REVIEW ARTICLE

The Canon of Picture Books Utilisation for Adult Foreign Language Learning: Methods and Principles Review

Leow Min Hui[1] and Anis Shaari[2]*

[1]Academy of Language Studies, Universiti Teknologi MARA Cawangan Pulau Pinang, 13500 Permatang Pauh, Pulau Pinang, Malaysia.
[2]Pusat Pengajian Ilmu Pendidikan, Universiti Sains Malaysia, 11800 Pulau Pinang, Malaysia.

ABSTRACT - Recent research suggested authentic picture books as an alternative to the conventional bottom-up adult foreign language teaching and learning approach. This paper distinguishes between: (1) trend of methods and its methodological contexts; (2) principles for picture book utilisation; and (3) theoretical interrelationships between methods and principles. This paper offers a review of empirical studies, indexed by the Scopus, Web of Science, JSTOR Archive, Education Research Complete@EBSCOhost, EBSCO Discovery Service, and ProQuest databases between 2014-2024. After filtered through PRISMA 2020, this paper yielded 7 empirical studies on effective methods and principles for picture books utilisation in adult foreign language classrooms. The review demonstrated the trend of methods based on the advancement of existing contexts and their predictive efficacy. Common principles that scattered within and between those methods were identified and analysed, with consideration of ways in which the implied theories may be advanced by future research; indicating that a "consensus" approach of theoretical interrelationships between methods and principles could be beneficial. Eventually, this study mapped the theoretical interrelationships of picture books' methods and principles for future utilisation and development. The theoretical interrelationships could serve as a reference for innovative foreign language learning planning for instructors or instructional designers, with the initiative of using picture books in the aforementioned context. The findings of this study could also be benefitted by other researchers to build upon their research studies, particularly when applying it to the studies that encompass a wider range of approaches.

1.0   INTRODUCTION

Since the 19th century, illustrated storybooks had been introduced, prior to the development of picture books. Illustrated stories place more emphasis on the "stories" than the "illustration"; even though the pictures amplify the words, the story may still be comprehended without them. In other words, the words themselves may stimulate imagination that the pictures do not provide much or detailed information. In the late 19th century period, Randolph Caldecott (1846-1866), an exceptional illustrator, received the first credit for creating the modern picture book. Sendak's (1988) essay in Caldecott & Co. elaborated that "Caldecott's work heralds the beginning of the modern picture book…Words are left out—but the picture says it. Pictures are left out—but the word says it. In short, it is the invention of the picture book" (pp. 21-25). Picture books started to acquire popularity when Frederic G. Melcher established the Caldecott Medal in 1937 to reward the illustrator of the most notable picture book for children as potential audiences. Thereby, modern picture books have gradually grown in popularity since the late 19th and early 20th centuries due to advancements in printing technology and reformation in childhood education.

Inferring that visual comprehension comes before linguistic comprehension, children's comprehension of literature places a greater emphasis on concrete learning concepts that drive knowledge transformation across contexts (Piaget, 1947). Practically, picture books are the type of literature that is mostly targeted towards children. The term "picture books" refers to books with illustrations, in which the illustrations take prominence over the words or the words are significantly interacted with the illustrations. Picture books are notable for conveying their meaning primarily through a series of images, with minimal or no text (wordless). According to Norton and Norton (2010), illustrations enhance readers' cognitive function by enabling them to construct their own dialogue for the story and generate opinion on their own to express themselves through oral or written language. Even when not in the context of picture books, the interaction between illustrations and words has been proven to have a positive effect on language acquisition (Tan et al., 2022).

Thus, picture books support language literacy in numerous ways, primarily targeting the first language readers. For instance, picture books help to improve learners' language comprehension, narrative capability, and social skills development through interactive reading activities (Tang, 2021). They, too, encourage active reading (Oktarina et al., 2020) and creative writing (Britiviliani & Rahmawati, 2018). The dialogic reading or listening to a story with accompanying illustrations as appeared in picture books may develop learners' vocabulary knowledge, increase their enthusiasm to use the language in everyday situations, and to learn about the culture of a particular language (Ratminingsih & Budasi, 2018). Alongside the traditional applications of picture books, modern picture

books have been digitalised in order to better meet today's technologically advanced educational demands. From the perspective of language literacy development, the digitalised picture books similarly benefit learners' language comprehension, reading and listening abilities, and vocabulary expression (Bus & Anstadt, 2021; Zhou et al., 2021).

There have long been initiatives that use picture books to teach foreign languages instead of the native language. In precise, one of the best-known picture books written by Eric Carle, "The Very Hungry Caterpillar", published in 1969, has been translated into more than sixty different languages, which is easy for native speakers to read, and helps non-native speakers to learn and comprehend a new language from basic. Moeller and Meyer (1995) proposed all subject content areas be incorporated into foreign language learning process through a technique called "webbing". Using the "The Very Hungry Caterpillar" as an example, they explained the rationale of using the "web" to plan, conduct, and meet the foreign language learning goals; it was established that picture books can be used to personalise instruction, stimulate prior knowledge, and eventually attain desired language functions. Previous studies have demonstrated the benefits of using picture books that are compatible with textbooks or syllabi when teaching languages like English (Chen, 2019; Faizahani Ab Rahman & Chiu, 2022; Wang, 2019), Mandarin (Loh, 2016), and Norwegian (Tunkiel & Bus, 2022), as foreign languages. An increasing number of research investigations incorporated picture books with technology (Gu et al., 2022), which has once again demonstrated the potential for picture books to grow further in the context of today's technologically sophisticated educational environment.

Some people may think that picture books must be simple, yet they are actually complicated. The illustrations have a sense of style, point of view, and judgement regarding specifics; these considerations inherently have multidisciplinary repercussions. Picture books are therefore thought to have attributes that support adult education for a variety of purposes. Current teaching methods for adult learners lack engaging materials that support vocabulary retention. Picture books offer learners comprehensible linguistic input in less demanding learning circumstances. This is because visual inputs can better enhance learners' language memory due to their desire to learn spontaneously from appealing materials (Philominraj et al., 2021). Huang (2022) indicated that adult learners no longer learn a new language just out of interest in the language, but rather learn the language to acquire a job as a communication tool. According to Lee (2015), picture books can support learners' authentic and socio-cultural constructivist comprehension as if learners connect their life experience and prior cultural knowledge to the texts or stories. As a result, learners may create new interpretations of the texts that fosters critical thinking and immediate knowledge applications of knowledge which is one of the important andragogy principles emphasised by Knowles' adult education (1984).

1.1 Adults' Cognition and Foreign Language Learning

Internationally, the average age of adulthood is legally 18 years old (Legal Information Institute, 2020; National Institutes of Health, 2022), in which tertiary level learners are considered as young or emerging adults whose metacognition grows rapidly and whose epistemic cognition gradually increases (Reifman & Grahe, 2016). Piaget (1972) named it as "formal operational" cognition development stage. According to Riegel (1975, 1976), it is most probable that age has no bearing on one's cognitive functioning and only manifests as a result of the influences of one's upbringing, background, socio-culture, education attainment, or intelligence level. Adults continue to develop their cognitive abilities over time, becoming more sophisticated and able to process more information. On that note, Tezcan's (2022) study proposed that instructors or decision-makers treat today's young adults as mature individuals by offering learning programs based on adults' learning characteristics. In other words, andragogy - the learning method designed specifically for adult learners, must be taken into account in the adult learning environment or education programs.

In relation with this, adults' brain mechanisms for learning are different from those of children. From the view of socio-cultural constructivism, adult learners often draw on their past experiences and cultural background to interpret texts (Goodman, 1981). Their distinctive schematic backgrounds lead to varying text interpretations. Knowles (1984) outlined five underlying assumptions for the andragogy theory of adult learning: (1) self-concept - since adult learners are typically self-directed and have control over their learning process and content, their personal beliefs about who they are is typically stronger than those of children; (2) prior knowledge/experience - adults learn from a wide range of experiences and therefore they typically concentrate on incorporating new knowledge into what they already know; (3) readiness to learn - adults have reached a stage that they understand the value of learning something and willing to put in the effort to accomplish it; (4) practical learning – the learning content should relate to their work or personal life, with a focus on problem-solving, logical, and critical thinking; (5) intrinsic motivation – adults are more internally motivated.

For adults, learning a new language involves adapting their already developed word-based cognitive framework to a new language structure. Along with the cognitive component, Deng and Zou (2016) proposed that the behaviourism and interlanguage components are also related to adult foreign language learning. Skinner's (1938) behaviourism theory placed focus on the impact of an external reaction to a particular stimulus; it significantly affects the learning of a foreign language through practice, repetition, and habituation. In addition, the transfer of native language, social environment, teaching strategies, and simplified version of linguistic resources also aid in adult foreign language acquisition under the interlanguage context (Selinker, 1972). Adult learners can acquire a new language easily with the support of cognitive, behaviourism, and interlanguage components due to the maturity of their cognitive structure, better self-control behaviour and faster acquisition rate.

1.2 Rationale for Using Picture Books in Adult Foreign Language Learning

Foreign language learners frequently experience culture shock and find it difficult to use the desired language in daily communication. They might need to begin learning the new language through simple yet engaging reading. Ho (2000) conducted a study on foreign postgraduate students and found that these learners were generally aware of the value of dedicated reading for developing the desired language. Consequently, compared to adult literatures, children's literature successfully increased adult learners' reading confidence because of the shorter text, simpler language, authentic, less abstract ideas, contextualised, as well as predictable story structure

through illustration and repeated language patterns. Furthermore, a broad variety of stories are available in picture books, which allow further discussion to take place. The stories in picture books are also intrinsically meaningful and contextually comprehensive. They offer a reliable supply of understandable input in the desired language. Picture books thus provide realistic fiction and actual-life scenarios that may relate to the experiences of adults, particularly in terms of social, economic, historical, and cultural issues. In other words, picture books provide interdisciplinary sources that are deemed suitable for adults to learn the foreign language.

The use of picture books in adult foreign language acquisition is justified by Malu (2013) when picture books often include theory and practice in foreign language acquisition, social learning theory, content and theme-based instruction, and contemporary literacy. On the same note, Yughandhar (2016) and Wesche (2012) highlighted that content and theme-based instruction is a prominent model for foreign language teaching and learning. There are many picture books available for any content or theme that learners wish to explore, which encourages them to learn more than just language. In the contexts of active practice and social engagement, Kochiyama's (2015) study proposed that picture books can surely offer beneficial possibilities for interactions and language-rich experience for adult foreign language learners. Even in the contemporary education context, picture books can assist instructors in introducing and incorporating the skills of viewing and representing (Malu, 2013); in circumstances where the digital learning are available, instructors can use picture books for foreign language comprehension and interaction (Gu et al., 2022). With the growing demand for effective adult education resources, this research fills a critical gap.

1.3   Rationale and Research Questions

Mourao (2023) recently conducted a scoping review on the use of picture books in foreign language instruction. Relevant topics that have not yet been thoroughly explored at this point were discovered in the scoping review. In relation with the subject matter of this study, Mourao (2023) highlighted while picture books have been recognised, and in some cases utilised effectively in a number of researches, there is no canon that leads to the evident conclusion on how and what keeps picture books work effectively in language classrooms. The term "canon" refers to the standard by which something is valued over others and the reasoning behind why something is significant and worthwhile. Finding the guideline for the most effective use of picture books can help practitioners and educators to select appropriate picture book depending on the context of teaching and learning, learners' learning needs, and learning goals.

Prior reviews on the use of picture books for language learning were particularly concerned with children's education (Dowdall et al., 2020; Véliz, 2022). Even while applying picture books for adult language learning has gained popularity recently, the studies are more scattered when compared to those of younger learners. Thus, it is difficult to define the validity and trustworthiness of the efficacy of using picture books in adult language learning. Due to this, there has not been a comprehensive study on using picture books to teach adults foreign language. This study intends to provide insight into the canon that explains how and what kind of standards that keep picture books useful in adult foreign language classrooms. Meanwhile, it, too, aimed to identify theoretical interrelationships between methods and principles that could serve as a guide for the future development of picture books in adult foreign language learning. This study may support teacher mediation and thoughtful planning to ensure a more inclusive, effective, and enjoyable experience for adult learners to learn a new language. The review was undertaken with the objectives of addressing the following questions:

1. What can be inferred from the literature on the effective methods of utilising picture books for adult foreign language learning?
2. Which principles of picture books utilisation must be considered for adult foreign language learning to be effective?

2.0   METHODOLOGY

This paper provides a review of the methods and principles of effective picture book utilisation for adult foreign language learning over the past ten years. The PRISMA 2020 (Page et al., 2021) guidelines were used to perform this review (see Figure 1). Moreover, this review offers a thematic analysis of the theoretical interrelationships between methods and principles for future development of picture books in the field of adult foreign language learning.

Figure 1

PRISMA 2020 Flowchart
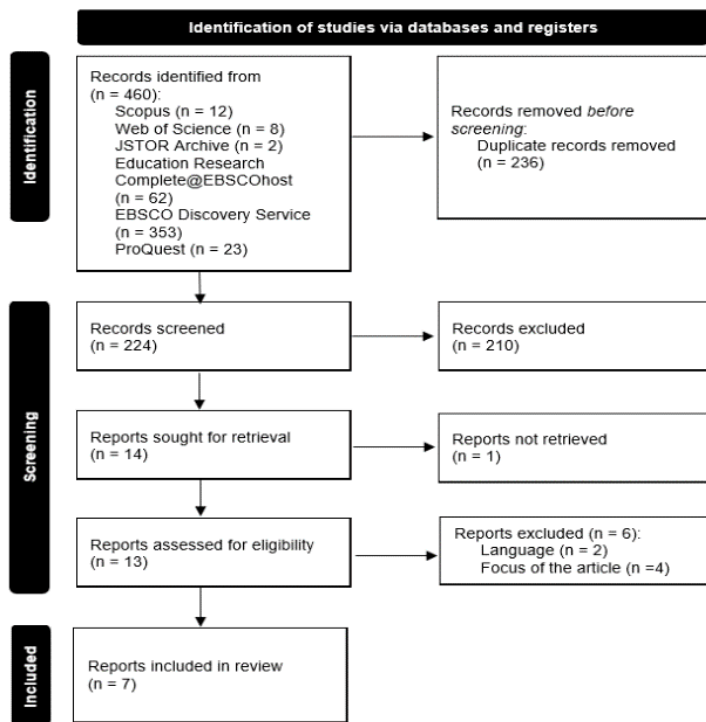
2.1   Data Source and Search Strategies

Six databases were predominantly utilised in this study for electronic search: Scopus, Web of Science, JSTOR Archive, Education Research Complete@EBSCOhost, EBSCO Discovery Service, and ProQuest. Keyword searches consisted of the following terms, which included "OR" within each group of key terms and "AND" between those groups: "picture book" AND "adult" AND "foreign language learning". The search was repeated by replacing the term "foreign language learning" with "second language learning". These keywords were selected according to the research scope and the research questions.

2.2   Eligibly Criteria for Screening

To investigate methods and principles of picture book utilisation, we considered studies published from 2014 to 2024 in peer-reviewed scholarly journals. The inclusion and exclusion criteria employed in the PRISMA 2020 screening procedure are displayed in Table 1.

Table 1

Inclusion and exclusion criteria

Criteria	Inclusion	Exclusion
Publication timeframe	2014-2024 (10 years)	Before 2014 and after 2024
Publication type	Original papers that have been published in scholarly journals	Dissertations, reports, letters, books/book chapters, notes conference proceedings, editorials, reviews, articles in newspaper and magazine
Language	Articles published in English	Articles published in other language than English
Research method	Empirical studies	Non-empirical, theoretical or conceptual studies, and opinion papers
Instructional setting	Adult foreign language learning (beginning at the group age of 18)	Native language learning
		Children or teenagers' foreign language learning
		Special education language learning
Focus of the article	Concrete methods for incorporating picture books (include the use of technology) into adult foreign language acquisition	Methods for incorporating picture books into native language instruction for learner groups other than adults
	Concrete picture book standards of use that adhere to the three adult learning theories of cognitive, behaviourism, and interlanguage	Picture book standards of use that do not adhere to the three adult learning theories of cognitive, behaviourism, and interlanguage
	Studies that demonstrate the effectiveness of using picture books in adult foreign language learning	Studies that do not demonstrate the effectiveness of using picture books in adult foreign language learning

2.3   Study Selection and Screening

The PRISMA 2020 flowchart dictated to conduct two rounds of screening, which are titles, keywords and abstracts screening, as well as full text screening. Data were collected in both rounds using a Microsoft Excel electronic data extraction table. After removing the 235 duplicates from 460 initially identified articles, the articles were numerically coded as "1" if included or "0" if excluded, in accordance with the inclusion and exclusion criteria. The first round of screening revealed that 14 publications fit the requirements for inclusion, but 1 publication could not be retrieved since the full text could not be located. 13 publications were deemed to be eligible, and eventually 7 publications were included in this review after the second phase of screening, which was the full text screening. Before discussing any discrepancies, two researchers conducted independent screenings for the publications. Conflicts were then resolved until complete agreement was attained.

2.4   Data Coding and Analysis

During the initial screening of this review, the researchers developed a codebook based on findings from the included publications. The codebook includes 15 criteria, as justified in Table 2.

Table 2

The criteria of data coding

Criteria	Justification
Year of publication	The publication's year was coded to ensure that it falls within the 2014–2024 publication timeframe
Author	Authors' names were coded only for publications' recognition
Title	Article titles were coded for publications' recognition
Journal	Journal titles were coded for publications' recognition
DOI	Article DOIs were coded to identify the sources' location
Country	Open coding for the origin of sources
Research topic/discipline	Discipline was coded as Chinese, English, and other foreign languages
Target learners	Target learners were coded as young adults (18-35 years old), middle-aged adults (36-55 years old), and older adults (older than 55 years old)
Research methodology	Research methodology was coded as qualitative, quantitative, or mixed-methods
Data collection	Data collection was coded as interview, observation, survey and so on
Participants	The informants of data were coded as participants
Instructional delivery	Instructional delivery was coded as conventional, digital, or blended
Methods for incorporating picture books	Open coding for methods for incorporating picture books based on different discipline's necessities
Principles	The principles found from articles were classified under specific theories according to relevance
Outcomes	Open coding for effective factors of utilising picture books in adult foreign language acquisition

Three iterative coding cycles were performed through the review, coding, discussion, and clarification process to achieve high coding reliability. Two researchers independently coded 15% of the available articles each, resulting in an inter-rater reliability of 93.2%. Using directed content analysis, the research questions were investigated in order to discover the practical method to employing picture books in adult foreign language learning as well as the underlying principles that are consistent with adult learning theories. During the initial coding, the researchers identified the significant categories of variables; after that, thematic analysis was carried out to identify patterns and themes, leading to the suggestion of a framework for picture books' future utilisation and development in the field of adult foreign language learning.

3.0   RESULTS

3.1   General Information of Publications Included in the Review

Time Frame of Publication: All the included publications in this review were published within 2014 to 2024. Of the 7 publications, 1 was published in 2014; 3 were published in 2015; 1 was published in 2017; 1 was published in 2020; and 1 was published in 2022. On average, 1 publication related to the research topic would be released every two years. However, the publication of related field is declining since no relevant publications were found for 2023 and 2024.

Site of Study: 5 out of 7 (71.4%) of the publications included in this review were conducted in Taiwan. Meanwhile, 3 of the publications were written by Sun (2015, 2017, 2020), who appears to be a typical expert and key data contributor in the field of applying

picture books in adult foreign language learning. Another 2 out of 7 publications were originally carried out in Japan. In the past ten years, Taiwan and Japan have seen a rise in research on the use of picture books in adult foreign language acquisition.

Research topic/discipline and target learners: 5 out of 7 (71.4%) of the publications investigated the use of picture books in the teaching of English as a foreign language for adult learners. 1 publication focused on teaching Italian as foreign language and another 1 publication focused on teaching German as foreign language. This study initially anticipated publications that would include an array of adult age groups (young adults, middle-aged adults, and older adults). The research carried out over the previous ten years, however, focused entirely on young adults who were learning a foreign language within the context of using picture books.

Research methodology, data collection, and participants: The publications that were selected in this review comprised a combination of qualitative, quantitative, and mixed-method investigations. At the same time, there was a variety of data collection method applied in the studies, such as survey/questionnaire, content analysis, written feedback, observation, interview, pre- and post-test, and so on. Target learners made up all the informants, who offered first-hand information that enriched the findings of the empirical investigation.

3.2 The Trend of Methods of Utilising Picture Books in Adults' Foreign Language Learning and Its Methodological Contexts

This section discusses how current researchers have used picture books for adult foreign language learning in their studies in order to achieve efficacy in their respective contexts. Furthering from there, the following part of this paper also evaluated the evidence supporting the effectiveness of using picture books in adult foreign language learning, as reported from the publications included in this review. The evaluation proved the predictive efficacy of picture book utilisation on the basis of the methodological advancement of existing contexts. The methods and their effectiveness are presented in Table 3.

Table 3

Effective methods of utilising picture books in adult foreign language learning

References	Instructional delivery	Methods	Evidence of effectiveness
Yomo et al. (2014)	Conventional	**Using picture books that contain high proportion of fundamental words** to help learners recognise and remember basic vocabularies, understand grammar, and expand culture awareness	Other than providing learners' sense of fulfilment and enhancing motivation to learn the foreign language (Italian), picture book was reported to make the learning more interesting; accelerate effective language learning (vocabulary & grammar); and enhance culture awareness among the learners.
Kochiyama (2015)	Conventional	**Authentic picture books serve as an alternative** to EFL textbooks for reading class to enhance remedial EFL learners' motivation to learn English language skills, be sensitive to different cultures, and improve their emotional development. Meanwhile, conduct **picture book reading task for read aloud** by employing oppositional or resistant reading strategies as opposed to dominant and conventional methods.	Using picture book helped in enhancing remedial learners' language learning, motivation to learn English and their emotional development.
Lee (2015)	Conventional	**Using authentic illustrated storybooks** along with a variety of **literacy practices (drawing activity, mini-play, dramatic tableau activity)** to assist beginning or struggling readers. Furthermore, promote **social interaction** and create an inviting setting for debates about topics that are significant in learners' lives.	Picture book allowed pleasure reading, and enhanced learners' confidence and motivation. Besides, learners experienced progress in their English language proficiency. Learners revealed favourable attitudes toward the selected readings, demonstrated multiple interpretations of the texts, as well as considered children's literature a helpful learning device for building one's English competence. They, too, enjoyed activities that encouraged peer collaboration and artistic responses.

Table 3 (cont.)

| References	Instructional delivery	Methods	Evidence of effectiveness
Sun (2015)	Conventional	**Authentic picture book method** consists of three stages: **Theme-based discussion** for building learners' knowledge related to the topic. **Individual/silent** picture book reading. **Literacy activity** that involves small-group discussion and preparation of a presentation.	Facilitated four dimensions of student engagements in learning the language: 1) Affective: Interest & enjoyment in reading; Delights of activities (as students cycled through predicting, reading, confirming, integrating, and further predicting the plot). 2) Behavioural: Immersed in story; being on task during activities. 3) Spontaneous social engagement: Learners shared their thoughts and joy with group members. 4) Cognitive: Infer word meanings; deep thinking; desire to go beyond the requirements; make inferences that enriched and deepened learners' experience with the text and illustrations.
Sun (2017)	Conventional	Enhance learners' vocabulary acquisition and retention through three methods: Picture-book **reading-only** (PRO) Picture-book reading plus **vocabulary instruction** (PRVI) Picture-book reading plus **reading-based collaborative output activity** (PRCOA)	PRVI mode was the most helpful for immediate word learning. However, the PRCOA mode was the most effective for word retention, and most conducive to bettering students' productive knowledge in both acquisition and retention.
Sun (2020)	Conventional	Applying **interactive read-alouds** with picture books (turn-and-talk process of collaborating with a partner to unpack the meanings of unfamiliar words) on older emerging English learners' word inference ability in order to ensure the pleasure of reading and promote vocabulary and comprehension skill.	Significant progress was seen in learners' ability to use prior knowledge and context to infer the meanings of unknown words. Besides, the read-alouds were claimed to be enjoyable and valuable that they increased learners' understanding of the word inference strategy; encouraged them to use the strategy, enhanced their ability to use it, and fostered their interest and built their confidence in reading. Learners also appreciated the togetherness in learning as promoted in the activity.
Gu et al. (2022)	Blended (digital + conventional	Using augmented reality (AR) picture books to present text in an interactive way (add **interactive** virtual objects in the context of a lively content); at the same time through innovative interactive design, incorporate listening and speaking into German instruction with AR sound function.	Augmented reality (AR) picture books in German instruction (for foreign language learning) can help students obtain a higher learning interest, continuous learning intentions, and better learning outcomes.

To look into the canon that leads to the evident conclusion on how and what keeps picture books work effectively in the adult foreign language classrooms, according to previous studies, picture books often serve as an alternative to traditional textbooks as they are highly related to the learning curricula and contain a significant amount of fundamental knowledge that is appropriate for learners' language level. Therefore, it is imperative to make sure that the picture books selected represent those that are widely available in the market, at school, or online (Kochiyama. 2015; Lee, 2015; Yomo et al., 2014). Besides, the "authentic" feature of picture books was being emphasised, demonstrating the value of "real", "genuine", "meaningful" and "real-life related" books in assisting adult language learners in acquiring a foreign language. There are some trending methods widely applied in the context. First, it inclines towards literacy practices such as read-aloud, drawing activity, mini-play, and dramatic tableau activity. To elaborate further, the way individuals

use active meaning-making strategy to interact with texts and the meanings they attach to, and realise how these connect to personal identity, community membership, interpersonal connections, political manoeuvres, and religious practices are all part of what is known as literacy practices (Lycke et al., 2018). Literacy practices are usually influenced by technology and socio-cultural variables. Apropos of this, the second trending method of utilising picture books in adult foreign language learning was the collaborative/interactive activities that promote social interaction among peers such as group discussion and presentation. Furthermore, the use of picture books also went digital, a technological development that came about to fulfil the demands of modern education during the 21st century. This situation elevates interactive practices to a new level. Overall, there were no significant differences in how picture books were used in acquiring different foreign languages including German, English and Italian.

According to the methods as listed in Table 3, the trend of methods of utilising picture books in adult foreign language learning could be synthesised into three facets: (1) literacy practices; (2) collaborative/interactive-based activities, and (3) technology-integrated usage. In precise, those methods were implied in specific contexts: main context and emerging context. Main context refers to the methods that were suitably applied when the selected picture books were significantly alternative to conventional curricula, authentic, and highly available; while emerging context represents the digitalised circumstance in educational practices (see Figure 2).

Figure 2

Main context and emerging context
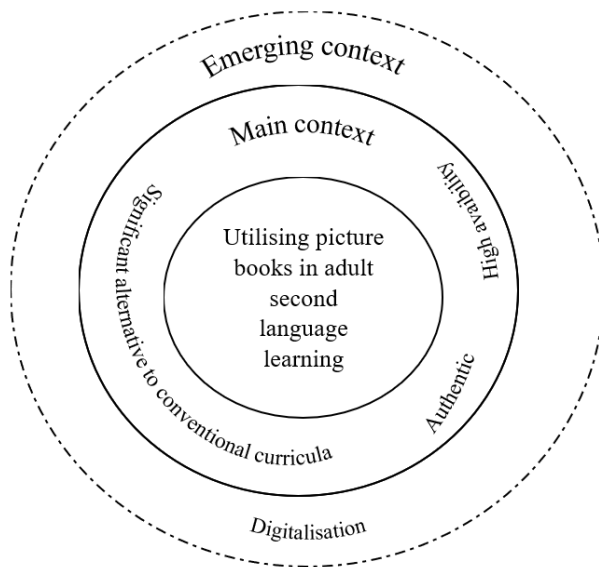
3.3   Principles of Picture Books Utilisation in Adult Foreign Language Learning and Its Implied Theories

Within the main context and emerging context (as shown in Figure 2), the trend of methods (literacy practices, collaborative/interactive-based activities, technology-integrated usage) came along with a list of common principles scattered within and between those methods. Theoretically, some significant theories were implied within the principles and played a crucial role in strengthening the canon that keeps picture books methods' utilisation worthful in adult foreign language classrooms. The details of principles with specific theoretical categorisations (cognitive, behaviourism, interlanguage) are presented in Table 4.

Table 4

Principles of utilising picture books in adult foreign language learning

Trend of methods	Principles and its implied theories			References
	Cognitive	**Behaviourism**	**Interlanguage**	
Literacy practices	Mature, interesting, creative, sophisticated and critical storyline (readiness to learn) Text-meaning searching/making using context clues in text and illustration or prior knowledge (self-directed learning/ prior knowledge experience)	Learning autonomy Feeling of competence/ fulfilment (intrinsic motivation) Pattern drills and demonstration (repetition & habituation)	Natural language/ language at its finest Simplified edition of picture books Comprehensible/ readability/ suitable length and difficulty level Slightly above learners' current target language level (words	Kochiyama, 2015; Lee, 2015; Yomo et al., 2014; Sun, 2015, 2017, 2020

Trend of methods	Principles and its implied theories			References
	Cognitive	Behaviourism	Interlanguage	
	Preferences and decision-making (self-directed)		Unfamiliarity to at least 99% of the learners)	
	Mediate cultural and language disparities (prior knowledge experience)		Textual-illustrated comprehension to reinforce the meanings of words	
	Familiarity and relevance for culture, life, and interests (prior knowledge experience)		Aural-written input	
	Imagination and predicting for unfamiliar meaning (creative thinking)		Balance between message-focused and strategy-focused (highlight the strategies and promote understanding of text)	
Collaborative/ interactive	Reflective and critical thinking (logical & critical thinking)	Picture book-friendly environment that provoke discussion (open-ended, creative, generative, and collaborative)	Culturally and linguistically authentic for communication	Kochiyama, 2015; Sun, 2015, 2017
	Practical and way of life (practical learning)		Conflict and challenging thinking to promote diverse idea/language negotiations	
	Expressing empathy-infer characters' feelings and motives (practical learning)	Human condition: emotional development, interpersonal and intrapersonal attitude		
		Leadership (active, clever & fast learners)		
		Modelling (construct meaning)		
Technology usage	Self-discipline (self-concept)	Satisfaction with games (intrinsic motivation)	Narrative and integrity of language content	Gu et al. (2022)
	Interactive narrative (sensory simulation)	Peer learning as a moderating variable	Comprehensive story	

Notes. All the trending methods and principles were implied within these contexts:

a)   Main context: Significant alternative to conventional curricula; authentic; high availability

b)   Emerging context: Digitalised

As a summary of the methods and principles illustrated in various studies under review, different studies empirically investigated specific methods lied within different methodological trends and even in a variety of contexts. Meanwhile, each trend of methods was supported by a list of principles which did not highlight their relationship across methods. Based on the findings of this study, however, we discovered that the variety of methods and principles actually originated, extended, and developed from the same fundamental theories, so called cognitive, behaviourism, and interlanguage. Furthermore, these three theories are interconnected, it would be inconceivable to separate them in order to obtain a comprehensive canon of effective picture books utilisation for adult foreign language learning. In fact, the intimate relationship between methods, principles, and the implied theories that connect methods and principles as a whole has not yet been explicitly pointed up until today. Most of the recent research even merely focused on either one or two of the fundamental theories, in which the integrity of the theories underlying the scientific investigations was undesignedly overlooked. This study suggests consideration of the theoretical interrelationships between methods and principles in relation to cognitive, behaviourism, and interlanguage theories. This study advances research that could result in more theoretically comprehensive studies in the future.

4.0   DISCUSSION

The theory accordance elaborated above clearly demonstrates that the methods and principles discovered and addressed in this study are braced by substantial theoretical underpinnings tailored specifically for adult foreign language learning context. In line with that, this study maps the theoretical interrelationships of picture books' methods and principles for future utilisation and development in the field of adult foreign language learning (see Figure 3).

Figure 3

Theoretical interrelationships between methods and principles
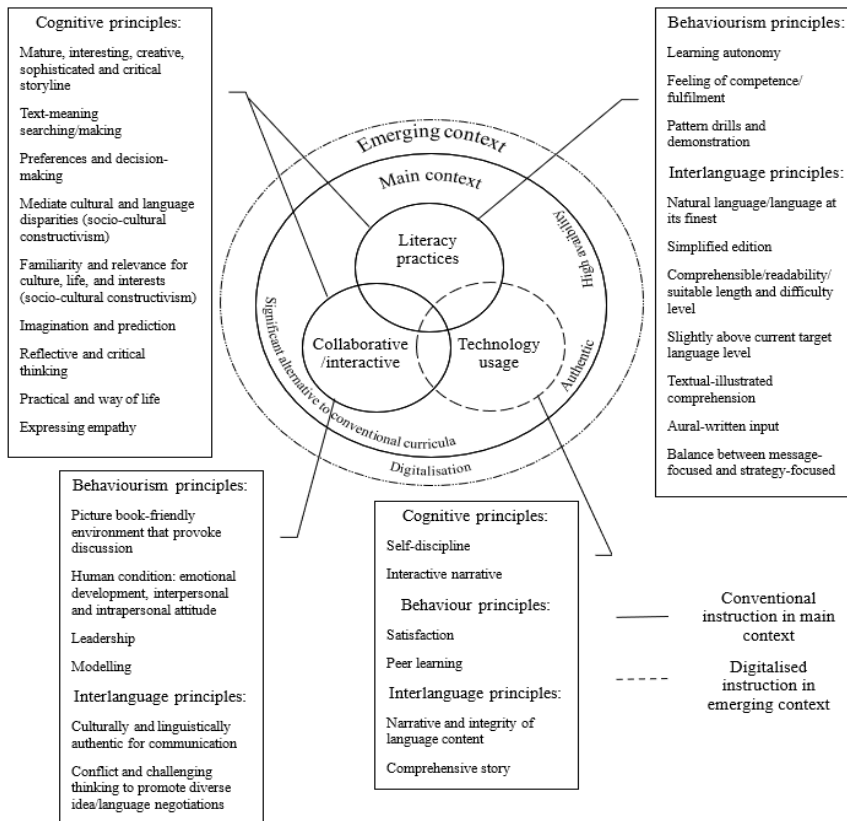
According to Figure 3, there are two types of popular instructions for utilising picture books in adult foreign language learning: conventional (literacy practices, collaborative/interactive) and digitalised (technology usage) instructions. Technology and socio-cultural are two significant variables that influence literacy practices. To elaborate further, literacy practices and collaborative/interactive methods both share cognitive principles, including socio-cultural characteristics, despite the fact that their behaviourism and interlanguage principles diverge; whereas, technology use is in fact founded on literacy practices, which also promotes virtual interaction and collaborative activities. Overall, the literacy practices, collaborative/interactive methods, and their underlying principles are conventionally utilised in the main context; the technology method is incorporated when the emergent context appeared.

Based on Figure 3, the significant theories that bridge the trend of methods and the guiding principles as a whole are cognitive, behaviourism, and interlanguage theories. From the theoretical perspective of Knowles (1984), adult learners are expected to have readiness to learn, learn with a positive self-concept, contain prior knowledge experience, have the ability to practice their knowledge, and have internal drive to learn. In light of this, the cognitive aspect of the methods and principles directing the use of picture books in adult foreign language learning suggested that learners require a mature, interesting, creative, sophisticated and critical storyline to correspond to their readiness and enthusiasm of learning new languages (Kochiyama, 2015; Lee, 2015; Sun, 2017, 2020). Decision-making and constructive text-meaning searching or making using text and illustration clues or prior knowledge protrudes the Knowles' concept of self-directed learning and prior knowledge experience (Sun, 2017, 2020). Among the reviewed publications, Lee (2015) emphasised the importance of socio-cultural constructive theory, which supports Knowle's (1984) and Goodman's (1981) recognition that different people have the capacity to use prior experiences and cultural knowledge to interpret texts in a variety of ways. Learners mediate the culture, life, and language disparities according to their prior knowledge experiences and discover the familiarity and relevance among them (Kochiyama, 2015; Lee, 2015; Sun, 2015). On the basis of prior knowledge, learners are anticipated to reflect the implied meaning of a story, imagine and predict for unfamiliar meanings in the picture books (Kochiyama, 2015; Lee, 2015; Sun, 2015, 2017, 2020), which encourage creative, logical, and critical thinking skills emphasised by Knowle's (1984) andragogy practices. Meanwhile, learners get insight into the practical way of life from the emotions and motivations of the characters, which boosts their interest in reading and internal motivation to learn the target language (Kochiyama, 2015; Lee, 2015). Furthermore, the use of technology in the setting also enhances learners' self-concept and interaction with the texts (Gu et al., 2022).

The principles of using picture books in foreign language learning settings under the umbrella of literacy practices suggested essential attention to learning autonomy, feeling of competence or fulfilment, and pattern drills in order to boost learners' intrinsic learning motivation (Kochiyama, 2015; Sun, 2020; Yomo et al., 2014). This highlights Skinner's (1938) behaviourism theory, which emphasises the impact of an external reaction to particular stimuli. Besides, the principles of the collaborative/interactive method suggested valuable external aspects that should be taken into consideration to promote positive foreign language behaviour through the use of picture books. These aspects include picture book-friendly environment that stimulate discussion that deals with various facets of human condition (emotional development, interpersonal and intrapersonal attitude), nurture leadership, and promote modelling (Kochiyama, 2015; Sun, 2015, 2017). The same applies for the setting of digital learning, the principles demonstrate alignment with Skinner's (1938) behaviourism theory, including feelings of satisfaction and social influences, particularly peer learning (Gu et al., 2022).

When discussing interlanguage pragmatics (Selinker, 1972), foreign language learners acquire, comprehend, and employ linguistic acts in picture book context by considering some specific principles. When applying literacy practices, learners are suggested to transfer language from natural language or using simplified editions of picture book to learn the target language (Kochiyama, 2015; Lee, 2015; Yomo et al., 2014). Despite the fact that the language in the picture books must be comprehensible, readable, or appropriate to learners' language level, it is intended to imply that the difficulty level should be a little higher than the learners' current target language level (Kochiyama, 2015; Lee, 2015; Sun, 2017, 2020). Moreover, textual-illustrated comprehension and aural-written input are encouraged to aid in better language transfer (Kochiyama, 2015; Sun, 2017). Even when integrating technology into the conventional setting for foreign language learning, the instructional materials should be more narrative and comprehensively incorporate story content as opposed to just blending grammar and text (Gu et al., 2022). Hence, it is essential to maintain a balance between message-focused and strategy-focused encounters in order to encourage the improvement of language comprehension skills (Sun, 2020). On the other hand, when applying collaborative/interactive method in teaching foreign language through picture books, the language input should be authentic in terms of both culture and language, allowing for the natural application of some key grammatical elements during conversation (Kochiyama, 2015). Additionally, conflict and challenging thinking that encourages various language concept debates are encouraged to enrich language transfer under meaningful interactions between peers (Sun, 2015).

Although this paper gathered useful data on the canon of effective picture books utilisation in adult foreign language learning, there are some methodological limitations. The potential articles are still limited despite having access to publications from several continents, as the search was limited to English-language articles. For instance, Kim's (2020) and Shin's (2018) studies were notified as potential articles for full-text screening after abstract screening, but they were excluded since the full-texts were written in Korean. Besides, specific criteria were employed for deciding which articles should be included in this review. Consequently, publications that documented adult foreign language acquisition were lesser than those that documented teenage or children second/foreign language acquisition. Publications that relate adult learning with picture books utilisation were significantly less prevalent than for other age groups. The findings even indicated a preference for studying foreign language acquisition in young adults as opposed to middle-aged or older adults. However, these situations allowed this study to highlight the research gaps which encourage potential directions for future research. There is a need for increasing the investigations on a wider range of languages or countries and larger populations. There is also a need to increase the number of research and publications given that the research field is currently receiving little attention.

5.0 CONCLUSION

The main contribution of this study is the highlight of the trending methods and principles of picture books utilisation in adult foreign language learning. The study also identified the theoretical interrelationships between methods and principles that underpin the canon of picture book utilisation in adult foreign language learning. Such early attempts of highlighting the theoretical interrelationship serve as a guide for the future use of picture books, especially in the advancement of adult foreign language learning. This study affirms the canon that leads to the evident conclusion on how and what keeps picture books work effectively in adult language classrooms. Apropos of this, the discussion of theoretical interrelationships could serve as a reference for innovative foreign language learning planning for instructors or instructional designers, with the initiative of using picture books in the aforementioned context.

The findings of this study could also be benefitted by other researchers to build upon their research studies, particularly when applying it to empirical studies that encompass a wider range of approaches or further analyse the interrelated theories' applicability in a certain setting of foreign languages. Early findings of this review showed that there has been just one study-related publication in every two years and none of them published in 2023 and 2024, which is relatively scanty. Therefore, related research is expected to grow in the future.

ACKNOWLEDGEMENTS

CONFLICT OF INTEREST

The authors declare no conflicts of interest.

AUTHOR CONTRIBUTIONS

REFERENCES

Britiviliani, N., & Rahmawati, E. (2018). Use of picture books to expose young learners writing activities. *Loquen: English Studies Journal, 11*(2), 59-69. https://doi.org/10.32678/loquen.v11i02.1033

Bus, A. G., & Anstadt, R. (2021). Toward digital picture books for a new generation of emergent readers. *AERA Open, 7*(1), 1-15. https://doi.org/10.1177/23328584211063874

Chen, J. (2019). Employing English picture books in classroom teaching: Taking a suburban area in mainland China as the study context. *Proceedings of the Asian Conference on Education*, 1-18. https://papers.iafor.org/wp-content/uploads/papers/ace2019/ACE2019_53346.pdf

Deng, F., & Zou, Q. (2016). A study on whether the adults' second language acquisition is easy or not – from the perspective of children's native language acquisition. *Theory and Practice in Language Studies, 6*(4), 776-780. http://dx.doi.org/10.17507/tpls.0604.15

Dowdall, N., Melendez-Torres, G. J., Murray, L., Gardner, F., Hartford, L., & Cooper, P. J. (2020). Shared picture book reading interventions for child language development: A systematic review and meta-analysis. *Child Development, 91*(2), 383-399. https://doi.org/10.1111/cdev.13225

Faizahani Ab Rahman, & Chiu, E. T. S. (2022). Can picture books in English classroom lead to increase vocabulary learning? *International Journal of Education, Psychology and Counselling (IJEPC), 7*(46), 286-301. https://doi.org/10.35631/IJEPC.746023

Goodman, K. (1981). Miscue analysis and future research directions. In S. Hudelston (Ed.), *Linguistics and literacy series 1: Learning to read in different languages* (pp. ix-xii). Centre of Applied Linguistics.

Gu, C., Chen, J., Yang, C., Wei, W., Jiang, Q., Jiang, L., Wu, Q., Lin, S-Y., & Yang, Y. (2022). Effects of AR picture books on German teaching in universities. *Journal of Intelligence, 10*(13), 1-32. https://doi.org/10.3390/jintelligence10010013

Ho, L. (2000). Children's literature in adult education. *Children's Literature in Education, 31*(4), 259-271. http://dx.doi.org/10.1023/A:1026431003032

Huang, J. (2022). Picture books as teaching tool in teaching intermediate Chinese writing as a foreign language. *Contemporary Education and Teaching Research, 3*(2), 36-38. https://doi.org/10.47852/bonviewCETR2022030203

Kim, B. (2020). A study on utilizing picture books for education on writing in Korean language. *The Journal of Humanities and Social Sciences 21, 11*(6), 2203-2212. http://dx.doi.org/10.22143/HSS21.11.6.155

Knowles, M. S. (1984). Andragogy in action. *Applying modern principles of adult education*. Jossey Bass.

Kochiyama, A. (2015). Using picture books to enhance motivation and language learning of remedial EFL students. *Indonesian EFL Journal, 1*(1), 10-16. https://doi.org/10.25134/ieflj.v1i1.608

Lee, H-N. (2015). Using picture books in EFL college reading classrooms. *Reading Matrix: An International Online Journal, 15*(1), 66-77.

Legal Information Institute. (2020, June). *Legal age.* https://www.law.cornell.edu/wex/legal_age

Loh, E. K. Y. (2016). Picture storybooks in teaching Chinese as a second language. *CLCWeb: Comparative Literature and Culture, 18*(2), 1-7. https://doi.org/10.7771/1481-4374.2856

Lycke, K., Hurd, E., & Husband, T. (2018). Rural teachers' literacy practices in and out of the classroom: Exploring teacher characteristics and literacy tools. *The Rural Educator, 36*(3), 1-27. https://doi.org/10.35608/ruraled.v36i3.303

Malu, K. F. (2013). Exploring children's picture storybooks with adult and adolescent EFL learners. *English Teaching Forum, 51*(3), 10-18.

Moeller, A. K., & Meyer, R. J. (1995). Children's books in the foreign language classroom: Acquiring natural language in familiar contexts. In G. K. Crouse, P. J. Campana & M. H. Rosenbusch (Eds.), *Broadening the frontiers of foreign language education: Selected papers from the 1995 central states conference* (pp.33-45). National Textbook Company.

Mourao, S. (2023). Picturebooks for intercultural learning in foreign language education. A scoping review. *Zeitschrift für Interkulturellen Fremdsprachenunterricht, 28*(1), 173-209. https://doi.org/10.48694/zif.3620

National Institutes of Health. (2022, September 2). *Age.* https://www.nih.gov/nih-style-guide/age#:~:text=Adolescents%20(13%20years%20through%2017,adults%20(65%20and%20older)*

Norton, D., & Norton, S. (2010). Through the eyes of a child: An introduction to children's literature (8th ed.). Prentice-Hall.

Oktarina, P. S., Hari, N. P. L. S., & Ambarwati, N. M. W. (2020). The effectiveness of using picture book to motivate students especially young learners in reading. *Journal of English Language Education, 3*(1), 72-79. https://doi.org/10.25078/yb.v1i1.1379

Page, M., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., Brennan, S. E., Chou, R., Glanville, J., Grimshaw, J. M., Hrobjartsson, A., Lalu, M. M., Li, T., Loder, E. W., Mayo-Wilson, E. … Moher, D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews, *BMJ, 372*(71), 1-9. https://dx.doi.org/10.1136/bmj.n71

Philominraj, A., Ranjan, R., Saavedra, R. A., & Kumar, G. (2021). Use of language learning strategies by Indian learners of Spanish as a foreign language. *Pertanika Journal of Social Science and Humanities, 29*(2), 955-976. https://doi.org/10.47836/pjssh.29.2.12

Piaget, J. (1947). *The psychology of intelligence.* Taylor and Francis.

Piaget, J. (1972). Intellectual evolution from adolescence to adulthood. *Human Development, 15*(1), 1–12. https://doi.org/10.1159/000271225

Ratminingsih, N. M., & Budasi, I. G. (2018). Local culture-based picture storybooks for teaching English for young learners. *Proceedings of the SHS Web of Conferences, 42*, 00016. https://doi.org/10.1051/shsconf/20184200016

Reifman, A., & Grahe, J. E. (2016). Introduction to the special issue of emerging adulthood. *Emerging Adulthood, 4*(3), 135–141. https://doi.org/10.1177/2167696815588022

Riegel, K. F. (1975). Toward a dialectical theory of development. *Human development, 18*(1-2), 50-64. https://doi.org/10.1159/000271475

Riegel, K. F. (1976). The dialectics of human development. *American psychologist, 31*(10) 689-700. https://psycnet.apa.org/doi/10.1037/0003-066X.31.10.689

Selinker, L. (1972). Interlanguage. *International Review of Applied Linguistics in Language Teaching*, *10*(1-4), 209-232. https://doi.org/10.1515/iral.1972.10.1-4.209

Sendak, M. (1988). Randolph Caldecott. In M. Sendak (Ed.), *Caldecott & Co.: Notes on Books and Pictures* (pp. 21-25). Noonday Press.

Shin, J. (2018). An utilization plan of a picture book in Korean education. *Korean Language & Literature, 106,* 269-306. https://doi.org/10.21793/koreall.2018.106.269

Skinner, B. F. (1938). The behavior of organisms: An experimental analysis. Appleton-Century.

Sun, C. (2015). The three little wolves go to college: A picture book lesson for young adult EFL learners. *Journal of Adolescent and Adult Literacy, 59*(2), 183-195. https://doi.org/10.1002/jaal.434

Sun, C. (2017). The value of picture-book reading-based collaborative output activities for vocabulary retention. *Language Teaching Research, 21*(1), 96-117. https://doi.org/10.1177/1362168816655364

Sun, C. (2020). Interactive picture book read-alouds to the rescue: Developing emerging college EFL learners' word inference ability. *Journal of Adolescent and Adult Literacy, 63*(1), 1-9. http://dx.doi.org/10.1002/jaal.1010

Tang, L. (2021). The significance of applying wordless picture book in teaching Chinese children: A wordless picture book reading teaching practice. *Proceedings of the 2021 International Conference on Education, Language and Art 637,* 422-426. https://doi.org/10.2991/assehr.k.220131.076

Tan, S., Arshad Abd Samad, & Lilliati Ismail (2022). The effects of visual input and text types on the listening comprehension of EFL students in China. *Pertanika Journal of Social Science and Humanities, 30*(S1), 63-79. https://doi.org/10.47836/pjssh.30.S1.04

Tezcan, F. (2022). Andragogy or pedagogy: Views of young adults on the learning environment. *International Education Studies, 15*(1), 136-147. https://doi.org/10.5539/ies.v15n1p136

Tunkiel, K. A., & Bus, A. G. (2022). Digital picture books for young dual language learners: Effects of reading in the second language. *Frontiers in Education, 7*, 1-13. https://doi.org/10.3389/feduc.2022.901060

Véliz, S. (2022). Radical picture books in educational settings: A systematic revision of aims, competences, and the relations between mediators and readers. *Medellín, 27*(1), 199-223. https://doi.org/10.17533/udea.ikala.v27n1a10

Wang, P. (2019). *Using picture books to improve the English reading ability of Chinese elementary school students* [Master's thesis, University of Wisconsin-Platteville, United States]. University of Wisconsin Repository. https://minds.wisconsin.edu/bitstream/handle/1793/79312/Wang,%20Pei.pdf?sequence=1

Wesche, M. B. (2012). Content-based second language instruction. In R. B. Kaplan (Ed.), *The Oxford handbook of applied linguistics (2nd ed.)* (pp.275-293). Oxford University Press. https://doi.org/10.1093/oxfordhb/9780195384253.001.0001

Yomo, M., Uni, K., Moore, D., & Kiyose, T. (2014). Effectiveness of picture books for Italian instruction at Japanese universities. *Language Learning in Higher Education, 4*(2), 321-341. https://doi.org/https://doi.org/10.1515/cercles-2014-0018

Yughandhar, K. (2016). Content-theme-based instruction to increase the quality of EFL class. *International Journal on Studies in English Language and Literature (IJSELL), 4*(8), 86-90. http://dx.doi.org/10.20431/2347-3134.0408012

Zhou, Y., Fei, T., & Chen, J. (2021). The integration of internet and picture book: Using online picture book reading project to promote primary school students' reading literacy. *Proceedings of the SHS Web of Conferences, 123,* 01025. https://doi.org/10.1051/shsconf/202112301025