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### Development of Teaching Materials for Duet Violin Performances of Indonesian National Songs for Beginners

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#### ABSTRACT

Teaching materials for violin duets in music courses typically utilise resources that follow a "sage on the stage" approach, wherein the teacher acts as the primary source of knowledge and students become passive listeners (teacher-centred), thereby limiting active student engagement. This study analyses the development of teaching materials based on Indonesian national songs that are familiar to students. This research integrates a "guide on the side" approach with Indonesian national songs as the teaching material for violin duet instruction. The Design-Based Research (DBR) method was employed in the development of these materials, using a qualitative approach. The outcomes of this research consist of ten Indonesian national songs arranged in a violin duet format, tailored to the competencies required for beginner violin instruction, allowing students to take the lead in the duet alongside the teacher. This role reversal provides students with a more active role (student-centred) in achieving learning objectives in terms of understanding, feeling, and awareness. This research is expected to contribute to the development of a more interactive approach to violin instruction that actively engages students. By using Indonesian national songs as the learning content, students can develop their violin skills while appreciating the richness of Indonesian music. The use of duet teaching materials is anticipated to strengthen collaboration between students and teachers, as well as enhance motivation in learning to play the violin.

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#### 1. INTRODUCTION

The use of teaching materials in the learning process is a vital factor in enhancing the quality of learning outcomes, which can significantly influence student motivation (Suardi, 2018). Teaching materials are essential tools that must be thoughtfully prepared and developed. When presenting teaching materials, teachers should aim to meet certain ideal criteria, including: 1) alignment of content with the needs, age, and level of students; 2) engagement for students; 3) clarity and ease of understanding; 4) systematic organisation; and 5) the use of clear styles and vocabulary (Yaumi, 2016). Furthermore, teaching materials should reflect the background and context that are meaningful to learners. This makes the presentation of materials a key focus for educators, particularly in music education. As Campbell notes (as cited in Agung, 2011), during the music learning process, teachers must tailor their materials to fit the cultural context of the school environment in which they teach.

The violin is closely related to Western culture, including its Eurocentric approach to education (Volk, 1993). Most violin teachers in Indonesia use teaching materials from publications by the ABRSM (Associated Board of the Royal Schools of Music), such as etudes by Wohlfahrt, Kreutzer, Caprice, and others that originate from Western countries. While the use of Western teaching materials as a cultural selection is important, there exists a gap in their implementation in Indonesia. Another issue often encountered in violin instruction, whether in courses or private lessons, is the "sage on the stage" approach, where the teacher assumes a central role, while students remain passive learners (King, 201) (Zhukov & Sætre, 2021). This method is ineffective for the 21st century, when individuals are expected to think independently, pose questions, and solve complex problems. The teacher's dominant role can create an unfriendly impression and an intimidating atmosphere due to the social gaps related to prestige, privilege, and power between teachers and students (Long et al., 2015). Such anxiety can disrupt the students' learning process (Mulkholil, 2018) and may also impact their motivation to learn the instrument.

This fact highlights the importance of violin instruction being tailored to the background and environment in which students learn (Campbell in Agung, 2011; Napitulu & Arif, 1997). This learning process involves the integration of another culture through our own, thereby addressing the cultural gap students may have with the teaching materials. This study selects Indonesian national songs as the material for the developed curriculum. These national songs are often played by students at school during ceremonies, national commemorations, and other activities, making them familiar with the melodies. This familiarity facilitates the learning process, as students can easily implement the melodies, they have in mind through motor skills in finger positioning and bowing on the violin.

To address student anxiety and lack of motivation, a student-centred approach guided by the teacher is needed. The "guide on the side" approach involves greater mentorship and facilitation by the teacher, providing numerous musical, social, and personal benefits for students (Zhukov & Sætre, 2021). This approach positions students at the centre of the learning process, with guidance from the teacher. The aim of the "guide on the side" approach is to encourage students to actively participate in the learning process. This method can be implemented in violin instruction through duet playing in both course settings and private lessons.

The "guide on the side" approach in violin instruction can be effectively implemented through duet playing between the teacher and the student. This method actively engages

#### 1.1. Theoretical Foundation

Teaching materials are the learning content that is systematically organised based on the principles of learning used by teachers and students during the educational process (Magdalena et al., 2020). These materials encompass content, methods, limitations, and assessments, designed in a coherent manner based on the expected outcomes, which involve achieving competencies and sub-competencies, along with their complexities, according to Widodo & Jasmadi (in Lestari, 2013). The development of teaching materials begins with an assessment of needs, which considers the curriculum, learning resources, selection and definition of teaching materials, and the actual crafting of these resources, as outlined by Prastowo (2015). Furthermore, Sardjati (2012) describes the procedures for developing teaching materials, which involve stages of analysis, design, development, evaluation, and revision, followed by feedback. This is consistent with the model of Design-Based Research (DBR) methodology proposed by Amiel & Reeves (2008).

A national song is characterised as a piece in the Indonesian language that articulates themes pertinent to the Indonesian nation's experiences, especially during the fight for independence. The lyrics capture the historical backdrop preceding and following the independence struggle, embodying the ideals of patriotism and nationalism. Through its poetic expression, the song plays a significant role in uplifting the spirit of the people in their quest for and preservation of independence (Witantina, 2020).

Individual learning is widely recognised as a vital aspect of both instrumental and vocal training, given its intensive and intricate nature, which contributes to a "serious" environment in music education (Carey et al., 2013). It can be asserted that individual instruction in music, particularly in music courses and private lessons, corresponds with the concept of "sage on the stage." This term describes a pedagogical approach where the central figure—be it a professor or instructor holds knowledge and conveys it to students, who primarily engage in memorisation and reproduction of information during assessments (Zhukov & Sætre, 2021). In the context of music education, the "sage on the stage" approach emphasises the role of the music teacher as an expert who provides direct instruction to students. In this approach, the music teacher typically leads the class or group, often utilising a musical instrument to deliver demonstrations, lectures, or instructions. This method often involves the teacher playing an instrument, showcasing specific techniques, explaining music theory, or singing examples for the students. The teacher assumes a dominant role in imparting musical knowledge, while students take on a passive role, observing and noting what the teacher presents.

An approach that can be considered the opposite of "sage on the stage" is the "guide on the side," which can be effectively implemented in individual violin instruction at music courses and private lessons. The "guide on the side" approach emphasises greater involvement in mentoring and facilitating, thereby providing numerous musical, social, and personal benefits for students (Zhukov & Sætre, 2021). Fundamentally, this approach is rooted in constructivism, where learners (students) construct their knowledge based on interactions with their environment, including interactions with others (Clark et al., 2008). The "guide on the side" approach aims to engage students actively in the learning process. It positions students as central figures in their educational experience, supported by guidance from the teacher. From this perspective, it can be concluded that "guide on the side" represents a pedagogical approach wherein the teacher's role is to mentor and facilitate, while students take on a central role in the learning process.

#### 2. METHODS

This study is titled "Development of Teaching materials for Duet Violin Performances of Indonesian National Songs for Beginners." The research employs the Design-Based Research (DBR) methodology through a qualitative approach. According to Wang and Hannafin (2005), DBR is a systematic yet flexible methodology aimed at enhancing educational practices through iterative analysis, design, development, and implementation, grounded in collaboration between researchers and practitioners within real-world settings and guided by contextually sensitive design principles and theories. Plomp, as cited in Bakker (2018), asserts that Educational Design Research constitutes a systematic study focused on designing, developing, and evaluating educational interventions—such as programmes, strategies, and teaching materials—as solutions to identified problems, while also advancing knowledge about the characteristics of interventions and the processes involved in designing and developing them. The development of teaching materials for duet violin performances is based on the DBR model proposed by Reeves, as outlined below:

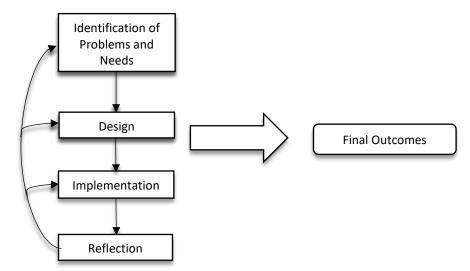


Figure 1. Design-Based Research Model for Developing Teaching materials for Duet Violin Performances of Indonesian National Songs for Beginners.

The following outlines the four stages of the action model from the study titled "Development of Educational Materials for Duet Violin Performances of Indonesian National Songs for Beginners":

Identification of Problems and Needs Analysis

This stage occurs at the commencement of the research. Identification focuses on the issues and needs related to educational materials within several music course institutions and private lessons. Once the problems and needs are identified, a concept is developed to address these issues.

#### Design

The second stage involves the design process of the research, which includes determining the subjects of the study, the location, the timing, selecting Indonesian national songs appropriate for beginners, and creating educational materials arranged in a duet format for the violin learning process.

Implementation

In this stage, the developed and designed educational materials are utilised or implemented with the research subjects.

Reflection

Following the repeated cycles of testing and refining solutions in the practice of developing educational materials for duet violin performances of Indonesian national songs for beginners, reflection is conducted to derive "design principles" and enhance the implementation of solutions. Further refinement of solutions, methods, and design principles is then undertaken. Data triangulation between the researcher and the research subjects (teachers and students) is performed to compare information from each data collection technique, ensuring that the results are relevant and consistent across all areas.

#### 3. FINDINGS AND DISCUSSION

In this study, the initial step in conducting research using the Design-Based Research (DBR) methodology involves identifying and analysing the issues present in the field.

#### 3.1. Problem Identification and Analysis

3.1.1. Identification.

The individual violin instruction process in music institutions or private lessons was assessed through interviews, revealing several challenges:

- Unfamiliar Melodies
  - Students often encounter foreign melodies in teaching materials, leading to disengagement.
- Lack of Motivation
  - Students demonstrate a lack of motivation in practising the violin.
- Technical Difficulties
  - Students face challenges with violin techniques such as fingering and bowing.
- **Teacher-Student Dynamics** 
  - Students often feel uncomfortable, anxious, and tense during lessons due to the authoritative nature of the teacher's role.

#### 3.1.2. Analysis

A literature review and self-reflection were conducted to find a solution. A recurring reflection indicated that the repeated use of unfamiliar melodies with students led to boredom and a lack of enthusiasm for playing the violin, causing students to avoid intensive practice. If left unaddressed, this issue could impact the accuracy and clarity of sound, rooted in inadequate fingering and bowing practice, ultimately hindering the student's progress. This fact highlights the importance of teaching materials as a motivating factor for students to engage with and understand the content (Mahardika, 2019). Therefore, it is essential to have teaching materials that can inspire students during the violin learning process.

The role of the teacher is crucial in guiding and facilitating students to ensure that the learning process for the violin proceeds smoothly, allowing students to feel comfortable. Teaching materials based on national songs feature simple melodies and musical forms, making them more familiar and easier for students to learn.

#### 3.2. Concepts

Napitulu and Arif (1997) assert that effective teaching materials must reflect the students' background and lived experiences. This indicates that the presentation of teaching materials must be carefully considered in terms of effectiveness, relevance, systematic organisation, and context. The idea of developing teaching materials based on Indonesian national songs for violin duets is inspired by the work of Agung (2011) and Rizkya (2021), who used Indonesian regional and children's songs as the basis for their teaching materials. Their research revealed that Indonesian songs hold significant musical potential for violin instruction. From a musical perspective, Indonesian national songs share similar qualities with regional and children's songs, including simple melodies that are widely familiar and can foster a sense of national pride. The varied melodic structures, rhythmic patterns, tempos, and scales of Indonesian national songs are highly appropriate for beginner-level violin practice. The familiarity of these melodies to students, coupled with their straightforward rhythmic patterns, makes them ideal for teaching materials. As such, they are well-suited for adaptation and arrangement as resources for beginner violin instruction.

The guide on the side approach is rooted in constructivism, where learners (students) create knowledge based on their interactions with their environment, including interactions with others (Clark et al., 2008). The primary goal of this approach is to encourage students to take an active role in the learning process. Small ensemble playing offers a valuable opportunity for students to learn from one another, develop their skills, and foster cooperative thinking (Kokotsaki & Hallam, 2007). As previously mentioned, the guide on the side approach can be applied in music education through duet performances between teacher and student. A duet represents a form of small ensemble, where two individuals perform together on their respective instruments. This format allows for mutual learning and collaboration, enhancing both skill development and cooperative engagement. Aligned with the constructivist framework of the guide on the side, students build their knowledge by interacting with their surroundings, including with other people. Furthermore, in duet performances, each player assumes a distinct role—either as

#### 3.3. Characteristics of Indonesian National Songs for Beginner-Level Violin Instruction.

The teaching materials previously used include Essential Elements 2000 Violin Book 1, the Suzuki Violin Book 1, the Violin Method by Shinozaki, and the Yamaha Music Book. These materials are designed for beginner violinists, focusing on how to hold the violin, fingering techniques, and reading sheet music. The key violin-playing competencies addressed in these materials are (1) scale, (2) note values and rests, (3) Interval between notes, (4) time signature, (5) accidentals, (6) tempo markings, (7) fingering, (8) number of bars, (9) bowing techniques. These competencies cover both musical and technical dimensions. In the musical aspect, the scales used for selecting national songs include A Major, D Major, G Major, C Major, F Major, and D Minor. The relevant note values encompass whole notes,  $\frac{1}{2}$  notes,  $\frac{1}{2}$  notes with a dot,  $\frac{1}{4}$  notes,  $\frac{1}{4}$  notes with a dot,  $\frac{1}{8}$  notes,  $\frac{1}{8}$  notes with a dot,  $\frac{1}{16}$  notes, and triplet notes. The intervals between notes serve as a key criterion for choosing national songs, which should incorporate intervals such as the prime, major second, minor second, major third, minor third, perfect fourth, perfect fifth, major sixth, minor sixth, major seventh, and octaves. The tempo markings pertinent to the selection of national songs include Allegro, Andante Maestoso, Lento, Andante, Adagio, and Allegretto, with time signatures of  $\frac{4}{4}$ ,  $\frac{3}{4}$ , and  $\frac{6}{8}$ , and a total of 16-26 bars. In terms of technical considerations, the teaching materials cover various aspects such as fingering techniques, bowing techniques, slurs, and staccato. These criteria are derived from an analysis of the competencies present in the different teaching resources utilised by the participants of the study in beginner-level violin instruction.

The Indonesian national songs suitable for beginner-level competencies are Di Timur Matahari, Mengheningkan Cipta, Bagimu Negri, Ibu Pertiwi, Ibu Kita Kartini, Dari Sabang Sampai Merauke, Tanah Airku, Satu Nusa Satu Bangsa, Syukur, and Berkibarlah Benderaku. These national songs have been arranged in order of difficulty, from the easiest to the most challenging, based on beginner-level competencies.

## 3.4. Development Design for Teaching Materials Featuring Violin Duets of Indonesian National Songs Using the Guide on the Side Approach for Beginners.

Ten Indonesian national songs have been arranged for violin duets, based on Franz Wohlfahrt's Easiest Elementary Method for Beginners Op.38. This book provides a range of technical exercises for violin, formatted as duets for use in instruction (Ridhwan & Sukmayadi, 2022). It includes 114 duet exercises, designed for teacher and student to perform together. The teaching materials are arranged in an A-B structure: in section A, the student plays the melody of the national song accompanied by the teacher, while in section B, the student's role alternates

between accompaniment and melody (mixed role). In terms of texture, the arrangements incorporate both polyphonic and homophonic textures within a single piece.

In addition to the song arrangements, a variety of techniques for playing the violin, dynamic markings, and fingering instructions have been incorporated to ensure that students learn not only the melodies but also gain technical proficiency. The violin techniques for the Indonesian national songs are designed according to beginner-level competencies. These techniques encompass slurs, staccato, whole bow strokes, and half bow strokes. The dynamic markings included by the researcher are piano, mezzo-forte, forte, decrescendo, and crescendo. Additionally, the fingering instructions are adapted for beginners, focusing primarily on the use of open strings rather than four-finger techniques. However, several pieces do incorporate four-finger (pinky) techniques to help students practise their finger placement, as this can pose a significant challenge for beginners who are still getting accustomed to the instrument.

The researcher has incorporated several markings to assist students in understanding the developed teaching materials. These include fingering indications, whole bow and half bow markings, as well as signs for upward and downward bowing. Fingering is indicated using the numbers 0, 1, 2, 3, and 4. The number 0 represents an open string, indicating that students should bow the open string without pressing down on the fingerboard; 1 signifies the use of the index finger for pressing, 2 corresponds to the middle finger, 3 indicates the ring finger, and 4 refers to the pinky finger. The markings for whole bow and half bow are used to denote the length of the bow stroke on the violin. A whole bow (wb) indicates that students should draw the bow fully from the frog to the tip, while a half bow indicates that they should bow only partially, specifically in the middle of the bow. These fingering indications are intended to aid students in their finger placements on the violin. Likewise, the signs for full bow, half bow, and the up and down bowing motions are designed to assist students with their bowing techniques. The inclusion of these markings serves to clarify both fingering and bowing techniques.

#### 3.5. Steps of delivering Material.

The duet is a central aspect of all activities within the violin instruction process. It commences with initial activities, such as warm-up exercises, and continues with the utilisation of the developed teaching materials for violin duets featuring national songs. The strategy for selecting these teaching materials involves arranging the sequence of the learning process and designing student activities. Clearly, the implementation of these materials necessitates a structured framework, alongside several references and approaches for effectively presenting the content. The instructional model employed is direct Instruction, integrated with a drill-based methodology.

The Direct Instruction model of teaching involves the structured, sequential, and patterned transformation of information through guided training, characterised by a high level of teacher direction and control to achieve learning objectives in both knowledge and skills. This instructional model is particularly suitable for violin teaching, as it is inherently structured and step-by-step, facilitating skill development. Its primary aim is to maximise students' learning time, enabling them to actively engage in tasks during instruction, thereby enhancing their chances of

success (Joyce & Weil, 2003). The Direct Instruction model is appropriate for implementation in both music institutions and private music lessons, especially when lesson time is limited to one hour. The Direct Instruction model comprises five phases: orientation, presentation, structured practice, guided practice, and independent practice (Joyce & Weil, 2003).

The following presents the outcomes of the teacher's role in each phase of the Direct Instruction model, integrated with the drill method through the guide on the side approach using duet performances.

Table 1. Phases and Teacher Roles.

Phase	Teacher Roles
Phase 1 (Orientation) Outlining Objectives and Preparing Students.	The teacher outlines the objectives and prepares students by explaining how to play the duet teaching materials, including violin playing techniques, fingering methods, notation, and the overall approach to playing the violin as detailed in the duet materials.
Phase 2 (Demonstration) Demonstrating Knowledge and Skills.	The teacher demonstrates how to play the violin using the duet teaching materials.
Phase 3 (Structured Practice) Guided Training.	The teacher guides students through a slow and repetitive practice of the material included in the duet teaching materials.
Phase 4 (Guided Practice) Assessing Understanding and Offering Feedback.	The teacher and students play their respective parts from the duet teaching materials together.
Phase 5 (Independent Practice) Further Training.	The teacher outlines assignments for students to engage with the previously covered materials or encourages them to try the next subjects.

The following outlines the detailed steps (activities) for each phase described above.

**Table 2. Design of Activity Phases.** 

Activities	Activity Descriptions	Time Allocation
Introduction	<ul> <li>Begin with a greeting, followed by a prayer.</li> <li>Conduct violin tuning activities.</li> <li>Warm-up exercises on the violin: variations of long notes for 4 beats, 2 beats, and 1 beat. Long notes correspond to the scales of the songs to be studied (the teacher plays the notes of the tonic and quint from the student's performance).</li> </ul>	5 Minutes
Main Activity	<ul> <li>Orientation</li> <li>Students understand the learning objectives.</li> <li>Students become familiar with the bowing techniques and fingering required for the song to be studied.</li> <li>Demonstration</li> <li>The teacher demonstrates bowing techniques and fingering on the violin using the designated teaching materials.</li> <li>The teacher provides an example of violin playing for the student's part.</li> <li>Structured Practice</li> <li>The student practises their part of the duet material repeatedly.</li> <li>Guided Practice</li> <li>The student and teacher practise the student's part of the duet material together, slowly.</li> <li>The student and teacher practise the duet, each playing their respective parts.</li> <li>The teacher provides feedback on the duet material they have practised together.</li> <li>Independent Practice</li> <li>The teacher assigns tasks for the student to practise independently (including preparing for the next material).</li> </ul>	50 Minutes
Conclusion	The teacher reflects on the lesson conducted today.  Conclude the session with a prayer.	5 Minutes

#### 3.6. Implementation and Evaluation of Teaching Material Development.

The implementation of the teaching materials for violin duets featuring Indonesian national songs for beginner-level students was carried out to gather evaluation feedback from both students and teachers. This evaluation serves as a basis for further development and refinement of the teaching materials. The implementation was conducted with nine active students from Dotodo Music Edutainment, Yamaha Music School, and Sinfonia Music School, as well as two private students of the researcher. Each cycle of the implementation consisted of four sessions, each lasting 60 minutes.

In this implementation phase, there are two cycles, each divided into four stages of learning. The researcher organised these four stages of learning within the implementation process, taking into account the limited time available in each session by dividing two to three song materials across the meetings. It can be stated that each cycle consists of four sessions, each comprising four stages of learning.

In the first cycle, the first learning stage took place from 2nd November 2022 to 8th November 2022. During this stage, students studied three national songs: Di

Timur Matahari, Mengheningkan Cipta, and Bagimu Negri. The second learning stage occurred from 16th November 2022 to 22nd November 2022, where students focused on three national songs: Ibu Pertiwi, Ibu Kita Kartini, and Dari Sabang Sampai Merauke. The third learning stage was conducted from 30th November to 6th December 2022, during which students studied two national songs: Tanah Airku and Satu Nusa Satu Bangsa. The fourth learning stage took place from 14th December to 20th December 2022, during which students learned two national songs: Syukur and Berkibarlah Benderaku.

Challenges encountered during the first cycle, along with feedback from teachers regarding the learning process, include: (1) Students had difficulty playing the accompaniment melody in Section B, where they acted as the accompanists, (2) there were several motifs from the national songs that remained unfamiliar to the beginner-level students, (3) The intervals were quite large, leading to string crossing issues in the song Tanah Airku, (4) the tempo played by the students was inconsistent, sometimes slowing down and at other times speeding up, (5) suggestions were made to improve the notation of up and down bowing to facilitate better synchronisation between the students' and the teacher's bowing techniques, (6) teachers also recommended improvements to certain techniques, such as half bow and whole bow, noting that their placements were not yet aligned with the performance of the developed national songs.

Based on the evaluation results, revisions to the violin duet teaching materials were implemented, including: (1) creating audio duets of the national songs to facilitate independent practice for students, (2) adding dynamic markings to the teaching materials to help students learn to read dynamic indications, (3) improving the notation of up and down bowing to ensure better synchronisation between the teacher's and students' performances, (4) adjusting the placement of half bow and whole bow markings, (5) introducing rhythmic motifs to better prepare students for playing the national songs.

In the second cycle, students revisited all the national song materials that had been revised based on feedback from teachers and the researcher's reflections from the first cycle. Structured practice was conducted to review the students' parts in playing the violin, followed by guided practice focusing on duet playing. The teacher's emphasis during this phase was on guided practice, assuming that students had already practised their parts at home. The teacher worked on the three songs, positioning the students as the primary actors in the learning process. Students took the lead during the lessons, for example, by setting the initial tempo when beginning to play the national songs and determining the time signature to be used in case of mistakes during the performance. The first learning stage of this second cycle occurred from 9th November 2022 to 15th November 2022, focusing on the three songs: Di Timur Matahari, Mengheningkan Cipta, and Bagimu Negri. The second learning stage took place from 23rd November 2022 to 29th November 2022, during which students revisited three national songs: Ibu Pertiwi, Ibu Kita Kartini, and Dari Sabang Sampai Merauke. The third learning stage was conducted from 7th December 2022 to 13th December 2022, where students studied two national songs: Tanah Airku and Satu Nusa Satu Bangsa. Finally, the fourth learning stage occurred

from 21st December 2022 to 27th December 2022, during which students learned two national songs: Syukur and Berkibarlah Benderaku.

In this reflection phase, feedback from the teachers served as a foundation for improving the violin duet teaching materials. Revisions included enhancing the previous duet audio, which was deemed unrealistic (too MIDI-like), resulting in unclear dynamic performances. The revisions involved live recording processes to provide a more realistic audio format, enabling students to study various national songs through detailed recordings that capture dynamics, metronome pulse, and tone production.

#### 4. DISCUSSION

In the process of developing teaching materials, it is essential to undertake a careful selection of the materials to be developed. The significance of this selection process can significantly impact the continuity of learning. Research by Elpus and Abril (2011) indicates that the choice of music genre and the use of interactive teaching methods can enhance students' interest in music education. Similarly, Wiener (2014) found that using engaging and interactive music materials for middle school students in the United States can increase student participation in music lessons. It can be concluded that the selection of teaching materials in music instruction is crucial for enhancing students' interest, participation, and overall learning outcomes. Conversely, inappropriate selection of music teaching materials may lead to challenges that hinder the achievement of desired objectives.

The development of teaching materials based on Indonesian national songs is intended for beginner-level violin students. In this context, Indonesian national songs represent the essence of Bhinneka Tunggal Ika, which translates to "Unity in Diversity." This conveys the significance of unity and cohesion amidst the diverse cultures present in Indonesia. For example, the song Satu Nusa Satu Bangsa reflects the cultural, linguistic, and religious diversity of Indonesia, emphasising that we are all united as one nation. Additionally, there are criteria for effective teaching materials as outlined by Napitulu and Arif (1997), which state that teaching materials should reflect the background and experiences of the learners. This indicates that the presentation of teaching materials must be considered in terms of effectiveness, relevance, systematic structure, and context. As Campbell states (in Agung, 2011), music educators must adapt the materials and cultural context to the school environment in which they teach. Similarly, music instruction should prioritise student musical activities that align with the cultural context of their surroundings. This makes national songs an appropriate choice for developing teaching materials for violin instruction, especially concerning their characteristics.

Common challenges faced by students, such as difficulty in visualising melodies from the Suzuki Violin Method, Yamaha Music Book, Essential Elements 2000, and Houchi Violin Method, can be addressed. Findings from the research in the implementation of the developed teaching materials indicate that students find it easier and quicker to play the violin for Section A, which is the main melody of the national songs, compared to Section B (the accompaniment). This is because the melodies of the national songs are familiar to students, having been frequently played or sung during ceremonies, independence celebrations, and as part of Indonesia's cultural heritage. As for the accompaniment,

students need to memorise the accompanying patterns, which requires time for familiarisation through auditory sensitivity in violin learning. Familiarity with the sound flow and melody is crucial for the learning process, especially given that the violin is a fretless instrument. This aligns with the findings of McPherson (1995) and Dickey (1991), which highlight a significant correlation between familiar melodies (stored in memory) and improvements in students' sight-reading skills, intonation, and rhythmic performance accuracy when they memorise melodies beforehand. Such familiarity and retention of melodies can lead to greater time efficiency, pitch accuracy, and more stable tempo (Ellis, 2021).

On the other hand, the familiarity of students with the melodies from the teaching materials (stored in their memory) highlights the importance of selecting music teaching materials that reflect the background and experiences of the learners. Additionally, teachers must adapt the materials and cultural context to the school environment in which they teach, as emphasized by Napitulu and Arif (1997). This approach facilitates the learning process for students. The teaching materials developed by the researcher can also serve as a means of bridging (understanding) other cultures (through the violin) using our own culture (Indonesian national songs), allowing students to engage with the violin within the context of their cultural background, thereby addressing any cultural gaps between students and the instrumental teaching materials.

These teaching materials are the result of implementing the guide on the side approach in a student-centered music learning process. During the implementation of the second cycle, there was an emphasis on the role of students in leading the violin learning process using the materials developed by the researcher, such as determining when to start the piece, repeating sections that they found challenging, and assessing their performance on the studied works. The shift in leadership roles during the duet violin teaching provides significant benefits in achieving learning objectives regarding understanding, expression, and awareness among students—not solely from the teacher's perspective. This evidence suggests that the learning experience is genuinely student-centered, as understood by both the teacher and the students.

Students responded to playing the duet by stating that it was "more enjoyable, felt like playing in an orchestra, and was not boring." This indicates that students are more motivated when engaging with teaching materials that implement the guide on the side approach. Similarly, teachers noted that the learning experience was less monotonous due to the enhanced interaction between students and teachers. It can be concluded that the implementation of the guide on the side approach fosters a stronger social bond between students and teachers. Consequently, this teaching material, through the guide on the side approach, reduces the teacher's dominant role, making it more student-centered, while also mitigating feelings of isolation and bridging the social gap between teachers and students, as noted by Long et al. (2015).

After establishing the minimum standard competency indicators from the four designated teaching materials, Indonesian national songs were selected that align with these competency standards while considering the ease of play for beginners. The selected songs include: Di Timur Matahari, Mengheningkan Cipta, Bagimu Negri, Ibu Pertiwi, Ibu Kita Kartini, Dari Sabang Sampai Merauke, Tanah Airku, Satu Nusa Satu Bangsa, Syukur,

and Berkibarlah Benderaku. Through the content analysis of these teaching materials, a framework can be established that encompasses both technical and musical aspects appropriate for beginner-level materials, thus facilitating the development of violin teaching resources.

Several markings were added by the researcher to facilitate students' understanding of the developed teaching materials. These include fingering indications, whole bow and half bow markings, and up and down bowing signs. The fingering indications use the numbers 0, 1, 2, 3, and 4. The number 0 indicates an open string, where students bow the open string without pressing on the fingerboard; number 1 indicates that the index finger should be used for pressing; number 2 corresponds to the middle finger; number 3 indicates the ring finger; and number 4 refers to the pinky finger. The whole bow and half bow markings are employed to indicate the length of the bow stroke on the violin. Whole bow (wb) signifies that students should bow fully from the frog to the tip, while half bow indicates that they should bow only partially, specifically in the middle of the bow. These fingering indications are intended to assist students in their finger placements on the violin. Similarly, the full bow, half bow, and up and down bowing signs are designed to aid students in their bowing techniques. The inclusion of these markings aims to clarify both the fingering and bowing techniques used. This aligns with the criteria for teaching materials outlined by Yaumi (2016), which include: 1) content that is appropriate for the students' age and level; 2) engaging for students; 3) easy to understand; 4) systematic; and 5) the use of clear styles and vocabulary

During the implementation process of the teaching materials developed by the researcher, evaluations and reflections were conducted on the challenges faced by students, including: 1) several rhythmic motifs from the national songs remained unfamiliar to beginner-level students; and 2) there was inconsistency in the tempo played. To address these challenges, it is necessary to establish a routine to help overcome these difficulties. The researcher created supporting materials so that the developed teaching resources could be used individually (for self-practice by the students). As noted by Supardi (2018), supplementary materials for individual learning include radio broadcasts, audiovisual programmes, television, and tools used to structure and monitor the process by which students acquire information. Therefore, the researcher produced audio resources based on the developed teaching materials and introduced rhythmic motifs from the national songs.

The researcher designed a violin duet performance packaged in audio format. This serves as a supportive tool for both students and teachers to practice playing the violin independently. The audio was shared directly with students and teachers to serve as a reference and provide a comprehensive overview of the Indonesian national songs developed by the researcher.

The introduction of motifs in music involves analysing the rhythmic patterns, melodies, harmonies, and other musical elements that recur throughout a musical work. A motif can be a short phrase or a rhythmic pattern that is repeated throughout a song, serving as a unifying element that ties together various sections of the music. To identify musical motifs, the researcher listens to the music slowly, paying attention to the recurring patterns or phrases. This involves looking for similarities in rhythm, melody, harmony, and

other musical elements that appear repeatedly throughout the piece, while considering the structure of the music, such as the form of the song and how motifs emerge and develop in each section. This understanding can be useful for composition and music analysis, as well as deepening appreciation for music. In the Indonesian national songs developed by the researcher, there are rhythmic motifs that present challenges in the learning process. Based on observations from teachers and student performances (which are repeated), the motifs deemed difficult to play are found in the songs Bagimu Negri, Ibu Pertiwi, Ibu Kita Kartini, Dari Sabang Sampai Merauke, Tanah Airku, Satu Nusa Satu Bangsa, Syukur, and Berkibarlah Benderaku. Students are not yet accustomed to playing several motifs from these songs, necessitating familiarisation with these motifs.

Based on feedback from both students and teachers, it can be concluded that the use of duet teaching materials featuring national songs for beginner-level students in violin instruction received positive responses. There has been an improvement in students' performance in duets as well as their motivation to learn the violin. Furthermore, the use of supplementary tools, such as the introduction of rhythmic motifs and audio, significantly contributes to easing the students' learning of these materials. This approach successfully creates a learning experience that is culturally relevant, enhances students' musical skills in terms of technique, and provides a more enjoyable learning experience. The development of violin duet teaching materials also benefits cultural introduction, the development of collaborative skills, and enriches students' musical expression. This approach fosters a meaningful and relevant learning experience while enriching students' appreciation of Indonesian music and culture.

#### 5. CONCLUSION

The concept of the developed teaching materials for violin instruction adopts a guide on the side approach, implemented through duet performances between the teacher and students using ten Indonesian national songs based on cultural themes. This innovation positively impacts students' learning of the violin through duet practice with their teacher, both as the melody player and the accompanist. These teaching materials provide students with the opportunity to take the lead during the violin learning process. It can be said that students play a primary role, resulting in a student-centered approach to violin instruction.

The materials feature songs that are familiar to the students, specifically Indonesian national songs, allowing them to leverage their auditory sensitivity and familiarity with these pieces in their violin playing. However, the limitations of these teaching materials include the lack of further studies on the difficulty levels for intermediate and advanced students. Additionally, these materials have not been extensively examined through comparative studies and benchmarking against standard etudes in the field of violin education. Furthermore, the teaching materials do not include etudes that could serve as foundational exercises for various violin playing techniques.

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