

Innovative music learning in "Profil Pelajar Pancasila" development for students: an intervention study through world wall applications



Mantaaba Zukhruf Nabilunnuha a,1,*, Sunarto a,2, Syahrul Syah Sinaga a,3, Wahyu Lestari a,4

ARTICLE INFO

Article history

Received 2022-10-19 Revised 2022-11-10 Accepted 2022-12-26

Keywords

Music Learning Profil Pelajar Pancasila Wordwall Application

ABSTRACT

The importance of art education in instilling the principles of Pancasila that should be taught to pupils has diminished since the era of technological transformation. Learning the names of the Pancasila principles through music is a powerful tool. However, pupils lose interest in the process when learning is still presented in the traditional fashion. Students' strengths in global variety, mutual cooperation, independence, critical reasoning, and creativity can be cultivated through this musiclearning process and included in their Pancasila student profiles. As a result, changes in music education are necessary for the extras. The study's overarching objective was to explain how interventions based on the world wall application might help students build a Pancasila profile to better serve their communities. The art and culture instructor and the tenth-grade pupils at MAN 2 Kediri in the city of Kediri participated in this study. This research uses observation, interviews, and written records to acquire its data. The results of this study indicate that learning the art of music at schools in trumpet practice using the wordwall.net application can stimulate the profile of Pancasila students by cultivating an open way of thinking, mutual respect, mutual care and collaboration. This research is expected to be an innovative medium for teaching music learning so that students can get to know music in various ways.



This is an open-access article under the CC-BY-SA license.



1. Introduction

In the twenty-first century, Indonesian educators have jobs full of challenges. Students are asked to engage in in-depth reflection on their current learning challenges, and the role of the teacher must be able to develop their contextual analysis skills in the internet era, the goal is to understand phenomena and gain contextual knowledge in the all-digital era of information speed [1]. If we want our students to develop their critical thinking skills and learn to solve problems without being given the answers, we must emphasise meeting their specific needs [2]. Here, teachers take on the role of facilitators, introducing students to fresh perspectives and lines of investigation while encouraging them to build upon and refine their own distinctive thoughts and notions [3]. As a result, a high-level framework for a policy statement regarding the abilities and information that will aid students in becoming well-rounded individuals is necessary [4].

A relatively recent idea on how Indonesian students create opinions can be learned from the profile of Pancasila students [5]. They become unique, skilled, and infused with Pancasila characters as a result of the learning process, which prepares them for lifetime learning in competitiveness in this global period. Faith, fear of God Almighty, and noble character; global diversity; working together; independence; critical reasoning; creativity; are the six core qualities that make up the Pancasila





^a Universitas Negeri Semarang, Semarang, Indonesia

¹ mantaabazukhruf@students.unnes.ac.id*; ² sunartofbs@mail.unnes.ac.id; ³ sinaga@mail.unnes.ac.id; ⁴ wahyupyarlestari@mail.unnes.ac.id

^{*}corresponding author

student profile. It is hoped that by emphasizing the importance of having trust in God, respecting God as Almighty, and acting with a noble character, students would always remain steadfast in their beliefs [6].

However, in reality, technological advancements are starting to undermine the Pancasila values that should be taught to children [7]. A significant element is the lack of innovative educational strategies, which causes pupils to ignore the lessons found in their education's core curriculum. Making sure that students are not sidetracked while participating in educational activities is still a priority in traditional educational strategies [8]. The traditional teaching methods for introducing new concepts to students include question-and-answer sessions. Teachers rely on their students to pay attention in class and respond to their inquiries [9]. This approach is employed when the school's resources are insufficient [10]. To keep up with contemporary norms, this strategy has to be updated. This is because the extensive use of technology has had a significant impact on students' psyches, helping to separate them into different generations, from Z to alpha [11]. Because this generation grew up with scientific achievements, this cannot be contested. There are both arguments in favour of and against the notion that children's greater exposure to electronic devices would have a negative impact on their character [12].

Findings by Cahyati suggest that relying solely on search engines for information gathering may result in a loss of critical thinking skills and a distorted sense of the veracity of the material gathered [13]. Students who have access to social media are also more comfortable connecting with others online, whether it is by posting blog entries or images of their most recent projects [14]. Student behaviour while learning is altered through adaptations. By strategically deploying technological resources at crucial stages during the learning process, this educational paradigm could be changed to better meet the needs of certain pupils [15]. Students need innovative methods to study music and other cultural skills in the globalised modern world [16].

Music education has established a strong foundation in the practice of conventional classroom-based instruction and is one of the most prominent aspects of school-based cultural arts education [17]. Teachers generally require their students to memorise music theory and history in addition to trying to get them to hear the sound in their thoughts because there are few opportunities for pupils to put what they have learned into practice [18]. Students' minds grow weary from sitting through another boring lecture. Further, only students in small groups can make use of the resources which are made available for the practice of music in extracurricular activities like school bands, choruses, and other musical groups [19].

There is no way this could help children study as effectively as possible. In addition to dampening students' enthusiasm for music class, teaching music in such a way that it can only be understood as a defined theory instead of music as a whole is counterproductive [20]. It is possible to bring the Pancasila student profile to life using music as a cultural arts education medium [21]. Bonus points can be obtained by showcasing creativity and analytical prowess. While learning about art, students can use their creativity by improvising or creating their own musical accompaniment. Another example of musical innovation can be seen in the students' expressive sincerity and musical dynamics [22]. Ki Hajar Dewantara asserts that the practical use of musical knowledge can foster human creativity, taste, and initiative [23]. Arts education that focuses on traditional music, from karawitan to keroncong, experienced by students during the learning process would also raise the profile of Pancasila students who think critically in order to comprehend the worth of Pancasila.

Zhu's findings show that when students study other subjects, non-music, or non-art, students feel more tired, but when children are involved in music class activities they have more imagination and make students have a lot of fun while learning [24]. Another study conducted by Serrano revealed that the application of technology in music education is a new form of learning, especially during the covid-19 pandemic, but unfortunately, the rules and also the use of media are still very limited, so learning music is a little disrupted. Consequently, educators are compelled to innovate by making use of available technology means in order to infuse the importance of the Pancasila character in art education [25]. There has been a flurry of activity about the use of covid-19 to speed up the process of incorporating technology into the classroom [26]. In cases where traditional classroom methods will not work and where only online instruction will do [27]. Because of these factors, art and cultural education are negatively impacted for a variety of reasons [28]. Even educators rely solely on dry

theoretical presentations; students sometimes struggle to complete practical projects, such as those involving musical practice, because their prior exposure to music varies widely [29].

However, the accessibility of music editing software in a variety of applications like music editors that can edit music tempo, high and low pitch of songs to cut parts of the song to become familiar, and this feature found in online media like tiktok has not been used to its fullest potential as a learning medium [30]. Indeed, teachers can use the media to put musical content in a pedagogical framework [31]. With the resumption of in-person interactions in classrooms of all levels, it is intended that students will be able to fully immerse themselves in musical study. This may be unsettling, especially if teachers persist in using outdated practices [32].

Using web-based musical applications is one form of media [33]. Using this technology can help students make the transition from being exclusively digital natives in their daily lives outside of school [34] to being digital natives in their classrooms. Web-based applications have the advantage of being accessible from any location with a reliable internet connection, eliminating the need for users to download APK files from the play store [35]. Matchmaking, randomizing words, and spinning wheels for creating games' worth of quizzes are just some of the interactive learning media tools you'll find in the wordwall.net app. Use the wordwall.net tool to organize your classroom's resources. There are certainly drawbacks to using this program for educators with little experience with technology, especially those who struggle to get their android devices to function properly.

However, this software does require some prep work on the part of the educator. The research team hopes to identify Pancasila pupils by analyzing how they use the wordwall.net software to learn music instruments like the trumpet. when kids are having trouble learning and are being evaluated. By teaching students empathy and compassion for others via activities like role-playing and group projects, Worldwall-based education encourages a more empathetic and collaborative worldview. This research is intended to increase music learning literacy in the digital era. In addition, learning music must also be packaged as attractively as possible to increase students' interest in learning. Therefore, learning music using the wordwall.net application is intended to raise the "Profil Pelajar Pancasila" in students.

2. Method

This study aims to produce a description of the application of music learning innovations using the wordwall.net application in an effort to develop a profile of Pancasila students in grade 10 students at MAN 2 Kediri. This research uses descriptive qualitative research method. His strategy was opted for because it is suitable for locating and investigating the chosen research topic. A student profile of those who study the Pancasila is the topic of this investigation, which centers on the role of applications in the educational process. This study focuses on a Cultural Arts Educator as its subject. The research subjects include all sixth-grade pupils, not only those in the tenth grade, so that the findings are as comprehensive as possible. At MAN 2 Kediri in Jl. Lt. Gen. Suprapto No. 58 in the Banjaran neighborhood of Kec. City, City of Kediri, East Java 64124, researchers conducted studies and gathered data. Interviews, field notes, and other records were used to compile this study's data.

Study participants were interviewed in a semi-structured format. The interviewees are questioned for their thoughts and opinions in an effort to identify issues in a more transparent fashion. In addition, you can ask the resource person questions and learn more that way. These interviews will take place in person, while others will be conducted remotely or over the phone using tools like WhatsApp and phone calls. This research utilized an observational methodology to examine the practical application of pedagogical processes in the study of arts and culture. From August to September, I observed students as they learned music theory and performed in and out of the classroom. In addition, photographs and videos of participants' physical appearance, attendance, test scores, and applied KI and KD are collected during the preliminary stages of research, Fig. 1 is research procedure.

Observation Of Learning Process Activities Applied In Arts And Culture Subjects Interview Face To Face And Via Whatsapp / Via Telephone Collect Documentation In The Form Of Photos And Videos Of Performances, Attendance, Test Scores, KI And KD Which Are Applied In Music Learning Data Condensation Stage Categorization of data (summarizing the results of interviews and following them in the list) Data Display Stage Presenting data in narrative form telling about innovations applied in music learning using the wordwall.net application reinforced with tables, charts, and pictures according to the discussion in the study Conclusion Drawing Stage Conclusion of research results with data triangulation techniques

Fig. 1. Research Procedure

3. Results and Discussion

3.1 Music Learning Practices at MAN 2 Kota Kediri

Children who learn cultural arts, and music in particular, are encouraged to improve their cognitive, affective, and psychomotor skills as well as their aesthetic ideals. These three areas are where students learn about the world and can develop their attitudes and skills [36]. Material for two or three classes' worth of meetings is often distributed in class. To communicate concepts fundamental to the study of cultural arts and their application. Traditional pedagogical settings typically employ expository textual explanations of prevailing views on the nature of music and its constituent parts. The course is based on KI 3, which states that students should be able to "understand, apply, and analyze factual, conceptual, procedural, and metacognitive knowledge based on their curiosity about science, technology, and technology." This is the foundation of the learning design created for level 10 SMA/MA students' creativity in the arts and the study of human nature, national identity, and political structure. Create brief musical compositions using KD to explore themes of art and culture. Slamet Ariyadi, a teacher of cultural arts who specializes in music, puts this theory into effect by having his students learn to play the trumpet. A collection of drum band instruments, including 12 trumpets, six flugelhorns, four trombones, four mellophones, two tubas, two cymbals, four snare drums, four drums, and ancillary items such as costumes and props, are also used for this purpose. Teachers need resources that help students hone their musical abilities.

To add to this, the trumpet and flugelhorn were the instruments of choice for Slamet Ariyadi's instructional methods. This choice takes into account both the tools available to the teacher and the student's level of interest in learning in class, which tends to decline as students become more comfortable with and adept at using new technologies that make it easier for them to interact with one another. Additionally, since not all schools have drum band instrument facilities, selecting a drum band instrument is another way to offer a unique musical experience. *Tokecang* (West Java), *Gambang Suling* (Central Java), *Jula-Juli* (East Java), *Apuse* (Papua), *Soleram* (Riau), and so on are only some of the regional songs that the children of the archipelago would learn to perform after being exposed to western musical instruments. In addition to promoting patriotism, the choice of the archipelago hymn helps to characterize those who study the Pancasila. As a matter of professional practice, he opted to have his students' practice trumpet blowing on the field rather than the hall, where reverberations can make for an unsettling learning environment. The area was chosen in part because of the presence of tree cover, making it feel more like an extension of the classroom, even when studying outside. Class 10 group 6 has spent the previous four hours inside the classroom; therefore,

the interview session with pupils learning outside the room is extremely enjoyable for them. As a result, even if students have played a musical instrument previously, they can learn about the trumpet and the drum band's structure from the material presented because it is all new to them.

The first step in the learning process requires the teacher to coordinate the students so that they can go to the storage room for the drum band instruments and retrieve the 12 trumpets and three flugelhorns that have been set up for 15 pupils. The students will take the trumpets to the field after they have stolen the music box. To help drown out the ambient noise outside the classroom, some students bring in their own microphones, cords, and small speakers from home. Students line up to have their attendance taken, which is used to determine whether or not they are actively engaged in the learning process, as well as to identify any barriers to participation, such as canker sores, that may be preventing them from doing so. This is another way in which teachers care about their students and foster a deep rapport with them. As an added bonus, students will receive some theoretical background on the trumpet that may be used in music-centric arts and culture courses. One way in which teachers show they care about their student's musical development is by paying close attention to them. Teachers inspire their students to learn, and that's why teaching is so important. After taking roll, students with absences between 1 and 15 form a parallel line, with the trumpet box put in front of them so that the contents of the box don't become spread throughout the class. The instructor gestures for the class to go into trumpet-ready posture by elevating the instrument above their heads, elbows pointing down. Next, begin with the warm-up by pressing the trumpet keys in sequence to loosen up the fingers. If that is not enough, then the wind must blow the trumpet to see if it has blocked or if there is uncleaned liquid vapour. Next, they will disinfect the trumpet mouthpiece, as it is part of the instrument that comes into direct contact with the lips.

The instructor then indicated that students should begin playing the trumpet by playing the tones c and do. With the intention of creating a mellow colour tone from the played c note, the tone is produced rhythmically with lengthy notes. The ideal abdominal diaphragm stance can impact the quality of the tone created, and employing a lengthy tone serves this goal, as well as ensuring a good and suitable breath for sounding the trumpet by keeping the lips tight so as not to damage the cheek. The instructor emphasizes proper trumpet-blowing technique in order to achieve the desired tonal quality. The instructor then produces a variety of rhythmic sounds, from quarter notes to full, in order to train the tone. As an added bonus, it may be utilized to hone your tone articulation skills. This exercise's results are rescaled according to the kd that was written. The teaching of music can serve as a vehicle for establishing the Pancasila tenets in pupils. Teachers should think about how to provide material in engaging ways without sacrificing the core ideals of Pancasila that they hope to inculcate in their students. Therefore, it is important to adapt to new information, particularly as the modern age pushes educators to improve teaching practices across the board, including in the area of art education.

3.2 World Wall Application Interventions in Music Learning

Since the speed of technology increased during the COVID-19 epidemic, educators have chosen to incorporate it into the innovations they have introduced as a means of adjusting to new circumstances. The goal is to make it seem as though classroom instruction is likewise dynamic and does not have a depleting impact on students' mental stamina. The use of technology in education also tries to demonstrate how the world of education is changing along with the rest of society. One of the tenets of the Pancasila student profile is that students should be able to think independently and critically, and in today's rapidly changing digital environment, teachers must devise methods to ensure that their pupils can do just that. The concept of learning that must be implemented is student-centred learning. In order to help pupils establish a Pancasila profile based on the tenets of faith, reverence for God Almighty, chivalry; international understanding; teamwork; autonomy; critical thinking; and originality; Students gain confidence in their own judgment as they analyze and generate new ideas via the lens of music studied in depth through cultural arts mediums. Therefore, children require a motivating factor in their education, and one way to provide it is through the study of arts and cultures. In his role as an art and culture educator at MAN 2 Kediri, Slamet Ariyadi is keen to make use of cutting-edge tools like the wordwall.net platform.

The app's portability is a factor since it can be accessible from a variety of devices and locations, which is useful for learning music in the field. Not only is portability a factor in selecting this software but so is the availability of an online connection: the app may be utilized in the learning process on any Android device. In practice, students may access wordwall.net freely using their own devices, and

the site's open access connection means that educators and students from other institutions can utilize the same data to facilitate the teaching and learning process. Using their own devices, students may engage in self-directed, learner-centric study. In which the students engage in student-to-student contact with educational resources on the Internet. In practice, Slamet Ariyadi incorporates both traditional methods of education and cutting-edge technological tools. Due to the fact that few students ever get to handle a trumpet, traditional teaching methods are employed to instruct pupils on how to play the instrument, see Fig. 2. A member of Group 2 will be selected to serve as the officer in charge of running the wordwall.net program, just as in the previously outlined learning process. The second group, directed by the moderator, practices with the first group, and then the first group practices with the second group. Remembering the same serial number as the moderator spins the random wheel with the following link https://wordwall.net/resource/35978920. This is essential to ensure a pleasant environment since the application randomly selects the order of the items from a range of serial numbers, from 1 to 15, according to the number of kids in each group. Following the drawing of the winning number, the moderator will use the link https://wordwall.net/resource/36108052 to unlock a few random cards.



Fig. 2. Documentation of students using the world wall application.

This also tries to create a pleasant environment because the programme's tones will be selected randomly. To make things easier in real life, the moderator will be assisted by an assistant moderator selected from group 2. The moderator will instruct the students to sound the tone that shows on the screen, such as the tone C or Do, after which each student who gets a turn will play the note according to the guidelines for playing with a lengthy tone of four beats. A long note should be sounded in order to create a distinct tone that makes it simple to assess. The worried student will then move on to the second game, which is rhythmic improvisation, after clearly sounding the lengthy note. This rhythmic improvisation aims to promote independence, fast thinking, and originality. Students' ability to respond quickly with rhythmic patterns on the same note demonstrates creativity using arbitrary rhythmic combinations from full to eighth. This may also serve as a measure of how well pupils are paying attention to the lesson. as demonstrated by the use in musical practice. Students are permitted to apply the rhythm they have heard as a part of what they have studied thus far in order to create authentic opportunities. It is also intended that music education correlates with habits that students already have in their life, such as the habit of listening to panjak jaranan music, which allows students to produce rhythms that are typically heard applied to trumpet practice. Then, for instance, if students are used to hearing the hadrah tambourine's beat, it can be used by blowing trumpet blasts with the tone that is heard in the wordwall.net program. This is done often and alternately to make sure each child gets the same amount. Since the introduction of independent study, the learning process has improved as expected. Independent practice routines that emphasize the requirements that must be studied, and optimise time in studying each topic, allow students to display critical thinking abilities that lead to improvement in skill levels. This lesson plan guides students through a methodical process to help them improve the physical (breathing, embouchure, tongue, and fingering) and musical (voice colour, intonation, articulation, dynamics, and duration) skills required for playing the trumpet.

3.3 Evaluation of Music Learning Using the World Wall Application

Evaluation At the stage of using the wordwall.net application it can be applied to each student where the student who becomes the moderator or assistant moderator knows that there is an error in the position of holding the trumpet to how to sound the tone starting from how to press the trumpet keys, then the tone that is heard does not match the image shown by the application will be corrected by other friends, see Fig. 3. The method is to sound the notes in the picture while surrounded by friends; alternatively, students may find the wordwall.net programme useful as a guide to use so that there is student-centered learning engagement. Later on, after students have mastered the basics, they can jam together or respond to each other rhythmically in 1 tone, turning the trumpet into a percussion instrument in the process and encouraging a spirit of acceptance and community. In this case, Slamet Ariyadi's role as a teacher can be fulfilled by having him or her function as an impartial observer during the assessment phase, freeing pupils to learn on their own initiative so long as they have a solid foundation in the necessary theory. Students' demeanour may be gauged by observing their posture while holding the trumpet and their responses to the moderator, who controls the wordwall.net software, for clues as to how quickly they can execute given orders. The student's attitude will next be shown through his or her trumpet playing, where it will be clear whether the student takes the instrument seriously and is eager to make the most of its potential. Then, students may demonstrate self-assurance by demonstrating their ability to improvise rhythmically, whether through a quick or gradual response to the trumpet. When a faulty tone is played, the instructor may see if the students assist each other by pointing out and rectifying the error. Tolerance among classmates can also be promoted. With the teacher in this role, the classroom becomes a more student-centred environment.



Fig. 3. Music Learning Evaluation Stage

3.4 Improving the Profile of Pancasila Students Through Music Learning Based on World Wall Applications

Description of Pancasila In a project-based learning environment, wherein students are given resources and instructed to teach and learn from one another, a more holistic, contextual, learnercentred, and exploratory learning environment may be established via the students' own initiative and inventiveness. Slamet Ariyadi, a teacher of arts and culture with an emphasis on music, used the wordwall.net program as a means of connecting students with the principles of the Pancasila student profile, which include belief in and respect for God Almighty and the development of virtuous moral fibre; Ability to work with people from different cultures; Independence; Self-reliance; Analytical thinking; Originality. On the basis of Faith, the fear of God Almighty and virtuous character can be inspired by obeying established norms. Students demonstrate this respect by carrying out the instructions of the moderator, the person in charge of the wordwall.net program, in the hopes that doing so would help them develop admirable qualities in themselves by adhering to the regulations set forth in the application. Students' confidence in their God-given talents—including healthy bodies and an eagerness to learn—is another manifestation of their faith. Students who have never played the trumpet before are put in a position of public embarrassment when they can't play along with their classmates who have more experience. Students are able to stop feeling inferior about their trumpetplaying skills if they come to terms with the divine origins of those skills.

If some students are very skilled at playing the trumpet, for instance, they can offer to tutor those who are less experienced in this area, so fostering an atmosphere of acceptance and tolerance that is conducive to the development of a more inclusive and welcoming school community. This encourages more advanced pupils to appreciate those who are still learning. In the context of gotong royong, this can be accomplished by the use of the wordwall.net program in structured activities, such as students executing processes to begin learning by preparing a trumpet instrument for a class of 15, or about half the typical class size. That way, through sharing the resources, the spirit of acceptance may flourish. When students line up next to each other in an efficient and effective fashion, they are able to fully appreciate the benefits of cooperative activities. Collaboration leads to the emergence of the gotong royong characteristic [37]. Student creativity, which is central to the Pancasila profile and art education more generally, may be nurtured through a variety of activities utilizing the wordwall.net tool. This can be accommodated until students reach the point where they can execute rhythmic improvisations that are the product of their acquired art education and evoke a creative reaction. Even those who have never played an instrument before can come up with original solutions using rhythmic combinations ranging from entire notes to a blend of eighth notes. It has been demonstrated that choosing proper educational material encourages original thought [38].

Students can be encouraged to develop their critical thinking skills by responding to and helping one other out in situations where one buddy sounds an unsuitable tone while using the wordwall.net program by providing adjustments when the theme delivers the wrong tone. It can also be brought up during rhythmic improvisation at this point, allowing students to draw on their acquired knowledge and experience to create a really original rhythm. By combining factors that excite students' thinking abilities, such as the usage of learning material utilizing internet technology, it is possible to promote critical aspects. One of the purposes of using wordwall.net, where student-centred learning may be carried out, is to encourage autonomy. This is evident in activities utilizing the WordWall.net application, in which the students themselves choose the pace of the activities; as a result, a sense of leadership emerges, particularly among the students who take on the role of WordWall.net administrators. Students' self-designed activities with the use of the media-based learning platform wordwall.net can also stimulate their independence. Students' curiosity about the internet may be piqued by the use of interactive learning materials, as shown by studies [39]. A student's pantheon profile value can serve as a guidepost for developing the student's resilience and critical thinking skills in preparation for "experience knowledge" as a means of character development and an opportunity to learn from the world around them. Technology-based educational resources can be used to encourage the development of a person's core values.

4. Conclusion

One way that technology is being used to revolutionize the way music is taught is through rehearsal. The goal of this new approach to education is to create a portrait of a Pancasila student using a methodology that adapts to the changing needs of today's pupils. There are a number of pressing issues that necessitate new approaches to teaching music, the most important of which is that students are losing interest in traditional methods of instruction that do not use technology, such as lecturing and question-and-answer sessions in the classroom. Wordwall.net, an innovative tool for teaching music, may be used to both familiarize students with trumpets and hone their playing skills. Due to the monotony of classroom instruction, children benefit emotionally and mentally from learning experiences that take place outside the classroom, specifically in the field. Faith, fear of God Almighty, and noble character; Global variety; Teamwork and independence; Individual initiative and critical thinking are all part of what we hope this activity will help our children achieve. Learning an art form, in this case learning to play the trumpet, may be a catalyst for unleashing latent creative potential. The wordwall.net software is user-friendly and mobile, so students may manage it on their own. It may be used by students to learn the trumpet via the use of musical practice. By following the offered links, students can conduct independent research. Here, the instructor can evaluate as an impartial spectator, making room for pupils to express their originality through rhythm games they've brought in on their own or have created through a synthesis of previously learned rhythmic possibilities.

Acknowledgment

We would like to thank all parties who have participated in this research. We also thank the journal for giving us the opportunity to write this article. I hope this article can be useful for all parties.

References

- [1] C. B. Mpungose, "Student Teachers' Knowledge in the Era of the Fourth Industrial Revolution," *Educ. Inf. Technol.*, vol. 25, no. 6, pp. 5149–5165, Nov. 2020, doi: 10.1007/s10639-020-10212-5.
- [2] M. Kumar and G. Kogut, "Students' perceptions of problem-based learning," *Teach. Dev.*, vol. 10, no. 1, pp. 105–116, Mar. 2006, doi: 10.1080/13664530600587295.
- [3] A. Revell and E. Wainwright, "What Makes Lectures 'Unmissable'? Insights into Teaching Excellence and Active Learning," *J. Geogr. High. Educ.*, vol. 33, no. 2, pp. 209–223, May 2009, doi: 10.1080/03098260802276771.
- [4] I. Popil, "Promotion of critical thinking by using case studies as teaching method," *Nurse Educ. Today*, vol. 31, no. 2, pp. 204–207, Feb. 2011, doi: 10.1016/j.nedt.2010.06.002.
- [5] D. P. N. Brata, E. S. Utomo, and S. Sukardi, "The Analysis of Students' Attitudes Construction Based on Pancasila Profile to be Integrated with Teacher's Lesson Plan in Junior High School in Pandemic Era," in 2nd International Conference on Education and Technology (ICETECH 2021), 2022, pp. 313–320, doi: 10.2991/assehr.k.220103.045.
- [6] F. Jannah and R. Fahlevi, "Strengthening The Pancasila Character Values in Forming The Character of Pancasilais Generation," in *Proceedings of the 1st International Conference on Creativity, Innovation* and Technology in Education (IC-CITE 2018), 2018, pp. 77–80, doi: 10.2991/iccite-18.2018.18.
- [7] D. Lebo, B. Pramono, L. Y. Prakoso, H. Risman, and S. Suhirwan, "The Total War Strategy through Optimizing the Understanding of Pancasila Values in the Millenial Era," *J. Soc. Polit. Sci.*, vol. 4, no. 2, pp. 32–40, Jun. 2021, doi: 10.31014/aior.1991.04.02.273.
- [8] R. French, W. Imms, and M. Mahat, "Case studies on the transition from traditional classrooms to innovative learning environments: Emerging strategies for success," *Improv. Sch.*, vol. 23, no. 2, pp. 175–189, Jul. 2020, doi: 10.1177/1365480219894408.
- [9] K. Debevec, M.-Y. Shih, and V. Kashyap, "Learning Strategies and Performance In a Technology Integrated Classroom," J. Res. Technol. Educ., vol. 38, no. 3, pp. 293–307, Mar. 2006, doi: 10.1080/15391523.2006.10782461.
- [10] K. S. Retna, "Thinking about 'design thinking': a study of teacher experiences," *Asia Pacific J. Educ.*, vol. 36, no. sup1, pp. 5–19, Jan. 2016, doi: 10.1080/02188791.2015.1005049.
- [11] Y. Sun and J. Xing, "The Impact of Social Media Information Sharing on the Green Purchase Intention among Generation Z," *Sustainability*, vol. 14, no. 11, pp. 1–22, Jun. 2022, doi: 10.3390/su14116879.
- [12] A. Rocka, F. Jasielska, D. Madras, P. Krawiec, and E. Pac-Kożuchowska, "The Impact of Digital Screen Time on Dietary Habits and Physical Activity in Children and Adolescents," *Nutrients*, vol. 14, no. 14, p. 2985, Jul. 2022, doi: 10.3390/nu14142985.
- [13] S. S. Cahyati, T. Tukiyo, N. Saputra, J. Julyanthry, and H. Herman, "How to Improve the Quality of Learning for Early Childhood? An Implementation of Education Management in the Industrial Revolution Era 4.0," J. Obs. J. Pendidik. Anak Usia Dini, vol. 6, no. 5, pp. 5437–5446, Aug. 2022, doi: 10.31004/obsesi.v6i5.2979.
- [14] D. Ye and S. Pennisi, "Analysing interactions in online discussions through social network analysis," *J. Comput. Assist. Learn.*, vol. 38, no. 3, pp. 784–796, Jun. 2022, doi: 10.1111/jcal.12648.
- [15] M. Soncin and M. Arnaboldi, "Intrapreneurship in Higher Education: The Digital Learning Challenge," *Int. J. Public Adm.*, vol. 45, no. 2, pp. 135–146, Jan. 2022, doi: 10.1080/01900692.2021.2011919.
- [16] H. Westerlund, A. A. Kallio, and S. Karlsen, "Interrogating intercultural competence through a 'pedagogy of interruption': A metasynthesis of intercultural outreach projects in music teacher education," *Res. Stud. Music Educ.*, vol. 44, no. 2, pp. 380–398, Jul. 2022, doi: 10.1177/1321103X211026007.
- [17] H. He, "Design and Implementation of Data Mining Technology in Music Education Platform," in *Proceedings of the 4th International Conference on Innovative Computing (IC 2021)*, 2022, pp. 1493–1498, doi: 10.1007/978-981-16-4258-6 184.
- [18] B. W. Quaglia, "Planning for student variability: Universal design for learning in the music theory classroom and curriculum," *Music Theory Online*, vol. 21, no. 1, Mar. 2015, doi: 10.30535/mto.21.1.6.

- [19] E. S. Tobias, "Crossfading music education: Connections between secondary students' in- and out-of-school music experience," *Int. J. Music Educ.*, vol. 33, no. 1, pp. 18–35, Feb. 2015, doi: 10.1177/0255761413515809.
- [20] E. Concina, "The Role of Metacognitive Skills in Music Learning and Performing: Theoretical Features and Educational Implications," *Front. Psychol.*, vol. 10, pp. 1–11, Jul. 2019, doi: 10.3389/fpsyg.2019.01583.
- [21] F. D. T. Santana, H. Hartono, T. Narawati, A. Cahyono, and R. I. Hapidzin, "Self Expression Art Education Orientation: Art Education for Early Childhood in the Independent Learning Curriculum," *Int. Conf. Sci. Educ. Technol.*, vol. 8, pp. 683–691, Oct. 2022.
- [22] H. Schippers, "Tradition, authenticity and context: the case for a dynamic approach," *Br. J. Music Educ.*, vol. 23, no. 3, pp. 333–349, Nov. 2006, doi: 10.1017/S026505170600708X.
- [23] R. Rizzo, "Knowledge Transmission in Javanese Karawitan: Is It Time for an Ontological Turn?," *Asian Music*, vol. 51, no. 1, pp. 94–117, 2020, doi: 10.1353/amu.2020.0004.
- [24] Z. Zhu, Z. Xu, and J. Liu, "Flipped classroom supported by music combined with deep learning applied in physical education," *Appl. Soft Comput.*, vol. 137, p. 110039, Apr. 2023, doi: 10.1016/j.asoc.2023.110039.
- [25] R. M. Serrano and O. Casanova, "Toward a Technological and Methodological Shift in Music Learning in Spain: Students' Perception of Their Initial Teacher Training," *SAGE Open*, vol. 12, no. 1, pp. 1–16, Jan. 2022, doi: 10.1177/21582440211067236.
- [26] Q. Li, Z. Li, and J. Han, "A hybrid learning pedagogy for surmounting the challenges of the COVID-19 pandemic in the performing arts education," *Educ. Inf. Technol.*, vol. 26, no. 6, pp. 7635–7655, Nov. 2021, doi: 10.1007/s10639-021-10612-1.
- [27] Q. Liu, H. Chen, and M. J. C. Crabbe, "Interactive Study of Multimedia and Virtual Technology in Art Education," *Int. J. Emerg. Technol. Learn.*, vol. 16, no. 01, pp. 80–93, Jan. 2021, doi: 10.3991/ijet.v16i01.18227.
- [28] L. Tuttle and D. Hansen, "Arts education in a virtual learning environment: an introduction to the lessons, policies, budgets and practices from the COVID-19 era," *Arts Educ. Policy Rev.*, vol. 123, no. 3, pp. 115–116, Jul. 2022, doi: 10.1080/10632913.2021.1931600.
- [29] Kasiyan, "Art, art education, creative industry: Critique of commodification and fetishism of art aesthetics in Indonesia," *Cogent Arts Humanit.*, vol. 6, no. 1, pp. 1–11, Jan. 2019, doi: 10.1080/23311983.2019.1586065.
- [30] F. R. Sabol, "Art education during the COVID-19 pandemic: the journey across a changing landscape," *Arts Educ. Policy Rev.*, vol. 123, no. 3, pp. 127–134, Jul. 2022, doi: 10.1080/10632913.2021.1931599.
- [31] M. Haning, "Identity formation in music teacher education: The role of the curriculum," *Int. J. Music Educ.*, vol. 39, no. 1, pp. 39–49, Feb. 2021, doi: 10.1177/0255761420952215.
- [32] G. Spruce, A. Marie Stanley, and M. Li, "Music teacher professional agency as challenge to music education policy," *Arts Educ. Policy Rev.*, vol. 122, no. 1, pp. 65–74, Jan. 2021, doi: 10.1080/10632913.2020.1756020.
- [33] C. E. Aguilar and C. K. Dye, "Developing Music Education Policy Wonks: Preservice Music Education and Policy," *J. Music Teach. Educ.*, vol. 29, no. 2, pp. 78–88, Feb. 2020, doi: 10.1177/1057083719885335.
- [34] M. E. Riaño and A. Murillo Ribes, "Monográfico: Tecnología y Educación Musical," *Rev. Electrónica LEEME*, no. 47, pp. 61–62, Jun. 2021, doi: 10.7203/LEEME.47.20897.
- [35] E. P. Papadopoulos, M. Diamantaris, P. Papadopoulos, T. Petsas, S. Ioannidis, and E. P. Markatos, "The long-standing privacy debate: Mobile websites vs mobile apps," in *Proceedings of the 26th International Conference on World Wide Web*, 2017, pp. 153–162, doi: 10.1145/3038912.3052691.
- [36] T. Särkämö, "Cognitive, emotional, and neural benefits of musical leisure activities in aging and neurological rehabilitation: A critical review," *Ann. Phys. Rehabil. Med.*, vol. 61, no. 6, pp. 414–418, Nov. 2018, doi: 10.1016/j.rehab.2017.03.006.

- [37] K. Lukiyanto and M. Wijayaningtyas, "Gotong Royong as social capital to overcome micro and small enterprises' capital difficulties," *Heliyon*, vol. 6, no. 9, p. e04879, Sep. 2020, doi: 10.1016/j.heliyon.2020.e04879.
- [38] C. R. Stefanou, K. C. Perencevich, M. DiCintio, and J. C. Turner, "Supporting Autonomy in the Classroom: Ways Teachers Encourage Student Decision Making and Ownership," *Educ. Psychol.*, vol. 39, no. 2, pp. 97–110, Jun. 2004, doi: 10.1207/s15326985ep3902_2.
- [39] C. M. Karuppan, "Web-based teaching materials: a user's profile," *Internet Res.*, vol. 11, no. 2, pp. 138–149, May 2001, doi: 10.1108/10662240110695106.