Implementation of *17 Agustus* Song through AVA-Based Arrangement in Music Learning for Children at Sukabumi English First

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ABSTRACT

This study aims to implement the Indonesian national song *"17 Agustus"* through an interactive arrangement developed using AVA (Angklung Virtual Assistant) as a digital music learning medium at the *English First (EF)* course center for children aged 6–10 years. The program is designed to foster appreciation for Indonesian traditional music through a modern, audiovisual, and interactive approach. The research employed a Research and Development (R&D) method, which included needs analysis, media design, implementation, and evaluation of participants' responses. The results indicate that the integration of AVA in the *"17 Agustus"* arrangement effectively enhances children's engagement and motivation in understanding rhythm, melody, and harmony through digital angklung performance suited to early-age learning abilities. Furthermore, the use of a national-themed song cultivates a sense of patriotism within a cross-cultural learning environment of a foreign language institution. This study recommends the use of tradition-based audiovisual technology as an innovative alternative for children's music education, particularly in introducing national values through joyful and contextual learning media.

Keywords: *Angklung virtual-assistant; Audiovisual learning; National song; Children's music-education, English First.*

INTRODUCTION

Music learning at Sukabumi English First (EF) Course brings together children from diverse cultural and social backgrounds, creating a learning environment where creative expression, engagement, and contextual understanding are essential. Although EF Course primarily focuses on English language acquisition, integrating cultural elements—especially Indonesian cultural heritage—plays an important role in enriching students' character formation and communicative competence. However, one of the challenges frequently observed in practice is the children's low appreciation and emotional connection toward national and traditional Indonesian songs. Many young learners are far more exposed to global popular media, making patriotic songs such as *"17 Agustus"* feel less relevant and less engaging in their daily experience.

This challenge becomes evident during conventional music-learning sessions, where national songs are typically taught through verbal instruction or simple singing practice. Teachers often find that children respond passively, struggle to follow melodic patterns, or show limited motivation when the learning relies solely

on auditory repetition. These circumstances raise several important pedagogical concerns: How do EF students actually perceive and appreciate national songs when learned through traditional methods? What obstacles hinder their engagement in the absence of audiovisual support? And most importantly, what kind of learning strategy can transform the experience into something meaningful, enjoyable, and culturally resonant for young learners?

To address these challenges, this study implements an AVA-based arrangement (Audio-Visual Assisted Arrangement) of the patriotic song *"17 Agustus"* as an innovative learning medium. This approach integrates synchronized visual cues, color-coded melody guides, rhythmic indicators, and interactive audio layers to support children in understanding musical structure in a playful and intuitive manner. Through this digital-perceptual approach, the learning process aims to stimulate students' curiosity, enhance their emotional connection to the song, and create a more active and engaging classroom atmosphere. Thus, the study seeks to explore how the AVA-assisted arrangement can influence children's enthusiasm, participation, and comprehension of musical concepts, while at the same time strengthening their appreciation for national identity and cultural values.

From a broader perspective, the goal of integrating AVA into the music-learning process at EF Course is not only to examine its practical effectiveness but also to understand the phenomenological experiences of children as they interact with audiovisual media. This includes observing how they interpret the learning moments, how engagement emerges, and how collective excitement or pride develops as they sing or follow the visual rhythm of *"17 Agustus"*. Ultimately, this research aims to describe children's appreciation of the national song, identify the limitations of traditional teaching methods, investigate the pedagogical impact of AVA-based media, and understand the lived learning experiences of the students as they navigate this multimedia-supported musical environment.

Several previous studies have highlighted the use of technology-based learning media as an innovative approach to improving efficiency and effectiveness in traditional music education, particularly in the context of angklung performance. One such study was conducted by Julia, Putri, and Sunarya [2], who explored the use of the Synthesia application as a learning medium to facilitate students in playing angklung. Their findings indicate that audiovisual- based media can effectively support learners in understanding pitch and rhythm patterns without relying heavily on the ability to read conventional musical notation. Despite its usefulness, the Synthesia application is fundamentally designed for piano instruments rather than for angklung. This creates several limitations in the context of traditional music education, particularly in terms of cultural contextualization and the collaborative characteristics of angklung performance, which requires coordinated interaction

among multiple players. Addressing these shortcomings, this study introduces AVA (Angklung Virtual Assistant) as an interactive learning medium specifically designed to support angklung instruction through a more contextual and participatory audiovisual approach.

The most essential difference lies in the interface design and its system of pitch representation. Synthesia is developed exclusively for piano, meaning that its visual structure aligns with piano keys, not with the pitch system or numbering conventions used in angklung. As a result, for certain songs, Synthesia's visual display shows empty bars or rests that do not correspond to the actual needs of angklung playing. This discrepancy can lead to confusion, especially for elementary-level learners, as they may struggle to synchronize between visual notation and the sound produced.

In contrast, the Angklung Virtual Assistant (AVA) is an original development by the Angklung Media team, created with careful attention to the unique characteristics and instructional needs of angklung education. AVA integrates visual design, number-based pitch representation, and user-friendly interaction to provide guidance that is more concrete, intuitive, and culturally relevant. This allows both teachers and young learners to follow the instructions easily without requiring advanced musical skills.

Thus, AVA offers a significant innovation compared to Synthesia because it is purposefully developed to support traditional angklung learning through audiovisual technology. While Synthesia merely displays visualized notation and audio playback, AVA functions as an interactive virtual assistant that helps learners understand playing techniques, rhythm coordination, and notation comprehensively. Therefore, AVA can be classified as an interactive audiovisual-based digital angklung learning medium.

METHODS

This study employed a Qualitative Exploratory Case Study Design focusing on the implementation of the AVA-based arrangement of the "17 Agustus" national song. This design was chosen to achieve an in-depth understanding of the learning experiences, engagement levels, and the overall impact of the new audiovisual medium on children's appreciation for national music within the specific context of a foreign language institution. The study's focus is on describing the pedagogical process and the qualitative outcomes of the intervention, rather than quantifying generalizable results.

Subjects of Research

The subjects of this research were children aged 6–10 years enrolled in the music learning program at the English First (EF) Course Center in Sukabumi. This age group and institution were specifically targeted because they represent the

population struggling with low appreciation for national songs and operate within a cross-cultural learning environment where such an intervention is highly relevant. The specific number of participants involved in the observation and assessment of the intervention will be determined by classroom availability and ethical consent.

The distribution of participants involved four study programs to obtain a diversity of perspectives and comprehensive learning experiences, namely: Christian Religious Education (PAK) with 2 participants, Christian Early Childhood Education (PKAUD) with 3 participants, Christian Psychology Education (PSIKRI) with 3 participants, and Church Music Education (PMG) with 3 participants. This composition reflects proportional representation between study programs within the FKIP IAKN Toraja environment and provides an opportunity for researchers to capture the variety of views, meanings, and reflections of students on learning experiences through the Poster Comment model based on Longko' local wisdom.

Instruments

A combination of qualitative instruments was used to capture data regarding the intervention's process and outcomes:

1. Observation Guide/Checklist: Developed to systematically record children's non-verbal and behavioral responses during the AVA-assisted learning sessions. Key observation areas included: (a) Engagement Level: Attention span, sustained focus, and active participation. (b) Musical Comprehension: Ability to follow rhythmic and melodic cues presented by AVA. (c) Emotional Response: Expressions of enjoyment, enthusiasm, and focus while performing the song.
2. Semi-Structured Interview Guide: Used to conduct interviews with the teachers regarding the effectiveness of AVA as a teaching tool, its impact on classroom management, and their perception of the children's motivation. Brief, structured feedback sessions or focus group discussions with the children (where appropriate) were used to gauge their subjective experience of learning through AVA.
3. Documentation: Collected in the form of the AVA-based arrangement file, video recordings of the learning sessions, and teachers' reflective journals on the process.

Data Collection and Analysis

Data collection was executed primarily through two stages of fieldwork: (1) Intervention Implementation: The AVA-based arrangement of the "17 Agustus" song was used by the teachers as the core medium for music instruction over a specified period. (2) Data Gathering during and Post-Intervention: Observation was conducted throughout the learning sessions to capture the dynamic interactions between the children and the AVA medium. Semi-structured interviews were conducted with the teachers post-implementation to gather their professional

assessment of the medium's impact. Documentation (video and teacher notes) was collected to provide contextual evidence.

The data were analyzed using Qualitative Descriptive Analysis with a focus on synthesizing the observations, interview narratives, and documented evidence. The process involved: (1) Data Reduction: Filtering the observation and interview transcripts to focus only on themes relevant to children's engagement, motivation, musical comprehension, and appreciation for the national song. (2) Thematic Categorization: Grouping the reduced data into emergent themes (e.g., "Impact of Audiovisual Cues on Rhythm," "Children's Expressed Enthusiasm," "Teacher Perception of AVA's Utility"). (3) Interpretation and Synthesis: Interpreting the categorized themes to describe the overall effectiveness of the AVA-based arrangement. The analysis specifically aimed to describe the children's phenomenological experiences—how engagement and appreciation developed—and to identify the pedagogical advantages of AVA over traditional methods in fostering cultural connection within the EF environment.

The final conclusions were drawn by synthesizing the observed effectiveness of the AVA medium with the qualitative descriptions of the children's and teachers' lived experiences.

RESULTS AND DISCUSSION

The implementation of the Angklung Virtual Assistant (AVA) was carried out during the music education sessions for students of the Primary School Teacher Education (PGSD) Program at STKIP Bina Mutiara Sukabumi. The primary objective of using this media was to facilitate students' understanding of ensemble angklung performance through an interactive audiovisual approach. The learning sessions were conducted using essential multimedia equipment, including a laptop, projector, and speaker system.

Figure 1. Pheriperal needs for using AVA (Laptop, Speaker, Proyektor, dan LCD Screen)

The AVA visual interface was projected onto a large screen, allowing each angklung player to easily follow the performance instructions displayed. The interface features horizontal color-coded bars moving from right to left, indicating the specific angklung numbers each player must play. When the colored bar aligns with the numbered column on the left side of the screen, the player is prompted to shake the corresponding angklung to produce the correct pitch.

This design provides significant advantages for learners without prior musical background. All performance instructions are converted into intuitive audiovisual cues, making them easy to follow and reducing the cognitive load associated with traditional notation reading. As a result, the AVA system supports a more accessible, engaging, and efficient learning experience for angklung ensemble practice.

Implementation Process of the Learning Activities

1. Orientation Stage

   In this initial stage, the instructor introduced the concept and operational mechanism of AVA. Students were given the opportunity to observe the visual interface, which consists of color-coded bars, angklung numbering, and directional movement indicators. The instructor also explained how the AVA system automatically synchronizes pitch, rhythm, and visual motion to guide the ensemble performance.

   As illustrated in the accompanying figure, the first column displays the angklung numbering system ranging from 0 to 30, representing a total of 31 melodic angklung units used in the learning activity. The second column contains the names of the corresponding pitches, where the first pitch displayed is F-sharp (Fis), known in numbered notation as fi in the second octave, as shown in the "Octave" column.

Nomor	Nada	Notasi	Oktaf
0	F#	Fi	F#2
1	G	Sol	G2
2	G#	Sil	G#2
3	A	La	A2
4	A#	Li	A#2
5	B	Si	B2
6	C	Do	C3
7	C#	Di	C#3
8	D	Re	D3
9	D#	Ri	D#3
10	E	Mi	E3
11	F	Fa	F3
12	F#	Fi	F#3
13	G	Sol	G3
14	G#	Sil	G#3
15	A	La	A3
16	A#	Li	A#3
17	B	Si	
18	C	Do	C4
19	C#	Di	C#4
20	D	Re	D4
21	D#	Ri	D#4
22	E	Mi	E4
23	F	Fa	F4
24	F#	Fi	F#4
25	G	Sol	G4
26	G#	Sil	G#4
27	A	La	A4
28	A#	Li	A#4
29	B	Si	B4
30	C	Do	C5

Figure 2. Anglung Number wut the name of Notation and Angklung Melody (www.angklungmedia.com)

2. Rehersal Stage

In this introductory phase, the instructor introduced the concept and operational function of the AVA system to the children. Learners were given the opportunity to observe the visual interface, which consists of color-coded bars, angklung numbering, and directional movement indicators. The instructor also explained how AVA automatically synchronizes pitch, rhythm, and visual cues to guide the music-learning process in an interactive manner.

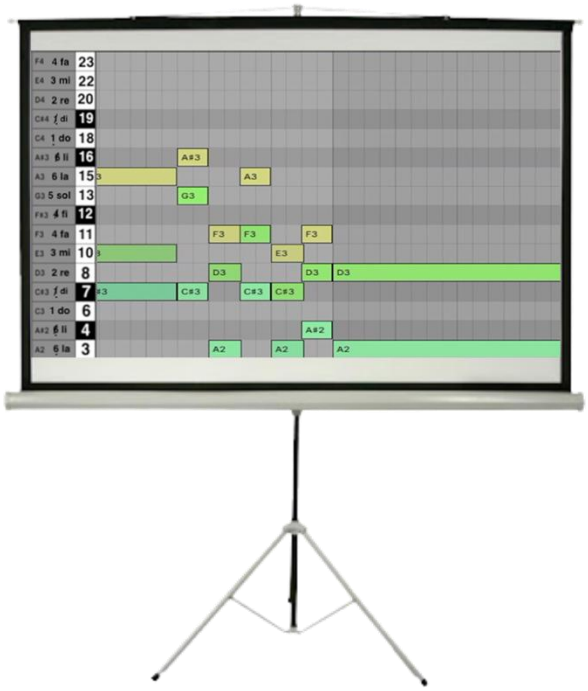

Figure 3. AVA on the LCD Screen

As illustrated in the accompanying figure, the first column displays the angklung numbering system ranging from 0 to 30, representing the total number of melodic angklung units used in the learning session. The second column contains the names of the corresponding pitches, with the first pitch displayed being F-sharp (Fis), known in numbered notation as *fi* in the second octave, as shown in the "Octave" column. This visual structure helps EF Course learners—who often have varied levels of musical exposure—gain a clearer understanding of pitch mapping before engaging in hands-on practice.

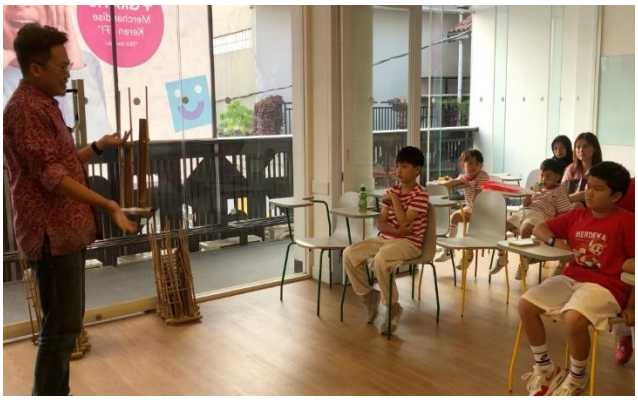

Figure 4. Proper Technique for Holding the Angklung with Children at Sukabumi EF Course

3. Reflection Stage

After the practice session, a reflective discussion was conducted to identify the challenges and advantages experienced during the use of AVA. The children

expressed that the media made the learning process more enjoyable, easier to follow, and less intimidating, even without the presence of a traditional angklung instructor.

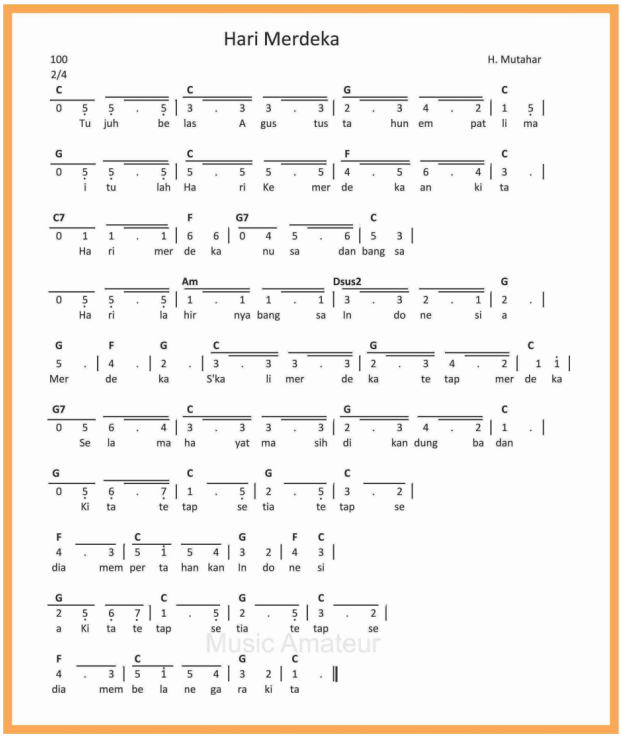

Figure 5. 17 Agustus 1945 (hari Merdeka) Score (www.seputarmusikal.com/2017/12/hari-merdeka.html)

Empirical Findings: Enhanced Engagement and Collaborative Learning Outcomes

Based on the implementation results, it can be concluded that the use of AVA aligns with multimedia learning theory [6], which states that learning becomes more effective when information is presented through two primary sensory channels—visual and auditory. In the context of AVA, learners at EF Course acquired musical understanding through visual cues (color-coded bars and their movements) and auditory input (pitch and rhythmic patterns). Furthermore, AVA applies the principles of modality and temporal contiguity [7], in which audio and visual information are presented simultaneously to maximize cognitive integration. This enables learners to more easily comprehend the synchronization between pitch, rhythm, and angklung-playing gestures.

From a pedagogical standpoint, AVA is consistent with the principles of contextual learning [8], as it connects the learning process with real-life experiences—specifically, collaborative music-making. Through the use of this interactive media, learners do not only acquire musical concepts but also develop social skills, coordination, and an appreciation for Indonesian traditional culture.

Overall, the implementation of AVA demonstrates that audiovisual media grounded in local cultural values can serve as an effective solution for teachers who face limitations in time, musical expertise, or instructional resources. Thus, AVA holds potential for further development as a digital learning model rooted in cultural heritage while remaining relevant to the contemporary landscape of educational technology.

The audiovisual-based angklung learning sessions elicited highly positive responses from EF Course children. In practice, even with minimal initial instruction, students were able to understand the flow of the performance and immediately engage in playing the angklung. This indicates that a visually and auditorily supported approach is highly effective in facilitating the comprehension of musical concepts and foundational performance skills. Each session ended with collective enthusiasm, marked by cheers and excitement from the students. This phenomenon suggests the emergence of emotional attachment and a sense of cultural connectedness through traditional music-making. Over time, the learning environment became increasingly lively, as students grew more immersed in the collaborative angklung-playing experience.

Interestingly, many students associated this learning experience with the enjoyment of playing digital rhythm games, particularly those similar to Guitar Hero on the PlayStation platform. However, unlike digital games played individually or competitively, angklung learning requires real-time teamwork and harmonious coordination. Every student plays a crucial role in producing a complete musical performance; if one pitch is missing, the ensemble becomes incomplete—signifying a lapse in focus or skill. This fosters the understanding that in audiovisual-assisted angklung learning, success is not determined solely by individual ability but by collective synchronization and shared concentration—reflecting the essence of collaborative and culture-based education.

Based on the observations and in-depth interviews conducted throughout the implementation, several meaningful phenomenological insights emerged regarding the students' subjective experiences. The findings indicate a noticeable shift from passive and disengaged participation toward a more dynamic, enjoyable, and collaborative learning atmosphere. The core of the students' experience lies in the emotional engagement and sense of togetherness that emerges when playing angklung collectively. Many learners described the activity as similar to playing a rhythm game together, reinforcing the relevance of audiovisual media as a bridge between children's modern digital habits and local cultural heritage.

CONCLUSION

This study demonstrates that audiovisual-based angklung learning represents a relevant and transformative innovation for enhancing children's appreciation of

traditional arts amid the rapid currents of modernization and cultural diversity within educational environments. Through a phenomenological approach, it was revealed that visual, auditory, and collaborative learning experiences foster emotional engagement, collective enthusiasm, and a stronger sense of cultural awareness among learners. These findings highlight that arts education—particularly within the context of contemporary learning frameworks—serves not only to develop students' artistic skills but also to cultivate character, strengthen local identity, and nurture a sense of belonging to cultural heritage. By creatively and contextually integrating audiovisual media, instructors can create an engaging learning atmosphere that stimulates motivation and encourages active participation from all students, including those in multicultural learning settings such as EF Course. The success of this method opens significant opportunities for the development of more adaptive and culturally grounded arts education models that remain relevant to technological advancements. It is hoped that the results of this study may serve as a valuable reference for educators, curriculum developers, and researchers in the fields of arts and educational technology, inspiring further exploration of digital media collaboration as a pathway for preserving traditional cultural arts through education.

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