

**Forum for Linguistic Studies** 

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## ARTICLE

# Lexical Analysis of Japanese Children's Songs from the Perspective of Japanese Language Education

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## ABSTRACT

Japanese children's songs can be a valuable resource for adult learners of the language, Firstly, the vocabulary used in children's songs is predominantly high-frequency and foundational, with a large portion falling below the N2 proficiency level. By mastering the words and phrases found in these songs, learners can expand their conversational abilities beyond the confines of traditional textbooks. Secondly, the songs offer a balanced representation of positive, negative, and neutral emotions, reflecting the emotional range and nuances of the Japanese language. This exposure to diverse emotional expressions can enrich learners' understanding of language and cultural nuances. Moreover, the study's semantic analysis reveals frequent word associations and co-occurrences, which can help learners grasp the interconnectedness of Japanese culture, indirectly exposing learners to various cultural aspects, such as the appreciation of nature, the concept of transience, and the importance of harmony and interconnectedness. This cultural immersion can foster a deeper understanding and appreciation of Japanese values and traditions. Furthermore, the familiar melodies and sing-along nature of these songs can facilitate social bonding and interpersonal connections among learners and native speakers. Engaging in shared cultural experiences, such as singing nursery rhymes together, can create a sense of community and strengthen the bond between learners and the target language culture.

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#### ARTICLE INFO

Received: 15 April 2024 | Revised: 30 May 2024 | Accepted: 23 July 2024 | Published Online: 11 October 2024 DOI: https://doi.org/10.30564/fls.v6i4.6754

#### CITATION

Suryadimulya, A.S., Sakamoto, T., 2024. Lexical Analysis of Japanese Children's Songs from the Perspective of Japanese Language Education. Forum for Linguistic Studies. 6(4): 342-357. DOI: https://doi.org/10.30564/fls.v6i4.6754

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Keywords: Children's song; JLPT; Text mining; Emotional balance; Lyrics; Lexical analysis

## 1. Introduction

The appeal of singing is an inherent trait in young children. Many children's songs have been able to transcend the generations and unite adults and children in musical harmony. These melodies are passed down through family lines. This tradition can be found not only in Japan, but also in many countries around the world. In Japan's cultural landscape, a wealth of songs and nursery rhymes have been composed with the younger audience in mind. Despite their intention to use uncomplicated Japanese, can these compositions serve as effective pedagogical tools for foreign language learners? This paper attempts to answer this question by comprehensively analyzing popular children's songs in Japan, focusing on their linguistic characteristics and potential relevance to teaching Japanese as a foreign language.

Existing literature in the field of Japanese language teaching reveals a significant gap in the study of vocabulary used in children's songs. This study attempts to fill this gap by innovatively examining Japanese children's songs. Specifically, the study focuses on the lexical components of these songs. By adopting a pedagogical perspective, this research embarks on a journey to explore the untapped potential of these songs as educational resources. The study poses seven research questions, carefully crafted to unravel the complex relationship between Japanese children's songs and the field of language education. This paper aims to fill this knowledge gap and provide practical information on how to integrate nursery rhymes into Japanese language teaching.

This study addresses the seven research questions (RQ). First: Lexical Utilization in Children's Songs. The first research question (RQ 1) focused on the description of the lexical composition of the children's songs. A thorough analysis of the vocabulary used in the corpus of songs was conducted, revealing the range of words that contribute to the linguistic fabric of these compositions. Second: Collocational Patterns. In response to RQ 2, this study explored the complex interplay of words and phrases that manifest together in the context of children's songs. Through the decoding of collocational patterns, a comprehensive understanding of the language dynamics within the songs was achieved. Third: Emotional Expression. RQ 3 was concerned with

the emotional dimension inherent in the children's songs. Through careful analysis, the study determined the balance of positive/negative emotional phrases and identified the most common emotional words. Fourth: Co-Occurrence and Semantic Groups. The co-occurrence of words within the lyrics and the subsequent formation of semantic groups was examined in the fourth research question (RQ 4). This analysis shed light on how words clustered together and helped to identify thematic threads woven throughout the songs. Fifth: Prominent Parts of Speech. RQ 5 examined the prevalence of different parts of speech - nouns, verbs and adjectives - in the children's songs. This research provided a quantitative perspective on the linguistic structure of the songs. Sixth: Noun-Verb Combinations. Unpacking RQ6 led to identifying the most recurring noun-verb combinations. This analysis revealed the linguistic pairings that form the backbone of semantic content in children's songs. Seventh: Vocabulary Levels on the JLPT. Finally, RQ 7 correlated the levels of vocabulary found in the nursery rhymes with the Japanese-Language Proficiency Test (JLPT). This analysis quantified the number and percentage of nursery rhymes that fell into different JLPT vocabulary levels.

## 2. Literature review

No directly relevant antecedent studies pertaining to our research were identified. Consequently, an overview of research related to children's songs is presented, organized thematically.

## 2.1 The emergence of japanese nursery rhymes from school songs

According to Nutoh (2008), the act of imparting songs to children serves as a manifestation of cultural heritage. As adults transmit songs deemed delightful and familiar to subsequent generations, the significance lies in perpetuating tunes with a longstanding history. During the Meiji era through the Taisho and Showa periods, school songs were devised for instruction in elementary and junior high school music classes. However, their primary focus on moral and emotional education often resulted in the neglect of the artistic quality of certain compositions.

In response to this trend, a movement gained traction among literary figures of that era, aiming to craft new children's songs characterized by more colloquial lyrics that would resonate with youngsters and exhibit enhanced artistic merit. This initiative culminated in the inception of nursery rhymes, marking a cultural shift. Nutoh (2008) posits that nursery rhymes originated in opposition to school songs tailored for educational purposes but evolved into authentic children's songs—melodies that capture the essence of children's hearts and naturally find a place in their hums.

The correlation between accentuation and melody in Japanese nursery rhymes and school songs was explored by Tsutsumi and Hiraga (2014). Their investigation involved the analysis of the initial stanzas of 70 nursery rhymes and 85 school songs, wherein the lyrics were segmented into phrases and categorized based on accent types. The findings indicated a significant alignment between accentuation and melody in both nursery rhymes and school songs. Additionally, the study revealed a noteworthy degree of pitch correspondence between the melody and lyrics, implying that these songs are comparatively straightforward to sing.

In the work by Hamada (2003), the establishment of a website tailored for Japanese learners is documented. This platform encompasses the vocabulary, grammar, and sentence structures found in 56 renowned Japanese nursery rhymes and school songs. An innovative approach is employed in categorizing songs according to the complexity of their lyrics' vocabulary, grammar, and sentence structures.

## 2.2 Analysis of adjectives and adjectival phrases and japanese language acquisition perspectives

Maeda (2012) delves into the utilization of adjectives and adjectival phrases in Japanese children's songs and picture books. The findings indicate that adjectives in children's songs tend to primarily convey emotions such as happiness and joy, while those in picture books are more inclined to express evaluative judgments of goodness or badness. However, the adjective "good" can also convey empathy for others, reflecting a more intricate cognitive process. Adjectives and adjectival phrases are pivotal in conveying emotions and judgments within Japanese children's songs and picture books, contributing significantly to creating vivid imagery, emotional engagement, and imparting knowledge about the world to young readers.

Gabriel (2019) investigated the acquisition of Japanese vocabulary among university learners by using Japanese pop songs, and employing written test data for analysis. Regrettably, the results failed to reveal any statistically significant disparity between the group exposed to Japanese pop songs and the control group. The limited sample size poses challenges in deriving definitive conclusions from the statistical scrutiny.

In a study by Rao (2015), nursery rhymes were identified as an enjoyable and effective method for instructing Japanese vocabulary, grammar, and pronunciation. Moreover, they were noted to contribute to the establishment of a positive and supportive learning environment. Nevertheless, the absence of empirical data and the conclusion based on subjective impressions raise considerations about the robustness of the findings.

Tani (2014) elucidates the importance of integrating nursery rhymes into Japanese language education for native learners. The study revealed that the combined use of songs and poems has a positive impact on motivating essay writing, expanding character usage, and enhancing the richness of vocabulary and phrases employed in the learning process.

The preceding discussion has provided an overview of previous research; however, while there are indirectly related studies, no directly pertinent investigations appear to be evident. The following section elaborates on the research questions of the present study.

## 3. Research methodology

#### 3.1 Data collection

The survey conducted in this study included a selection of children's songs (See Appendix A). A comprehensive approach was taken to collect lyrics whenever possible. It is important to note that not every existing children's song was included in this research. The data set for the linguistic analysis was made up of 309 songs, consisting of a combination of nursery rhymes and some of the more commonly sung songs in the primary school context. To ensure inclusivity, a great deal of effort was put into collecting different compilations of children's songs, especially those that included nursery rhymes. The linguistic materials that were studied consisted of the lyrics that were taken from these song books.

The targeted learners were envisioned to be those studying Japanese as a foreign language or second language at the university level. However, the techniques can be broadly applied to Japanese learners ranging from children with foreign roots entering elementary schools in Japan to students studying Japanese at universities. For elementary school students learning children's songs, they would study alongside other Japanese children. The class teacher can explain the meaning of unfamiliar words as needed. From middle school through university, there are likely few opportunities for students to learn Japanese children's songs outside of their Japanese language classes. In such cases, instruction tailored to the learners' vocabulary acquisition levels would be necessary. In this paper, we will consider university-level or higher education learners of Japanese as the initial target audience.

We have collected a considerable number of children's songs, gathering them from a wide range of sources. We looked through books of children's nursery rhymes, watched children's TV programs where songs were featured, and asked mothers what kinds of children's songs are commonly sung at kindergartens and daycare centers. Through these various methods, we were able to compile a broad collection.

#### **3.2** Analytical tools

Two different tools have been used for the analysis: "AI Text Mining" and "Reading *Chuta*". These tools were chosen for their expertise in linguistic analysis and their ability to uncover underlying patterns within the collected data.

In this research paper, we are utilizing the data analysis tools AI Text Mining and Reading Chuta. AI Text Mining can create word clouds by separating text into nouns, verbs, adjectives, etc., visually display patterns of collocations, and graph the proportions of emotional expressions like positive, negative, and neutral. Reading *Chuta* can categorize words by part of speech and indicate which JLPT level each word belongs to. The tools in question were considered instrumental, vital, and paramount to realize the overarching research objectives driving this study.

### 3.3 Research approach

There were two phases to the analysis. In the first phase, AI text mining was used to perform an initial examination of the collected texts. In this phase, automated processes were used to identify the prevalent vocabulary, the syntactic structures and the thematic trends within the corpus. Subsequently, "Reading *Chuta*" was used to perform a deeper semantic analysis. This involved exploring contextual nuances and potential connotations embedded in the lyrics.

## 3.4 Data limitations

The inherent limitations of the dataset must be acknowledged. While every effort has been made to include a wide variety of children's songs, the exclusion of certain songs is unavoidable due to the vast scope of the genre. Furthermore, the accuracy of the analysis is dependent on the accuracy of the lyric transcriptions from the songbooks.

#### 3.5 Ethical considerations

Ethical considerations were of paramount importance in the analysis of the linguistic data. The content of the children's songs was treated with sensitivity to ensure that any potential cultural, social or historical implications were given due consideration.

#### 3.6 Validity and reliability

Throughout the research process, steps were taken to enhance the validity and reliability of the findings. Using multiple analytical tools and manual validation helped minimize potential bias and inaccuracies. Regarding validity, rather than relying on indirect linguistic data, we directly accessed and analyzed children's songs. This ensures authenticity, allowing us to claim high validity. In terms of reliability as well, instead of subjective human analysis, we objectively analyzed the same linguistic data using two webbased analytical tools. We can expect to obtain the same results each time the analysis is conducted, suggesting high reliability.

#### 3.7 Data interpretation

Interpretation of the linguistic data was approached with care, seeking a balance between quantitative insights from automated analysis and qualitative nuances from manual review. In the following sections, the results of the analysis will be presented in detail, shedding light on the vocabulary, thematic elements, and potential pedagogical implications inherent in the corpus of Japanese children's songs. Regarding the interpretation of the data, we referenced the analysis results from the two web tools, addressing the relevant sections necessary for each research objective. Furthermore, we attempted to relate the findings to Japanese culture as much as possible.

## 4. Results and discussion

#### 4.1 RQ 1: Lexical utilization in children's songs

The process of analyzing the data was facilitated using AI Text Mining, a method adept at extracting essential insights from linguistic text data. Through this advanced technique, a word cloud was meticulously constructed to visually encapsulate the salient attributes of the dataset. The resulting word cloud is shown in **Figure 1**, where the words are displayed in different sizes according to the frequency with which they occur in the linguistic text data.

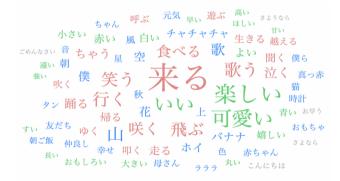


Figure 1. Word cloud based on frequency of occurrence.

The word cloud, as shown in **Figure 1**, serves as a visual representation of the prevailing linguistic patterns that were observed in the lyrics of the children's songs. The color scheme used in the word cloud serves as an insightful categorization: nouns are marked in blue, verbs are marked in red, adjectives are marked in green, and emotive words are marked in gray. The analysis identified a prominent recurring term within the children's song lyrics- "come (*kuru*, 来る)." This word has the highest frequency of occurrence and stands out as a focal point within the tapestry of language. Surrounding "come" is a constellation of words, including "fun(*tanoshii*, 楽しい)," "cute(*kawaii*, 可愛い)," "good(*ii*, いい)," "laugh(*warau*, 笑う)," "eat(*taberu*, 食べ る)," "go(*iku*, 行く)," "sing(*utau*, 歌う)," "bloom(*saku*, 咲 く)," "fly(*tobu*, 飛ぶ)," and "mountain(*yama*, 山)." Together, these words reflect the daily experiences and familiar activi -ties that appeal to children.

In Japanese culture, "a flower in bloom" is symbolically connected to hopes and aspirations in the following ways. (1) Transience and Rebirth: The short but vibrant blooming period of flowers represents the fleeting nature of life. However, their ability to bloom again the next year signifies rebirth, renewal, and the continuance of hopes for the future. (2) Seasonal Connections: Certain flowers blooming in spring (like cherry blossoms) evoke hopes for a fresh start and new beginnings after winter. Flowers are reminders to renew one's aspirations with the changing seasons. (3) Beauty in Impermanence: The exquisite beauty of a flower in full bloom, despite its temporariness, inspires appreciation of present moments while nurturing hopes for future growth and blossoming. (4) Human Qualities: Flowers epitomize desired human virtues like resilience, vitality and perseverance - continually striving to bloom despite obstacles, embodying the spirit of sustained hopes and aspirations. In essence, the natural cycle of flowers resonates with humanity's own journey - a delicate dance between the temporary and everlasting, continually renewing hopes with each blooming phase of life.

The word cloud visualized in **Figure 2** captures the complexity of these findings. In this representation, the font size emphasizes the distinctiveness and significance of individual words within the data set. In particular, the word cloud highlights the prevalence of nouns, verbs, adjectives, and inspirational words, each represented by a unique color. Nouns are blue, verbs red, adjectives green, and inspirational words grey.

One fascinating finding from the analysis concerns the remarkable ubiquity of the verb 'blossom' (*saku*,  $\mathfrak{K} \triangleleft$ ). This linguistic gem appears as a recurring element in the lyrics of the children's songs. Of particular note is the frequently used

phrase "a flower blooms(*hana ga saku*, 花が咲く)," which suggests a thematic tendency toward growth and transformation.

There is a deep symbolic resonance to the recurring motif of "a flower in bloom." This phrase serves as a poignant metaphor that may reflect the hopes and aspirations held for the child's future journey. The semantic richness of "bloom" conveys a blend of hope, progress, and anticipation of a fruitful life.



Figure 2. Word Cloud Showing Characteristics and Importance.

The inclusion of the words "*hoi*( $\pi \uparrow$ )" and "*cha-cha-cha*( $\neq \forall \neq \forall \neq \forall \neq \forall$ )" in the linguistic landscape of the children's songs is noteworthy. These expressions are often repeated in a repetitive manner. This may reflect the call-and-response dynamics characteristic of participatory singing. This rhythmic pattern is not only a contribution to the musicality of the songs, but also an invitation to active participation on the part of the young audience.

For adult learners studying modern Japanese as a foreign language, there are still valuable benefits to learning the vocabulary found in traditional Japanese children's songs and nursery rhymes, despite their antiquated nature. Here are some key reasons. (1) Exposure to etymology and linguistic roots: Many modern Japanese words have their origins in the vocabulary of these historic children's songs. Understanding the original contexts and meanings can provide insights into the etymology and evolution of the contemporary language. (2) Appreciation of cultural heritage: These songs are ingrained in Japanese cultural heritage, reflecting aspects of history, traditions, and societal values from previous eras. Their vocabularies offer a window into Japanese cultural identity over time. (3) Familiarity with idiomatic expressions: Japanese children's songs are rich with idiomatic expressions, proverbs, and figurative language. Recognizing and comprehending these can deepen understanding of such phrases still used extensively in modern Japanese dialogue. (4) Nuanced language and wordplay: The imaginative nature of these lyrics employs rhetorical devices like metaphors, puns, and other nuanced wordplay. This can improve skills in recognizing and interpreting layered language. (5) Pronunciation and intonation practice: Singing and reciting these songs with their rich rhymes and rhythms can tune the ear to proper Japanese pronunciation, intonation patterns, and a natural cadence.

While the vocabulary may seem archaic, analyzing its modern linguistic descendants facilitates a more organic acquisition of colloquial Japanese. It provides crucial cultural context for language evolution. Additionally, many Japanese still incorporate quotes, and meanings from these childhood favorites into everyday conversation. Recognizing the references bridges gaps in comprehension. So although the priority is modern vocabulary, celebrating the roots exemplified in these traditional songs yields linguistic and cultural insights that enrich overall Japanese proficiency for adult learners.

#### 4.2 RQ 2: Collocational patterns

To illustrate the dynamic relationships within the children's song lyrics, the intricate network of co-occurring keywords was graphically represented. This visualization (**Figure 3**) provides a broad view of words with similar patterns of occurrence within phrases, promoting a more sophisticated understanding of semantic relationships.

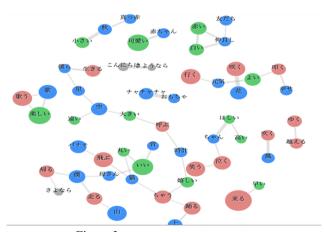


Figure 3. Co-occurrence Keywords.

The essence of co-occurrence lies in the simultaneous occurrence of more than one word within a single sentence. This phenomenon highlights semantic interplay between words, emphasizing their synergistic role in conveying meaning. The frequency of such instances and the strength of their associative ties, represented visually by the thickness of the connecting lines, indicate the robustness of co-occurrence.

In the co-occurrence graph, semantic categories are differentiated by a color scheme. Nouns appear in elegant blue, verbs in red, adjectives in green, and emotional words in grey. This color differentiation increases the interpretive clarity of the chart, allowing users to easily see the roles and relationships of different word types.

The graphical representation shows deep co-occurrence relationships through robustly delineated lines, especially observed between "flower(hana, 花)" and "bloom(*saku*, 咲 〈)", as well as "wind(*kaze*, 風)" and "blow(*huku*, 吹 〈)". These conspicuously thick lines are an indication of an inherent and robust co-occurrence relationship between these pairs of words. Such lines embody the synergy between words that naturally share a semantic connection, emphasizing the coherence of the children's song lyrics.

The underlying semantic cohesion that runs through the children's song lyrics is succinctly captured in the graphic representation. The compelling visual cues reveal the intertwining of concepts, illustrating how certain words are intricately harmonized within the lyrical compositions of the songs.

This graphic representation essentially unravels the distinct words often united within the nursery rhyme canvas. By offering a visual imprint of these co-occurring relationships, the figure enhances our understanding of the semantic intricacies that define the linguistic landscape of children's songs.

#### 4.3 RQ 3: Emotional expression

The extensive dataset of collected lyrics was subjected to a meticulous sentiment analysis to reveal the distribution of sentiments within the corpus. The goal was to quantify the percentage representation of different sentiment trends, including positive and negative connotations as well as neutral expressions (**Figure 4**).

The results of the sentiment analysis highlight the prevalence of neutral sentiments within the corpus. In particular,

sentences with neutral sentiments were found to be the most prevalent, reflecting the inherent balance in the lyrical compositions.

Within the spectrum of sentiment trends, a notable balance was observed between positive and negative sentiments. The data showed that both positive ( $\vec{x} \ensuremath{\noti} \ensuremath{\i} \ensuremath{\noti} \ensuremath{\noti} \ensuremath{\i} \ensuremath{\i}$ 

Regarding emotional expressions, words that convey positive, favorable sentiments such as 'bright, calm, cheerful, friendly, glad, happy, hopeful, joyful, kind, sunny' are classified as 'positive' words. Words that express negative, unfavorable sentiments like 'angry, bad, cranky, cruel, fearful, gloomy, grumpy, nasty, sad, unhappy' are classified as 'negative' words. Any words that are neither 'positive' nor 'negative' are considered 'neutral'.

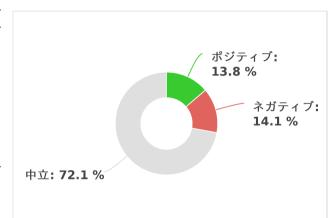
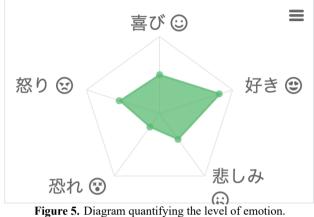


Figure 4. Percentage (%) of Trend for Positive and Negative Sentiment Sentences.

With a relatively sparse presence of both positive and negative expressions, the analysis reveals a striking prominence of neutral sentiments. This observation seems to reflect an inherent tendency of nursery rhymes to convey messages in an objective, impartial, and transparent manner, minimizing overt positive or negative value judgments. This tendency may be subconsciously embedded in the nature of nursery rhymes.

The extent of the emotional content within the totality of the collected lyrics is quantified and presented in **Figure 5**. The outward expansion of the green area within the graph is indicative of an increase in emotional intensity. Notably, emotions are ranked in the order of "like(*suki*, 好き)" > "joy(*yorokobi*, 喜び)" = "sadness(*kanashimi*, 悲しみ)" = "anger(*ikari*, 怒り)" > "fear (*osore*, 恐れ)". This ranking indicates that the emotion of "like" is the one most often - represent that the words used in the children's songs under conveved in the nurserv rhymes.

One striking observation from the graph is the relatively muted degree of emotional expression within certain emotional dimensions such as "fear (osore, 恐れ)". This phenomenon can be attributed to the inherent nature of nursery rhymes, which often tend to gravitate toward a softer end of the emotional spectrum.



#### 4.4 RQ 4: Co-occurrence and semantic groups

The intricacies of the semantic clustering have been captured in the two-dimensional map that is shown in Figure 6. This illustration embodies the inherent propensities of certain words to surface within the textual fabric of the collected texts. By placing words that share similar tendencies near one another and separating dissimilar words, the map reveals the intricate relationships within the dataset.

Semantic affinity is indicated by the proximity of words within the map. Words that frequently occur together or that share a thematic resonance are placed closer to each other, while words that differ in their usage are placed farther apart. The intentional placement and grouping of closely related words is further accentuated by a color coding scheme.

The visualization separates the data into recognizable clusters. These clusters are indicative of inherent patterns within the text. Divided into four major groups, they provide a clear overview of the thematic dimensions and linguistic patterns underlying the children's lyrics.

The four colors - blue, light green, light purple, and pink

investigation can be broadly categorized into four groups based on their meanings. Taking blue as an example, it indicates that words like "good (yoi, よい", "white(howaito, 白 い)", "eat(taberu, 食べる)", "fly(hurai, 飛ぶ)", "autumn(aki, 秋)", "red(akai, 赤い)", and "up(ue, 上)" are consolidated into this particular group. These words seem to share an underlying connection - they all relate to basic human experiences in everyday life. (1) Colors - White and red are fundamental colors that humans can see visually. (2) Actions - Eating and flying are basic actions that humans and other living beings do. (3) Evaluation - Good is a basic evaluative word humans use to judge things positively. (4) Season -Autumn is one of the four seasons that humans experience in a cycle. (5) Direction - Up refers to a basic spatial direction by which humans perceive and orient themselves. So all these words connect to fundamental aspects of human sensory experiences, behaviors, judgments, and awareness of the natural world and space around us. They represent core building blocks of how humans interface with and understand the world through perception, action, assessment, and situating ourselves in the contexts of time, space, and the environment. Despite appearing different on the surface, these words potentially share an underlying conceptual commonality in tapping into core elements of the human experience of reality.

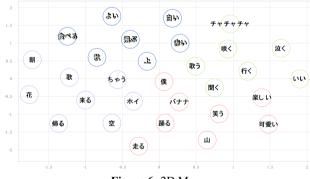


Figure 6. 2D Map.

#### 4.5 RO 5: Prominent parts of speech

Table 1 below shows the most common nouns, verbs, and adjectives from the collected text data of all lyrics.

品詞	単語	出現回数	品詞	単語	出現回数	品詞	単語	出現回数
名詞	Щ	52	動詞	来る	66	形容詞	111	78
名詞	歌	47	重力言可	歌う	42			51
名詞	花	42	動詞	行く	42	形容詞	楽しい	
名詞	バナナ	40	動詞	飛ぶ	41	形容詞	可愛い	35
名詞	僕	40	動詞	笑う	41	形容詞	赤い	31
名詞	ホイ	39	動詞	咲く	39	形容詞	白い	27
名詞	空	39	動詞	食べる	38	形容詞	小さい	23
名詞	チャチャチャ	32	動詞	泣く	35	形容詞	嬉しい	22
名詞	F	32	動詞	踊る	33	形容詞	大きい	19
名詞	朝	31	動詞	走る	30			
名詞	秋	29	動詞	帰る	28	形容詞	青い	18
名詞	風,	26	動詞	生きる	27	形容詞	おもしろい	16
名詞	母さん	24	動詞	団く	27	形容詞	丸い	15
名詞	友だち	24	動詞	120 X	26	形容詞	遠い	13
名詞	赤ちゃん	24	動詞	叩く	25	形容詞	ほしい	13
名詞	星	24	動詞	吹く	23	形容詞	早い	12
名詞	猫	24	動詞	呼ぶ	22			
名詞	真っ赤	23	動詞	岐える	22	形容詞	高い	11
名詞	時計	23				形容詞	長い	9
名詞	幸せ	23	動詞	遊ぶ	20	形容詞	強い	9
名詞	タン	22	動詞	でる	20	形容詞	甘い	8
名詞	元気	22	動詞	鳴る	19	形容詞	優しい	8
名詞	おもちゃ	21	動詞	降る	19			
名詞	仲良し	21	動詞	できる	19	形容詞	美味しい	8

Table 1. Most common nouns, verbs, and adjectives.

Within each linguistic category, notable words emerged as prominent players, providing insight into the thematic structure of children's lyrics. For nouns, the top three dominant words are "mountain (*yama*, 山)", "song (*uta*, 歌)", and "flower (*hana*, 花)", "come(*kuru*, 来る)," "sing(*utau*, 歌う)," and "go(*iku*, 行く)" for verbs, and "good(*ii*, いいい)," "fun(*tanoshii*, 楽しい)," and "cute(*kawaii*, 可愛い)" for adjectives.

The prevalence of these specific words has a deep resonance in the daily lives of the children. The nouns "mountain," "song," and "flower" represent nature, artistic expression, and organic beauty, reflecting their connection to children's experiences. The verbs "come," "sing," and "go" capture the essence of moving and engaging, symbolizing the vibrant participation characteristic of youthful life. Likewise, the adjectives "good," "fun," and "cute" capture the range of emotions and experiences that are integral to the everyday reality of children.

#### 4.6 RQ 6: Noun-verb combinations

The intricate web of noun-verb combinations prevalent in the lyrics of the children's songs is illustrated in **Table 2** below. The table encapsulates the thematic threads woven into the lyrical fabric and provides a comprehensive overview of the dynamic relationships between nouns and verbs.

The top-ranked noun-verb combinations highlight the interplay of the lexical elements that are most frequently

intertwined in the lyrics. Specifically, the combinations "flower(*hana*, 花) - bloom(*saku*, 咲く)" and "song(*uta*, 歌) - sing(*utau*, 歌う)" emerge as the leading combinations in terms of frequency. These results underline the thematic importance of terms associated with "flower" and "song", which appear throughout the lyrical narration.

Table 2.	Frequency	of noun-verb	combinations.
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名詞 - 動詞	出現頻度 🚽
花 - 咲く	18
歌 - 歌える	12
秋 - 見つける	9
誰かさん - 見つける	9
お花 - 笑う	8
種 - 蒔く	7
態度 - 示す	6
赤ちゃん – 引く	6
風邪 - 引く	6
空 - 描く	6
僕ら - 生きる	6
階段 - 上る	5
幸せ - 示す	5
ペチカ - 燃える	5
雨 - 降る	5

In Japanese children's songs, combinations like "花が 咲 く" (*hana ga saku*, flowers bloom) and "歌を歌う" (*uta wo utau*, to sing a song) are prevalent. These combinations are widely used in Japanese culture and language, reflecting the nation's emphasis on harmony, interconnectedness, and the appreciation of natural phenomena. Firstly, the Japanese language is heavily influenced by the country's cultural heritage, which is deeply rooted in the appreciation of nature and its cyclical patterns. These combinations often depict natural events or processes, such as flowers blooming or birds singing, which are fundamental elements in Japanese art, literature, and poetry. By incorporating these constructions into children's songs, Japanese culture aims to instill a sense of reverence and appreciation for the beauty of the natural world from an early age. Secondly, the Japanese concept of "mono no aware (物の哀れ)", which translates to "the pathos of things," emphasizes the transient and impermanent nature of existence. These combinations, with their descriptions of fleeting moments and cyclical processes, exemplify this concept and serve as a gentle reminder of the ephemeral nature of life. Children's songs containing these constructions subtly introduce this philosophical outlook, encouraging children to cherish and find beauty in the present moment.

The prevalence of these combinations in Japanese children's songs is a reflection of the country's cultural heritage, philosophical beliefs, and linguistic traditions. These combinations serve as a means to introduce children to the appreciation of nature, the transience of life, and the importance of harmony and interconnectedness – values that are deeply rooted in Japanese society.

#### 4.7 RQ 7: Vocabulary Levels on the JLPT

Given the unavailability of the vocabulary list for the new test levels, this study's analysis relies on using the previous test levels' vocabulary list and extrapolating its applicability to the new levels. This approach serves as an interim measure to gain insight into the vocabulary landscape of the new test.

In this context, an investigation was conducted to determine the compatibility of the previous vocabulary list with the new test levels. The research uncovered a set of 442 out-of-level words that were conspicuously absent from the old test vocabulary list. These words included both archaic terms and vocabulary used primarily by young children.

In addition to these outliers, a significant number of words were found to match levels N2, N3, and N5. This observation confirms that considerable overlap exists between the vocabulary requirements of the new test levels and the lexical components embedded in the children's songs (**Table 3**).

The analysis illuminates the comprehensive scope of

vocabulary inclusion within the scope of the former JLPT levels. One notable finding is that a significant portion, approximately 60 percent or more, of the vocabulary is consistent with the vocabulary found within the framework of the former JLPT.

総語数	1539
級外	442
N1	71
N 2~N3	333
N4	163
N5	350

Table 3. Number of different words in JLPT vocabulary levels.

Further examination reveals that the vocabulary that ranges from N5 to N2 accounts for a little more than half of the total vocabulary, which amounts to 62%. This distribution emphasizes the connection between the lexicon of children's songs and the spectrum of the earlier JLPTs.

A distinct subset of 442 words emerges and requires separate preparation for teaching vocabulary. This subset includes words that are beyond the range of previous JLPT levels.

The analysis also shows that about 38% of the vocabulary is beyond the threshold of the N1 level and above, reflecting a level of complexity that can be a challenge for songs aimed at children.

**Figure 7** provides a visual representation of the distribution of vocabulary across JLPT levels, providing a comprehensive snapshot of the percentage representation within each stratum.

**Figure 7a** captures the distribution of the vocabulary based on the noun levels of the JLPT, showing the percentage representation (%) along with a comprehensive breakdown in terms of the number of words that fall into each category.

When examining the distribution within the noun category, a notable observation emerges. Words classified as out-of-grade (*kyuugai*, 級外) and those classified within N1, the highest JLPT level, comprise about half of the nouns. This nuanced account underscores the complexity embedded in the nursery rhymes themselves, revealing that the lyrical compositions traverse a challenging terrain. **Figure 7b** illustrates the complex distribution of verb vocabulary across JLPT levels. The figure shows the percentage representation (%). It also provides a comprehensive breakdown of the number of words assigned to each level.

When examining the distribution of verb vocabulary, a profound revelation emerges. Within this category, there is a notable deviation from the distribution of the noun vocabulary. The collective proportion of "out of level (級外)" and N1 level verbs is approximately 29%. This shift in the distribution represents a significant departure from the patterns of noun vocabulary and suggests a distinct linguistic landscape within the verb-centric nursery rhymes.

The stark contrast in verb distribution underscores a dramatic shift in linguistic complexity from nouns. The profound learning complexity embedded in these compositions is reflected in the increased presence of out-of-level and N1 verbs within the nursery rhymes.

**Figure 7d** reveals the intricate distribution of adjective vocabulary across JLPT levels. The figure summarizes the percentage representation (%). It also provides a comprehensive breakdown of the number of words assigned to each level.

An interesting observation emerges from the analysis of the distribution of adjective vocabulary. The cumulative percentage of out-of-level and N1 adjectives manifests at an even lower level, hovering around 18%, in stark contrast to both the noun and verb vocabulary distributions. This noticeable shift emphasizes a remarkable departure from the linguistic complexity that prevails in nouns and verbs.

Compared to nouns and verbs, the distribution of adjectives presents a distinct linguistic landscape. The reduced presence of out-of-level and N1 adjectives in nursery rhymes highlights the specific linguistic structure that characterizes adjective-centered lyrical compositions.

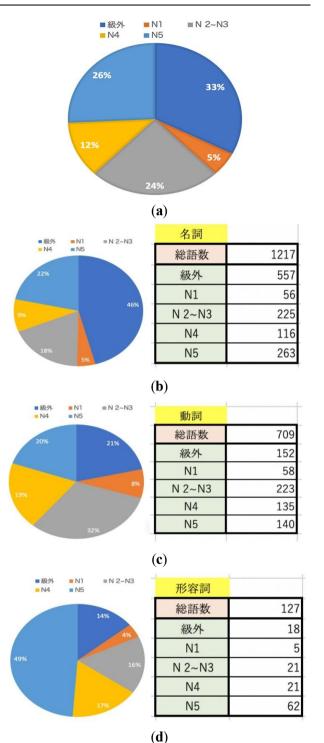


Figure 7. (a) Percentage of vocabulary by JLPT level (%). (b) Percentage (%) and Breakdown (Number of Words) of Nouns in the JLPT by Vocabulary Level. (c) Percentage (%) of Vocabulary by Level of JLPT Verbs and its Breakdown (Words). (d) Percentage of Adjectives in the JLPT Vocabulary by Level and their Breakdown (Words).

## 5. The tortoise and the hare, for example

The song, the tortoise and the hare, is about a race between a tortoise and a rabbit, which originates from one of Aesop's fables, but it is also widely sung among children in Japan. The moral lessons conveyed resonate strongly with Japanese culture, and there is hardly anyone in Japan unfamiliar with this song.

もしもしかめよかめさんよ せかいのうちにおまえほど あゆみののろいものはない どうしてそんなにのろいのか なんとおっしゃるうさぎさん そんならおまえとかけくらべ むこうのこやまのふもとまで どちらがさきにかけつくか どんなにかめがいそいでも

どうせ ばんまで かかるだろう ここらで ちょっと ひとねむり グーグー グーグー グーグーグー

これは ねすぎた しくじった ピョンピョン ピョンピョン ピョンピョンピョン あんまり おそい うさぎさん さっきの じまんは どうしたの

Oh, Mr. Turtle, Mr. Turtle In all the world, there's none so slow As you, with your sluggish pace, you know Why do you move so very slow?

Why, Mr. Rabbit, if you please Then let's have a race, if you agree To the foot of that hill over there And see who gets there first, I swear

No matter how fast the turtle tries It'll take him till the evening skies So let's just take a little nap Zzz, zzz, zzz, zzz, zzz, zap

Oh, he overslept, what a shame Hop, hop, hop, hop, hop, hop, hop Mr. Rabbit's really quite the lame What happened to your boastful claim?

The tortoise is very slow, and the rabbit makes fun of it. The rabbit challenges the tortoise to a race to the foot of a nearby hill. The rabbit is confident it will win easily since the tortoise is so slow. However, the rabbit gets too confident and decides to take a nap halfway through the race. By the time the rabbit wakes up, the slow and steady tortoise has already won the race. The moral is that overconfidence can lead to failure, and slow and steady effort often wins out in the end.

This classic children's song teaches some valuable lessons and perspectives through the story of the race between the tortoise and the rabbit. Here are some of the key themes and values it conveys. (1) Persistence and determination: The song shows that slow and steady progress through persistent effort can ultimately lead to success, even against faster opponents. The tortoise keeps plodding along despite being much slower than the rabbit. This teaches the importance of perseverance, diligence and not giving up easily. (2) Humility and avoiding overconfidence: The rabbit's downfall comes from being arrogant and overconfident in its abilities compared to the tortoise. The song cautions against underestimating opponents and becoming boastful or cocky, as that can lead to carelessness and failure. It promotes the value of humility. (3) Patient dedication beats natural talents: While the rabbit relies solely on its natural speed and talents, the tortoise has to work much harder due to its inherent slowness. The story shows that dedicated effort can sometimes overcome or surpass natural gifts and talents if one is not diligent. (4) Never underestimate the underdog: Linked to overconfidence, the tale is a classic underdog story warning not to underestimate or discount someone based on perceived weaknesses or disadvantages. The meek tortoise proves itself against the physically superior rabbit. So in essence, it is a story reinforcing virtues like persistence, humility, hard work and not judging by outward appearances - valuable perspectives to instill in children at a young age.

The fable of the persevering tortoise beating the overconfident hare in a race resonates strongly with Japanese cultural values. In Japan, diligence, patience, and humility are highly prized virtues known as the "spirit of *gaman* (pa -tience, endurance)." Like the steady tortoise, the Japanese often emphasize commitment, hard work, and not boasting or becoming complacent - even when facing challenges from those who may seem faster or more talented initially. The moral of the tortoise's victory teaches that consistent effort can overcome natural disadvantages. This aligns with Japan's focus on continuous self-improvement through disciplined effort over time. The hare's mistake of laziness and overconfidence cautions against arrogance and underestimating opponents. Overall, the tortoise's perseverance symbolizes core Japanese ideals of resilience, modesty, and dedication that can ultimately lead to success.

## 6. Conclusion

Embracing nursery rhymes enables individuals to engage harmoniously with familiar tunes, promoting social bonding. Learning the vocabulary inherent in children's lexicons expands conversational potential beyond conventional textbooks. The cultural dimensions embedded in children's songs provide students with an indirect way to appreciate Japanese culture.

The findings of this study can be summarized as follows: 1) In terms of frequency, the majority of words, especially verbs and adjectives, are foundational in nature; 2) The importance and characteristic words align closely with the frequency, although minor disparities exist; 3) Co-occurrence analysis reveals frequent associations between certain words; 4) A balance exists between positive and negative emotions, with neutral emotions dominating; 5) In the realm of emotions, "happiness = sadness = anger > fear" is prevalently employed; 6) Semantic analysis positions words within a two-dimensional map, dividing them into four main groups; 7) High-frequency nouns, verbs, and adjectives are predominantly related to children's daily life; 8) Approximately 60% of vocabulary falls below N2 level; 9) Nouns exhibit a high percentage of out-of-class words, suggesting a challenging nature; 10) Verbs exhibit balanced distribution across levels, albeit with a minor proportion at N1; 11) Adjectives at N5 level encompass nearly half, and when N2 is included, over 80% of used adjectives.

This study reveals that Japanese children's songs primarily utilize high-frequency, foundational vocabulary related to daily life, with a balance of positive and negative emotions dominated by neutral ones. Semantic analysis maps the words into four main groups, highlighting frequent word associations. Notably, around 60% of the vocabulary falls below the N2 proficiency level, with nouns exhibiting a high percentage of challenging, out-of-class words. Verbs are distributed across levels, albeit with a small portion at the highest N1 level. Adjectives, on the other hand, are predominantly at the N5 and N2 levels, encompassing over 80% of the adjectives used in these songs. Overall, the vocabulary aligns closely with children's lived experiences and language development stages.

As implications for Japanese learners, learning nursery rhymes aids fluency in singing familiar songs and facilitates interpersonal connections. Then, mastery of words often used by young children enriches conversational interactions and language variety. In addition, nursery rhymes encapsulate facets of Japanese culture, fostering cultural awareness in learners.

Regarding future explorations, avenues for future exploration remain open, although this study has shed light on various facets of Japanese nursery rhymes. Delving into the cultural and historical dimensions that are intertwined in nursery rhymes promises to yield further insights. Furthermore, exploring pedagogical methods that best utilize these findings to effectively teach Japanese holds promising potential.

## Appendix A

AI Text Mining https://textmining.userlocal.jp Reading Chuta https://chuta.cegloc.tsukuba.ac.jp

[Source: Number of children's songs (including some school songs) surveyed: 309 songs].「アイアイ」「アイスクリームの歌」「青い童話」「青い風」「青い眼の人形」「赤い靴」「赤い鳥小鳥」「赤い帽子白い帽子」「赤ちゃん」「赤ちゃんのカンガルー」「赤とんぼ」「赤鼻のトナカイ」「秋」「秋の子」「秋の野」「秋のひぐれは」「上がり目下がり目」「握手でこんにちは」「朝一番早いのは」「あさがお」「あさごはんマーチ」「朝はどこから」「あした」「頭片膝ポン」「アップルパイひとつ」「あの町この町」「アビニョンの橋の上で」「あひるの行列」「あぶくたった」「雨」「雨降りお月さん」「あめふり」「あめふり熊の子」「あらどこだ」「アルプス一万尺」「あわてんぼうの歌」「あわてんぼうのサンタクロース」「あんたがたどこさ」「池の鯉」「痛いの痛いの飛んで行け」「一月一日」「一年生になったら」

「一番星見つけた」「一寸法師」「一本でも人参」「一本箸 こちょこちょ | 「糸巻きの歌 | 「犬 | 「犬のおまわりさん | 「いもむしごろごろ」「うぐいす」「兎」「兎と亀」「兎のダ ンス」「牛若丸」「歌えバンバン」「歌の町」「うちの子猫」 「宇宙船の歌」「海」「浦島太郎」「嬉しいひな祭り」「江戸 子守唄」「エビカニクス」「おうま」「お江戸日本橋」「大 きな栗の木の下で」「大きな太鼓」「大きな古時計」「大 さむ小さむ」「お母さん」「おかたづけ」「おきあがりこ ぼし」「お猿のかごや」「お正月」「お相撲熊ちゃん」「お たまじゃくしは蚌の子」「おちゃらかほい」「お茶を飲み に」「お使いありさん」「お月さんとぼうや」「お爪を切り ましょう」「お手紙」「おててをあらいましょう」「お寺 の和尚さん」「おなかの減る歌」「鬼さんこちら手のなる ほうへ」「鬼のパンツ」「おばけなんてないさ」「おはな が笑った」「お話指さん」「お花のホテル」「お風呂ジャ ブジャブ」「おへそ」「おべんとうばこの歌」「お星さま」 「おぼろ月夜」「お牧場は緑」「おむねをはりましょ」「思 い出のアルバム」「おもいでコアラ」「おちゃらか」「おも ちゃのチャチャチャ」「おもちゃのマーチ」「泳げ! たい 焼きくん」「おんまはみんな」「かえるの合唱」「案山子」 「かくれんぼ」「かごめかごめ」「肩たたき」「かたつむり」 「かっこう」「カナリヤ」「かもめの水兵さん」「烏」「カレ ーライスの歌」「可愛いかくれんぼ」「<sup>隠</sup>れん坊」「かわ いい魚屋さん」「汽車」「汽車ぽっぽ」「北風小僧の貫太 郎」「きのこ」「キャンプだほい」「きよしこの夜」「きら きら星」「金魚」「金魚の昼寝」「金太郎」「食いしん坊お 化け」「グーチョキパーで何作ろう」「鯨の時計」「靴が 鳴る (おててつないで)」「クマのぬいぐるみ」「クラリ ネットをこわしちゃった」「月火水木金土日のうた」「げ んこつ山のたぬきさん」「鯉のぼり」「子馬」「黄金虫」「故 郷の空」「小狐」「小鳥の歌」「この道」「こんこんくしゃ んの歌」「権兵さんの赤ちゃん」「さくら」「サッちゃん」 「さるかに」「サンタが街にやってくる」「サンタルチア」 「散歩」「幸せなら手を叩こう」「叱られて」「静かな湖畔」 「シャベルでホイ」「しゃぼん玉」「ジャングルジムうた」 「ジャングルポケット」「十五夜お月さん」「10人のイン ディアン」「証城寺の狸囃子」「白くま」「ジングルベル」 「すいかの名産地」「ずいずいずっころばし」「数字の歌」 「スキー」「すずむしのうた」「雀のお宿」「雀の学校」「世 界中のこどもたちが」「背くらべ」「線路は続くよどこま でも」「そうだったらいいのにな」「象さん」「象さんの 散歩」「空にらくがきかきたいな」「焚き火」「竹田の子 守唄」「たこの歌」「七夕<sup>様</sup>」「楽しいね」「だるまさん」 「太郎さんの赤ちゃん」「だんご三兄弟」「小さい秋見つ

けた」「小さな畑」「ちっちゃなフォログラファー」「茶 摘み | 「チューリップ | 「蝶々 | 「月 | 「月の砂漠 | 「手を つなごう」「手のひらを太陽に」「手まり歌」「てるてる 坊主」「手を叩きましょう」「手をつなごう」「電車ごっ こ」「通りやんせ」「時計の歌」「どこかで春が」「どこで 寝るの」「ドナドナ」「トマト」「ドレミの歌」「トロイカ」 「ドロップスの歌」「どんぐりころころ」「飛んでったバ ナナ」「とんとんトマトちゃん」「とんとん友達」「とんと んとんとんひげじいさん」「どんな色が好き」「とんぼの メガネ」「内緒話」「仲良し小道」「夏の思い出」「夏は来 ぬ」「七つの子」「虹の向こうに」「にてるかな」「人間っ ていいな」「猫踏んじゃった」「ねんねんころりよ」「走る の大好き」「バスごっこ」「働く車」「はだかんぼっていい ね」「鳩」「花」「花いちもんめ」「はなさかじじい」「バン ナが作れるバナナ」「バナナの親子」「花火」「花嫁人形」 「浜辺の歌」「早起き時計」「春が来た」「春の小川」「春 よ来い」「パンダうさぎコアラ」「パンはパンでも!?」 「ピクニック」「ピクニックマーチ」「ひょっこりひょう たん島」「ひらいたひらいた」「富士の山」「不思議なポ ケット」「ぶらんこ」「故郷」「ぶんぶんぶん」「べこの子 うしの子」「ペチカ」「ぼうが一本 (あったとさ)」「僕の ミックスジュース」「蛍来い」「蛍の歌」「蛍の光」「マー チング・マーチ」「牧場の朝」「待ちぼうけ」「まっかな 秋」「松ぼっくり」「ママのイヤリング」「豆まき」「鞠と 殿様」「みかんの花咲く丘」「水遊び」「見てござる」「み どりのそよ風」「南の風の」「南の島のハメハメハ大王」 「みんなで誕生日」「虫のカーニバル」「虫の声」「むすん で ひらいて」「村祭」「村の鍛冶屋」「めだかの学校」「メ リーさんの羊」「紅葉」「桃太郎」「森の熊さん」「森の小 人」「森へ行きましょう」「やぁ こんにちは」「やきい もグーチーパー」「やぎさん郵便(局)」「やさいの歌」 「山があって」「山口さんちのツトム君」「山寺の和尚さ ん」「山の音楽家」「山のワルツ」「夕方のお母さん」「夕 日」「郵便屋さん」「夕焼け小焼け」「雪」「指きりげんま ん」「ゆりかごのうた」「りんごのひとりごと」「笑い声っ ていいな」「我は海の子」 Ai ai, Ice Cream Song, Blue Fairy Tale, Blue Wind,

Blue-Eyed Doll, Red Shoes, Red Bird Little Bird, Red Hat White Hat, Baby, Baby Kangaroo, Red Dragonfly, Red-Nosed Reindeer, Autumn, Autumn Child, Autumn Field, Autumn Twilight, Up and Down, Handshake with Hello, The earliest morning, Common Morning Glory, Breakfast March, Where does morning come from?, Tomorrow, Head Shoulders Knees and Toes, One Apple Pie, That Town and This Town, On the Bridge in Avignon, Procession of Ducks, Bubbly, Rain, It's raining-moon, Rainfall, Rainfall and Baby Bear, Oh Dear! Where are you?, Alps, The Song of flustered person, Hasty Santa Claus, Where is your home?, Carp in a Pond, Ouch Ouch Fly Away, January 1, When I become freshman, I found the first star, Tom Thumb, One Japanese ginseng, Chopsticks Chop-Chop, Song of the Spinning Spool, The Dog, Dog Officer, Caterpillar, Japanese nightingale, Rabbit, Rabbit and Turtle, Rabbit Dance, Ushiwakamaru(boy's name), Sing it bang, bang!, Town with Songs, My Kitten, Spaceship Song, Ocean, Urashima Taro(boy's name),, Happy Doll Festival, Edo Lullaby, Shrimp Canix, horse, Oedo Nihonbashi, Under the Big Chestnut Tree, The Big Drum, The Big Old Clock, Very Cold Weather, Mother, Tidying up, self-righting doll, Monkey Carrying a Person in a Basket, New Year's, Sumo Bear, Tadpole is a Frog's Child, Hurrah, To Drink Tea, Errand Ant, Moon and Boy, Let's Cut Your Nails, Letter, Let's Wash Our Hands, The Monk at the Temple, A Song about Getting Hungry, Demon, Come toward the Sound of Hands, Demon's Underpants, There's no Such Thing as Ghosts, Flowers laughed, Storytelling Fingers, A Hotel Full of Flowers, Bath Jabu Jabu, Belly Button, Lunch Box Song, Stars, Spring Night with a Hazy Moon, Pasture is Green, Let's Get it Off Our Chests, Album of Memories, Memories of a Koala, Joking, Toy Cha Cha, Toy March, Swim! Taiyaki-kun(fish-shaped pancake filled with bean jam), All the Horses are, Frog Chorus, Scarecrow, Hide and Seek, "bird-in-the-cage" children's game, Shoulder Tap, Snail, Common Cuckoo, Canary, Seagull Sailor, crow, Curry Rice Song, Cute Hide and Seek, hide and seek, Cute fishmonger, A Steam Train, Choo-Choo Train, Kantaro the North Wind Boy, Mushroom, Camping, Silent Night, Twinkling Stars, Goldfish, Goldfish Napping, Kintaro (hero boy of Japanese folklore, who befriended animals and had supernatural strength), Gourmand Ghosts, What Shall We Make with Rock-Paper-Scissors Game, The Whale Clock, Rattle One's Shoes, Stuffed Bear, I Broke My Clarinet, Songs for Monday Tuesday Wednesday Thursday Friday Saturday and Sunday, Raccoon Dog Breeds on Mt. Genkotsu, Carp Streamer, Pony, Golden Moth, Hometown Sky, Little Fox, Little Bird Song, This Road, Kwon-Kwon Kushan Song, Gombei's Baby, Cherry Blossom, Sat-chan, Monkeys and Crabs, Santa Claus is Coming to Town, Santa Lucia, Stroll, If You're Happy Clap Your Hands, Be Scolded, Quiet

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356

by the Lake, Hoi with Shovel, Bubbles, Jungle Gym Song, Jungle Pocket, the Night Moon of the 15th Lunar Month. Ten Indians, Raccoon Music from Senjoji Temple, Polar Bears, Jingle Bells, Famous Watermelon Farm, Zuizui Zukkorobashi(tossing a person into a corner and throwing him or her down), Song of Numbers, Skiing, The Song of the Bellbird, Sparrow Inn, Sparrow School, Children around the World, Comparing Heights, , The tracks go on and on forever, I wish it were, Elephants, Elephant Stroll, I Wish I Could Draw Graffiti in the Sky, Bonfire, Lullaby of Takeda, Kite Song, Festival of the Weaver, Fun, Daruma, Taro's Baby, Dumplings Three Brothers, Tiny Autumn Found, Tiny Fields, Small Phorografer, Tea Picking, Tulips, Butterflies, Moon, Moon Desert, Let's Join Hands, Hand to the Sun, Handball Game Song, Teruteru Bozu(paper doll to which children pray for fine weather), Let's Clap Our Hands, Let's Join Hands, Playing with Trains, Dorivanse(please pass by), Clock Song, Somewhere in the Spring, Where Will I Sleep, Donadona(a call when chasing a bull.), Tomato, Doremi Song, Troika, Drops Song, Donguri Korokoro(rolling around with one's acorns), Flying Bananas, Tonton Tomato, Tonton Friends, Tonton Bearded Old Man, What Color Do You Like, Dragonfly's Glasses, Secret Talk, Dog Friendly Street, Memories of Summer, Summer Never Comes, Seven Children, Over the Rainbow, I Wonder if They Look Alike, It's Nice to Be Human, Cat Trampled, Nenen Kororiyo(Sleep well), I Love to Run, Bus Play, Working Car, I Love Being Naked, Dove, Flowers, Hanaichimonme(first flower to appear after a bloom), Old Man Who Blossomed Flowers, Bananas That Can Make Bananas, Banana Parent and Child, Fireworks, Bride Doll, Song on the Beach, Early Rising Clock, Spring is Here, Spring Stream, Come Spring, Panda Rabbit Koala, Bread is Bread But! Picnic, Picnic March, Gourdon Island, Open Open, Mt Fuji, Mysterious Pocket, Swing, Hometown, Bun Bun Bun(the sound of bees flying), Cow Children, Fireplace, I heard there was one stick, My Mixed Juice, Firefly Come Here, Firefly Song, Firefly Light, Marching March, Morning at the Farm, Waiting and Waiting, Deep Autumn, Pine Cone, Mama's Earring, Bean-throwing, Ball and Lord, Hill with Tangerine Blossoms, Playing in the Water, Watching Us, Green Gentle Breeze, Southern Wind, King Hamehameha of the Southern Islands, Birthday for Everyone, Carnival of the Insects, Sound of Insects, Close and Open Hands, Village Festival, Village Blacksmith, The School of Killifish, Merry's Sheep, Autumn Leaves, Peach Boy, The Bear in the Forest, The Dwarf in the Forest, Let's Go to the Forest, Hello, Roasted Sweet Potato *goo-chee-pah*, Goat's Post Office, The Vegetable Song, There Was a Mountain, Mr. Yamaguchi's Tsutomu, The Monk of the Mountain Temple, The Mountain Musician, The Mountain Waltz, Mother in the Evening, Sunset, Postman, Sunset Glow, Snow, Yubikirigenmann (making a pledge by hooking each other's little fingers), Song of the Cradle, The Apple's Soliloquy, Laughter is Nice, I Am a Child of the Sea

## **Author Contributions**

Conceptualization, A.S.S.; methodology, T.S.; software, T.S.; validation, A.S.S.; formal analysis, A.S.S.; investigation, T.S.; resources, A.S.S.; data curation, T.S.; writing —original draft preparation, A.S.S.; writing—review and editing, A.S.S. and T.S.; visualization, A.S.S. and T.S.; supervision, A.S.S.; project administration, A.S.S. All authors have read and agreed to the published version of the manuscript.

## **Conflict of Interest**

The authors declare that there is no conflict of interest.

## **Data Availability Statement**

All data generated or analyzed during this study are included in this article. Further enquiries can be directed to

the corresponding author.

## Funding

This research received no external funding.

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