

## Developing A STEAM Song for Teaching English in Early Childhood

Danti Pudjiati<sup>1\*</sup>, Ambar Pawitri<sup>2</sup>

<sup>1</sup>Pendidikan Bahasa Inggris, STKIP Kusuma Negara, Indonesia

<sup>2</sup>Pendidikan Anak Usia Dini, STKIP Kusuma Negara, Indonesia

\*dantipudjiati@stkipkusumanegara.ac.id

### Abstract

The study has an aim to develop a STEAM song for teaching English in the context of early childhood. This song is considered as a pedagogical tool which is important to improve children ability in speaking and listening as well. It is an RnD research with Succesive Approximation Model (SAM) by Michael Allen and the data are collected through forum group discussion among teachers and music composer. The research result showed that the title of the song is "Colour The World" with simple English sentences of present tense. They are some colours to be introduced for children and the music is energetic as well to encourage them moving their part of body freely.

Kata kunci: Children song, early childhood, teaching English.

Dikirim: 1 Juli 2024

Direvisi: 20 Juli 2024

Diterima: 31 Juli 2024

### Identitas Artikel:

Pudjiati, Danti & Pawitri, Ambar (2024). Developing A STEAM Song for Teaching English in Early Childhood. *Jurnal Cerlang Pendidikan Anak Usia Dini (JCPAUD)*, 1(2), 8-15.

## INTRODUCTION

The use of songs in language learning is indeed a well-known pedagogical tool. When children engage in singing, they can practice various language skills, including listening, speaking, reading, vocabulary mastery, understanding sentence structure, and identifying pronunciation (Andayani, 2022; Good et al., 2015; Ow et al., 2023). Songs provide an excellent opportunity for students to improve their pronunciation, especially listening skills. By rehearsing different forms of intonation and rhythm, learners become more attuned to the nuances of spoken language. Recognizing different types of intonation and rhythm is crucial for effective communication. Songs help learners hone their emotional expression, reducing the risk of misunderstanding (Babelyuk et al., 2021; Garba et al., 2020; Kumar et al., 2022).

Understanding pronunciation through songs will also make it easier for children to improve their listening and speaking skills which are useful as a basis for mastering reading skills. The use of songs in language learning is known as a pedagogical tool. Through singing, students can practice various language skills and competencies such as listening, speaking, reading, vocabulary mastery, understanding sentence structure and identifying pronunciation (Al-Smadi, 2020; Muhamad & Rahmat, 2020; Palupi et al., 2022).

Songs can be stored in both short-term and long-term memory (Hamilton & Murphy, 2023; Jäncke, 2019; Williams, 2022). When students listen to songs relevant to their learning, the content is automatically retained, enhancing their

overall language acquisition. Songs create an enjoyable and relaxed learning environment and they offer language practice opportunities through repetition and contribute to language association, assimilation, and phonological skills.

At the time children learn English through singing songs accompanied by music, they have the opportunity to develop various kinds of intelligence or what is commonly called multiple intelligences (Bolt, 2021; Ernawati et al., 2019; Şener & Çokçalışkan, 2018). By singing and listening to songs directly, children can also develop verbal and intrapersonal intelligence so that their growth and development becomes much better. Therefore, singing in English is a recommended activity, especially at the early childhood and primary education levels.

When selecting a song as a teaching material, educators should exercise caution because vocabulary and sentence structures may diverge between written and spoken language. This awareness is crucial to ensure effective communication in the classroom. However, the principal concern in choosing educational song is children are interested to sing because of the harmonious relation between lyrics and melody (Andayani, 2022; Torras Vila, 2021).

### **Educational Song**

English children's songs for educational purposes follow specific guidelines. These songs typically in one octave and they often repeat lyrics to emphasize essential content. The simplicity of sentence structures in these songs aids children in recognizing and understanding the lyrics and they can remember them because of hearing the song oftenly (Bautista & Ho, 2021; Sinaga, 2022; Wadiyo et al., 2022). Here are some key points about educational songs.

1. **Relevance to Learning Topic:** Educational songs should align with the learning topic.
2. **Interest for Children and Teachers:** They should be interesting for both children and teachers.
3. **Cheerful Atmosphere:** The tone should be moderate, neither too high nor too low.
4. **Harmony Between Lyrics and Melodies:** The lyrics and melodies should suit children's characters.
5. **Use of Simple Sentences:** Considering English as a foreign language, simple sentences are preferred.

Practicing educational songs provide benefits for children as they can develop their multiple intelligences, including verbal-linguistic, musical, and intrapersonal skills. This aligns with previous research by Sinaga (2022) and Winangsit & Sinaga (2020), who found that children's songs positively impact gross motor skills, self-confidence, and cognitive development. Therefore, incorporating music into language learning can be beneficial for young learners.

### **STEAM Education**

STEAM (Science, Technology, Engineering, Arts, and Mathematics) is proposed to teach since early childhood. Within the context of early childhood education, the STEAM principle is intricately woven into play-based learning (Lange et al., 2022). STEAM encompasses practical activities that children engage in on a daily basis. For instance, they observe various shapes in their environment, construct forts using

cardboard boxes, participate in role-playing scenarios like simulating market transactions, experiment with pouring liquids, manipulate containers of different sizes, and explore color mixing by combining various paint colors (DeJarnette, 2018; Marwiyah, 2022; Siantajani, 2020). Furthermore, music and song are intricately connected to STEAM skills because early exposure to creative arts fosters cognitive development and contributes to enhanced self-esteem.

In early childhood education, integrating STEAM involves focusing on both content and processes (Jamil et al., 2018). Teachers should incorporate subject areas (science, technology, engineering, art, and math) within a meaningful context. For instance, recording daily weather on a chart and creating weekly summaries can support science and math learning while also teaching data gathering and analysis processes. Long-term STEAM projects, like exploring optimal conditions for a class pet, integrate various subject areas. STEAM fields provide complementary perspectives on the world. Encourage inquiry experiences by asking high-quality, open-ended questions.

Though STEAM education permits teachers to deliver STEAM in various creative means of learning, yet a number of teachers could not perform STEAM teaching correctly (DeJarnette, 2018; Jamil et al., 2018). This is possibly lead to the lack supply on learning materials which is known by teachers. The sort of resources feasibly create weaknesses of STEAM education for teachers (Awang et al., 2020). Nevertheless, teachers are encourage to explore creatively in introducing STEM idea in a simple way suc as blocks construction, clay handling, melodramatic games, drawing, singing and dancing (Jamil et al., 2018; Karmiati et al., 2021).

## **RESEARCH METHOD**

This research and development used successive approximation model (SAM) which is proposed by Michael Allen (Allen & Sites, 2012). It organises three stages, namely preparation, iterative design and iterative development. Initially, preparation is the most crucial because of functioning as the base for further stage of two major such as information gathering and SAVVY Start. Researchers has an aid from early childhood teachers and a music composer to gather information dealing with (1) the content of song lyrics, (2) English words, especially the colours to be exposed, and (3) the music composition. The vocabulary referred to science elements of early childhood and the rhythm is happy to meet children character who is active. At the SAVVY stage, researchers are assisted by the teachers to create a design of simple English song for children.

Secondly, iterative design means after the song design is entirely created, it follows to the next three significant steps, namely (1) reviewing the design, (2) gaining feedback, and (3) yielding prototypes. The design review is discussed by teachers and a music composer. Finally, if the design already meets the requirements, then a prototype is created. These three stages are possible to be repeated up to 3 times so that the prototype is in the most ideal form.

Thirdly, iterative development covers (1) developing a teaching materials of English song, (2) adminestering a trial, and (3) evaluation. At the time the prototype was designed completely then it can be developed. Such three steps are a cycle that can be repeated up to 3 times before the final product is launched to users.

## RESULT AND DISCUSSION

### The Application of SAM Model

Three stages are taken in producing an English STEAM song intended for children. During preparation phase the researchers and teachers consider the number of song lyric and the words in terms of parts of speech to be written in the song. We composed a song entitled “Colour the World” with simple sentences of present tense and basic vocabulary of colour.

“Colour the World” is used to recognize kinds of colour which are found easily by children in their environment. This song relates to science and the approach of present STEAM through a song is a part of an art activity (MARWIYAH, 2022). In regard to music composition, that song has a timbre of children song, (2) a dynamic to encourage children in exploring their imagination, (3) a fast tempo with a purpose to invite children to move energetically, (4) a modest and repeated rhythm as indication of easy listening, (5) a moderate melody, and (6) a simple of music structure (Purhanudin, 2022; Wadiyo et al., 2022).

### The Lyric

The song consists of 37 words with 11 nouns, 8 verbs and 8 adjective, and 8 determiners. There are eight sentences divided by two. The first four sentences can be called as the first stanza and the second four sentences is called as second stanza. Children are able to learn about transition through song as they hear of something different form in the music (Abdul Razak & Md Yunus, 2016; Lawson-Adams et al., 2022).

However the whole lyric is “Yellow is the sun, Green green is the leaf, Brown brown is tree branch, White white is blank paper, Red red is the rose, Blue blue is the sea, Black black is the stone, Violet is lavender”. There are some repetitions as indicated by the lyric. These repetitions have function to construct the children memorize the song in a simple way and later they to be put in their memory storage of short term memory. Commonly, such repetitions underline the point to be discussed further in language learning (kizi Sharipova, 2023; Lawson-Adams et al., 2022). Such lyric can be identified by objects and colours as the main point to be introduced to children as follows.

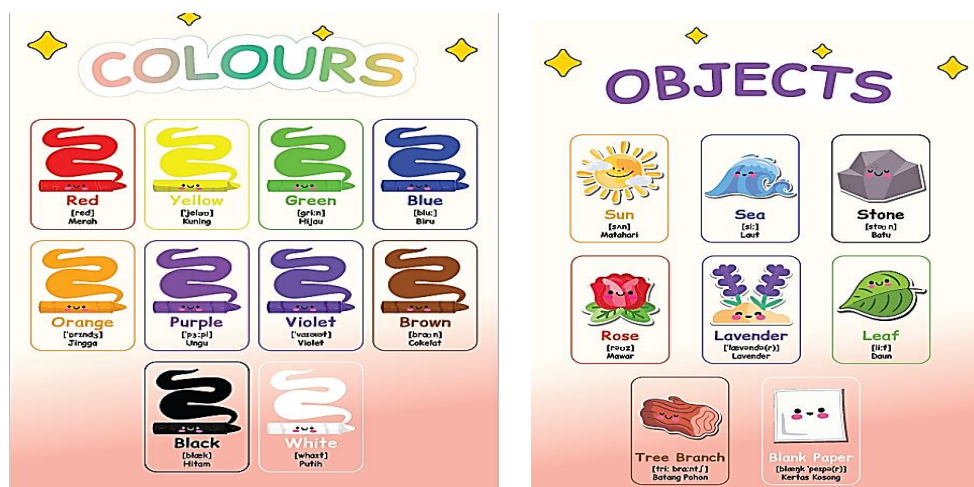


Figure 1. Colour and Objects

Parts of speech is important to be introduced to children as early as possible since it is considered as the basic knowledge of English. These parts of speech frequently to be examined in English grammar of word level, namely noun, pronoun, verb, adverb, adjective, preposition, conjunction, interjection. The lyric contains parts of speech as follows.

Noun	Verb	Adjective
Sun	Is	Yellow
Leaf	Is	Green
Tree, Branch	Is	Brown
Paper	Is	White, blank
Rose	Is	Red
Sea	Is	Blue
Stone	Is	Black
Lavender	Is	Violet

### The Music Sheets

People can identify the tone color of a song through its notation, which allows them to recognize, read, write, and even sing it using symbols like numbers and blocks. Number notation is a system of written song by number (Putra et al., 2019; Yeni & Putra, 2017). However, the song of “Colour the World” is written in block notation with one-octave tone space in order children can sing easily. This notation as a guidance for musician to play that song with any kind of musical instrument. Below is the the song of “Colour the World” in block notation.

**COLOUR THE WORLD**  
Lyrics by Danti & Team  
Songs by Oktavaldi

*Intro 4 bar*

Yellow is the sun Green green is the leaf

Brown brown is tree's branch White white is blank pa per Red red is the rose

blue blue is the sea Black black is the sto ne Vi o let la ven der

Yel low is the sun Green green is the leave

Brown brown is tree branch White white is blank pa per Red red is the rose

blue blue is the sea Black black is the sto ne Vi o let la ven der

der Black black is the sto ne Vi o let la ven der

Figure 2 The Block Notation of Animal Sound

The musical composition, crafted by the composer Octovialdi, exhibits brevity, lasting a mere two minutes. Its succinct duration belies the intricate interplay of harmonies, melodic motifs, and rhythmic nuances that he masterfully wove together. One of the primary considerations when determining the duration of music is the limited attention span of children (Lee & Lin, 2015). The purpose of creating such a composition is to ensure that children can easily follow the song and feel joy while learning language through music (Destiana & Andhiarini, 2020). We applied the musical elements, namely tone notation, harmony, melody, rhythm, measure, scale and tempo in line with children's characters (Wulandari et al., 2021). Tone defines as a sound within regular vibration and tone is written using the symbol of notation; do, re, mi, fa, so, la, si, do. Such notation identifies the two of tone characteristics such as high low and short long.

## CONCLUSION

The song 'Colour the World' is specifically designed as an educational resource for introducing English to early childhood education. The song has been proved to be an engaging educational resource for children because it evokes a sense of joy during the learning process. Such creation of the songs is conducted by implementing successive approximation model. The song is composed by simple sentences of present tense, consisting of noun, verb, adjective, and determiner. Then, the element of music such as lyrics, rhythm and notation are adjusted to the characters of children and the song is written in block notation.

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