stories in Japanese resulted in higher immersion than reading in English, particularly when emotionally rich descriptions were present. Li and Clariana (2019) noted that reading involves multiple cognitive processes within an interactive system that uses limited resources such as attention, memory, and control. Liu and Cao (2016) found that L2 processing is more demanding, involving additional cognitive domains compared to L1, which significantly affected narrative transportation for participants in their study, as was likely to have also occurred in the present study.

The higher narrative transportation in Stories #4 and #12, compared to Story #5, was likely due to their narrative style, while Story #5's expository nature can be less engaging (see, e.g., Eason et al., 2012). To overcome such challenges, teachers can enhance engagement by prompting students with questions like, "Have you encountered a similar situation to the protagonist?", which can help students relate their experiences to the storyline.

Narrative Influence on Self-Other Overlap and Priming Effects in Reader Perception

To address the third research question, participants were asked to assess their self-other overlap with Gervase, the protagonist, reflecting similarity in mental representations (Davis et al., 1996). Results showed about 40–50% overlap, indicating that the narrative helped readers connect with Gervase. This connection suggests the narrative's contrasting elements may activate prime-to-behavior effects, where primed constructs influence observable behavior (Wheeler et al., 2014). For instance, Story #4 illustrates Gervase's transition from procrastination to proactive behavior, encouraging readers to relate to similar growth. Responses to "How do you think Gervase feels and thinks at the moment in the letter?" revealed readers' varying relatability levels. As prime-to-behavior effects vary among individuals and are influenced by personal differences (Wheeler & Berger, 2007), future research should explore individual factors that can affect reader-character connections and prime-to-behavior effects.

Narrative and Language Impact on Reader Inferences About Protagonists' Emotions

Readers are more likely to infer a protagonist's emotional state when narratives progress chronologically through familiar, concrete situations. For example, responses to "How do you think Gervase feels and thinks at the moment in the letter?" indicate that Story #12 in English prompted more inferences about the protagonist's emotions than Story #5. This difference may result from Story #12's depiction of Gervase's emotional shifts and student circumstances around a familiar situation (de Vega et al., 1996). Emotional changes and interactions in the story may have helped readers adjust their pace, improving comprehension of Gervase's feelings.

Significant variations in empathic reactions were observed exclusively among readers engaging with English-language stories, not the Japanese ones. This suggests that for FLLs, processing narratives in English may impose higher cognitive demands, leading readers to focus on understanding the protagonist's emotions to aid comprehension. Stories like #4 and #12, which follow a narrative style, may facilitate an emotional connection more effectively than Story #5, following an expository style, and improve comprehension in a foreign language context. The data showed that the Japanese version of Story #5 resulted in the highest percentage of perspective-taking responses. This suggests that reading in one's native language may reduce cognitive load, allowing readers to focus more deeply on the protagonist's perspective. Greater language familiarity may help learners simulate characters' thoughts and intentions with more nuance, supporting perspective-taking even in less emotionally vivid stories such as Story #5.

Impact of Language and Emotional Narratives on Reader Reflection

Reflections on past experiences reveal that stories emphasizing the protagonist's emotions and familiar situations elicit more self-reflective comments than expository narratives. This was evident in Stories #4 and #12, both featuring emotional descriptions, although the latter addressed less common test anxiety scenarios. Participants related more readily to Story #4's depiction of procrastination, a common daily occurrence. Stories about routine learning situations offered rich material for self-reflection, particularly when participants read them in English.

Furthermore, the ability to infer others' mental states, termed social perspective taking (SPT), plays a crucial role in understanding characters' motivations and emotions (Menna & Cohen, 1997). Participants' reflections on Gervase's thoughts and feelings suggest their use of SPT, informed by personal interactions and past experiences (Gehlbach et al., 2023). This cognitive process likely differed between reading in Japanese and English, where grasping nuanced emotions and perspectives can be more challenging for FLLs.

While no significant differences were found in the Lesson category, more participants reported lesson-related reflections after reading Story #4 and the Japanese version of Story #5. These stories presented emotionally engaging yet familiar learning situations, which may have prompted readers to connect the story's themes to their own learning behaviors and take away practical insights.

These findings highlight the role of narrative style and language in eliciting empathic responses and fostering deeper self-reflection among readers, influenced by their cultural and linguistic backgrounds.

Conclusion, Limitations, Future Directions, and Practical Implications

This study investigated the impact of narrative content and language influence on comprehension, engagement, and empathic reactions of FLLs when reading SRL stories adapted from Rosário et al. (2006). The findings, although preliminary and in need of further confirmation, suggest that stories depicting relatable situations, particularly those related to academic procrastination and exam/test stress, lead to higher levels of comprehension, emotional engagement, and self-reflection. Readers comprehended stories more effectively in their native language, but emotionally rich English narratives also facilitated meaningful engagement, suggesting that SRL stories can support both language development and metacognitive awareness.

Narratives with concrete, emotionally charged scenarios (e.g., Stories #4 and #12) consistently elicited higher levels of narrative transportation and empathy than more abstract, expository stories such as Story #5. While comprehension and transportation were significantly affected by both story content and language, self-other overlap was only marginally influenced, indicating that empathic identification with characters may require more than accessible language or familiar themes alone.

In terms of empathic reactions, the Japanese version of Story #5 elicited the highest levels of perspective-taking, while emotional descriptions and self-reflective responses were more frequent in Stories #4 and #12. These results suggest that both language accessibility and narrative familiarity shape how learners emotionally engage with SRL content. Although no significant differences were found in lesson-related comments, Story #4 and the Japanese version of Story #5 produced the highest proportions of such reflections, indicating a possible link between narrative resonance and perceived relevance to one's own learning experience.

Despite these contributions, the study has limitations. The sample included learners with similar English proficiency levels, which limits our ability to examine how differences in language proficiency might influence comprehension, engagement, and empathic responses. Future research should include participants with a broader range of English skills to better understand how proficiency level affects the impact of SRL narratives. Additionally, individual learner variables, such as prior experience with SRL, personal interest, or reading habits, were not examined but may significantly influence narrative engagement and interpretation. Future research should incorporate a broader range of participant profiles and explore how individual differences mediate the cognitive and emotional impact of SRL narratives.

In sum, these findings support the pedagogical potential of SRL stories in both first and foreign language contexts. Faculty, particularly those teaching Engligh foreign language, may wish to consider using this or similar narratives embedding SRL skills to enhance their students' English proficiency. Carefully designed narratives that reflect learners' everyday challenges can foster emotional engagement, encourage reflection on personal learning habits, and potentially support the development of SRL strategies in diverse educational settings. Enhancing students' narrative experiences can be beneficial as they navigate lifelong learning challenges.

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