



IMPROVEMENT IN ADOLESCENTS' LISTENING SKILLS, SPEECH ARTICULATION, AND MUSICAL COLLABORATION THROUGH THE HARMONI MUSIC AND VOCAL TRAINING MODEL

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Article info	ABSTRACT
<p>Corresponding Author:</p> <p>Yoyok Febrijanto yoyokfeb@gmail.com STIKES RS Baptis Kediri</p>	<p>This community service article reports the implementation and evaluation of the HARMONI music and vocal training model for adolescents at Gereja Baptis Indonesia (GBI) Sahabat Kediri. The program was designed to address the need for structured youth regeneration in church music ministry while strengthening listening skills and speech articulation through integrated musical learning. A one-group pre-test post-test design was used with 20 adolescents aged 13-17 years. The intervention consisted of participatory training in guitar, drum, keyboard, and vocal practice based on seven HARMONI stages: Hearing, Articulation, Rhythm, Music, Oral, Notation, and Integration. Data were collected using a 15-item questionnaire with a 1-4 scale, performance observation, and semi-structured interviews. The total score increased from a pre-test mean of 35.55 (SD = 2.42) to a post-test mean of 50.85 (SD = 1.90), with a mean gain of 15.30 points or 43.4%. Improvement was observed in all domains: listening skills (35.5%), speech/vocal articulation (39.7%), and musical skills, collaboration, and practice discipline (59.8%). Interview findings indicated that participants became more able to follow tempo, pronounce lyrics clearly, regulate breathing, understand simple song patterns, and participate more confidently in group performance. The findings suggest that HARMONI is a feasible community-based model for combining music skill development, auditory training, vocal articulation, and youth character formation. Continued mentoring, small-group practice, and peer support are recommended to sustain the program outcomes.</p> <p>Keywords: <i>HARMONI model; music training; vocal training; listening skills; speech articulation; adolescents; community service</i></p>
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INTRODUCTION

Music-based learning has been widely discussed as a meaningful medium for developing cognitive, affective, psychomotor, and social capacities in adolescents. Playing instruments and singing require learners to listen, imitate, coordinate movement, regulate tempo, respond to cues, and communicate with others. These processes are closely related to auditory discrimination, rhythm perception, attention, working memory, and verbal expression. Recent reviews indicate that structured music learning can support auditory and

linguistic processing, although the extent of far-transfer effects should be interpreted cautiously and in relation to program quality, participant characteristics, and learning context (Neves et al., 2022; Schellenberg & Lima, 2024).

In the context of church-based youth development, musical ability is not only an artistic competence but also a functional skill for ministry continuity. Adolescents involved in church music services need to listen to instructions, follow tempo, read simple chord symbols, control vocal intonation, pronounce lyrics clearly, and coordinate with other players. Therefore, music and vocal training can be positioned as a community education strategy that simultaneously improves musical performance, oral communication, self-confidence, discipline, and teamwork. Ensemble-based music participation has been reported to strengthen adolescents' perception of life skills and collaborative learning (Bussu & Mangiarulo, 2024), while educational music activities may contribute to soft skills such as communication, coordination, and cooperation (Diz-Otero et al., 2023).

GBI Sahabat Kediri has a promising group of adolescents and young adults who can be prepared as future music ministry cadres. However, the partner identified several practical problems: limited mastery of basic instruments, unstructured vocal practice, insufficient training in listening to tempo and musical cues, unclear articulation during singing, and the absence of an integrated model that connects musical skill, auditory sensitivity, and speech articulation. The transition of older youth to higher education or work outside the city also creates a need to prepare younger adolescents for sustainable ministry participation.

To respond to this need, the community service team implemented the HARMONI model, an integrated training framework consisting of Hearing, Articulation, Rhythm, Music, Oral, Notation, and Integration. The model was designed to connect auditory exercises, vocal articulation, rhythmic practice, instrument learning, oral expression, basic notation, and group performance in one structured sequence. This article aims to describe the implementation of the HARMONI model and evaluate its outcomes on adolescents' listening skills, speech/vocal articulation, and musical collaboration at GBI Sahabat Kediri.

METHOD

This community service program used a descriptive evaluative approach with a one-group pre-test post-test design. This design was considered appropriate for a training-based community intervention because it allows direct comparison of participants' initial and final conditions after receiving the program (Stratton, 2019). The activity was conducted at Gereja Baptis Indonesia Sahabat Kediri over a one-month period. The participants were 20 adolescents aged 13-17 years who were interested in music and vocal ministry. The group included adolescents assigned to guitar, drum, keyboard, and vocal practice. All participant data were reported anonymously using respondent codes. The intervention was delivered

through participatory music and vocal training. The seven stages of HARMONI were implemented as follows: Hearing trained participants to recognize sounds, tempo, and musical cues; Articulation focused on vowel-consonant production, lyric pronunciation, and breath control; Rhythm developed pulse, beat stability, and response to patterns; Music provided instrument and vocal practice in small groups; Oral encouraged verbal response, confidence, and group communication; Notation introduced basic chords, song structure, and simple rhythmic symbols; and Integration combined all skills through ensemble rehearsal and a mini performance. Each session combined brief explanation, demonstration, individual or small-group practice, feedback, reflection, and simple performance assessment.

Quantitative data were collected using a 15-item pre-test and post-test questionnaire with a 1-4 response scale. Items 1-5 measured listening skills, items 6-10 measured speech/vocal articulation, and items 11-15 measured musical skills, collaboration, and practice discipline. The minimum total score was 15 and the maximum was 60. Qualitative data were collected through semi-structured interviews exploring participants' initial conditions, experiences in HARMONI stages, perceived changes, obstacles, and recommendations for continuation.

The quantitative data were analyzed descriptively by calculating mean, standard deviation, minimum, maximum, gain score, and percentage improvement. Interview data were summarized thematically to explain the quantitative changes and identify practical implications for program continuation.

RESULTS AND DISCUSSION

Finding

The evaluation involved 20 adolescents who completed both pre-test and post-test measurements. The respondents were evenly distributed by age from 13 to 17 years, and the training groups represented guitar, drum, keyboard, and vocal sections as following figure 1.





Figure 1. Situation of music and vocal practices in GBI Sahabat Kediri

Table 1. Participant characteristics

Characteristic	n	%
Age 13 years	4	20.0
Age 14 years	4	20.0
Age 15 years	4	20.0
Age 16 years	4	20.0
Age 17 years	4	20.0
Male	10	50.0
Female	10	50.0
Guitar section	5	25.0
Drum section	4	20.0
Keyboard section	5	25.0
Vocal section	6	30.0

The total score increased from a pre-test mean of 35.55 to a post-test mean of 50.85. The mean gain was 15.30 points, equal to an average improvement of 43.4%. All participants demonstrated positive score changes after the intervention.

Table 2. Descriptive statistics of total pre-test and post-test scores

Measure	Pre-test	Post-test	Gain
N	20	20	20
Mean	35.55	50.85	15.30
SD	2.42	1.90	1.81
Minimum	31	47	13
Maximum	40	55	19

Domain analysis showed improvement in all three assessed aspects. The largest increase was found in musical skills, collaboration, and practice discipline, followed by speech/vocal articulation and listening skills.

Table 3. Comparison of mean scores by assessment domain

Domain	Items	Max. score	Pre-test Mean +/- SD	Post-test Mean +/- SD	Mean gain	Improvement
Listening skills	1-5	20	12.55 +/- 1.36	16.90 +/- 1.29	4.35	35.5%
Speech/vocal articulation	6-10	20	12.40 +/- 1.27	17.20 +/- 1.11	4.80	39.7%
Musical skills, collaboration, and discipline	11-15	20	10.60 +/- 1.31	16.75 +/- 1.16	6.15	59.8%
Total score	1-15	60	35.55 +/- 2.42	50.85 +/- 1.90	15.30	43.4%

The semi-structured interviews supported the quantitative findings. Participants reported that rhythm counting helped them enter songs more accurately, vocal articulation exercises made lyrics clearer, and group practice increased courage to perform with peers. The main challenges were differences in initial ability, inconsistent practice schedules, and the need

Table 4. Summary of interview themes

Theme	Main finding	Program implication
Initial condition	Some participants were unsure about tempo, chords, breath control, and confidence in performing.	Basic training should precede ensemble practice.
Hearing and rhythm	Listening to examples and counting beats helped participants follow tempo and cues.	Hearing and rhythm drills should open each session.
Articulation and vocal practice	Participants perceived clearer lyric pronunciation and better breath control.	Short articulation drills can become a routine activity.
Instrument mastery	Participants began to understand basic chords, song sections, and entry points.	Instrument-specific practice sheets are needed.
Confidence and collaboration	Group rehearsal encouraged participants to try, respond, and perform.	Mini performances can be used as evaluation and motivation.
Follow-up needs	Participants need routine schedules and peer mentors.	The partner should create regular small-group practice.

Discussion

The findings indicate that the HARMONI model had a positive descriptive effect on participants' listening skills, speech/vocal articulation, and musical collaboration. The 43.4% increase in total score suggests that structured and integrated music-vocal training can

address both technical and communicative needs in a church-based adolescent community. The result is consistent with research showing that music learning can support auditory and linguistic processing when it involves repeated listening, rhythm imitation, vocal production, and attention to sound patterns (Neves et al., 2022; Sepúlveda-Durán et al., 2024).

The improvement in listening skills can be explained by the Hearing and Rhythm stages. Participants practiced distinguishing tempo, identifying pitch movement, imitating rhythmic patterns, and responding to musical instructions. These activities required focused auditory attention and response regulation. Recent work on auditory and cognitive processing emphasizes that music training engages shared networks for sound, speech, and working memory (Mertel et al., 2024). Moreover, prosodic discrimination has been linked to the ability to interpret vocal information, which is relevant to both musical listening and oral communication (Vigl et al., 2024).

The increase in speech/vocal articulation reflects the role of the Articulation and Oral stages. Through vowel-consonant exercises, lyric pronunciation, breath control, and guided oral responses, participants practiced producing clearer verbal output. Similar evidence has been reported in language and music studies showing that singing-based practice can facilitate pronunciation learning because it combines melody, rhythm, repetition, and vocal imitation (Zhang et al., 2023). In the HARMONI program, vocal exercises were not separated from musical practice; instead, they were embedded in songs and group rehearsal, making articulation training more natural and engaging for adolescents.

The largest improvement was found in musical skills, collaboration, and discipline. This is reasonable because the intervention directly emphasized guitar, drum, keyboard, and vocal practice. Participants received demonstrations, practiced in small groups, and combined their skills in ensemble activities. This pattern aligns with findings that playing music together can strengthen adolescents' self-perception of life skills, including teamwork, social awareness, and self-regulation (Bussu & Mangiarulo, 2024). It also supports the view that music education can contribute to soft skills such as cooperation, communication, coordination, and discipline when it is implemented through active and collaborative learning (Diz-Otero et al., 2023; Zhang, 2024).

Nevertheless, the findings should be interpreted with caution. The program used a one-group pre-test post-test design without a comparison group, so the results cannot establish causal effects with the same strength as randomized or controlled studies. The sample was small and limited to one church community, and the measurement relied partly on self-perception. This caution is important because recent reviews emphasize that the effects of music training on nonmusical abilities can be influenced by prior ability, motivation, family background, and the learning environment (Schellenberg & Lima, 2024).

Therefore, future implementation should include longer follow-up, structured performance rubrics, attendance tracking, and, if possible, comparison with another youth group.

CONCLUSION

The HARMONI music and vocal training model improved adolescents' perceived competence in listening skills, speech/vocal articulation, and musical collaboration at GBI Sahabat Kediri. The total mean score increased from 35.55 to 50.85, with a mean gain of 15.30 points or 43.4%. The greatest improvement occurred in musical skills, collaboration, and practice discipline, followed by speech/vocal articulation and listening skills. Interview findings further showed that participants became more confident in following tempo, pronouncing lyrics, regulating breath, understanding simple song patterns, and performing with peers. The model is feasible for community service programs because it integrates musical, auditory, vocal, oral, notational, and collaborative learning in a practical sequence. For sustainability, the partner is advised to establish routine small-group practice, appoint peer mentors, use a simple HARMONI module, and develop follow-up training in music arrangement, worship performance, and public speaking through music.

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