

CREATIVITY AND THE ROLE OF NINIEK DARYONAGORO IN UTILIZING USED GOODS INTO MUSIC IN SURAKARTA

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Abstract

The research entitled "Creativity and Niniek's Role in Utilizing Used Goods into Music in Surakarta" is based on the phenomenon of the emergence of sounds from used goods. Innovation in engineering used goods and arrangement techniques carried out by Niniek are interesting aspects to be studied further. This research uses a qualitative method with a phenomenological approach, with Niniek S.M Daryonagoro as the main subject. To answer the formulation of the problem, this study utilizes Rhodes 4P creativity theory (person, process, press, and product) and the concept of individual roles according to Setyadi. The final stage after going through the analysis found several conclusions. Niniek's background growing up in an art environment played an important role in encouraging her creativity in developing music based on used goods. Niniek's consistency and creativity are reflected in the historical journey of the presence of used goods music. In addition, Niniek's role has been proven to be able to increase the interest of students and the Surakarta community in music, as well as providing indirect education regarding the use of used goods as a music medium through the performances held.

Keywords: *Creativity, Role, Gabage Music*

INTRODUCTION

Niniek Daryonagoro served as an educator at Santa Maria Surakarta Elementary School, now known as Marsudirini Surakarta Elementary School, from 1970 until 1975, when she decided to pause her teaching career to prepare for marriage. Although Niniek was requested to return to teaching in 1985, it was limited to the dance extracurricular. Niniek is the adoptive daughter of Sedijono Djojokartiko Humardani, also known as Gendhon Humardani. Gendhon established the Cultural Students Association in Yogyakarta and served as the head of ASKI (Indonesian Karawitan Arts Academy) in 1974. Thus, Niniek was raised and developed in a family setting with a rich artistic heritage from an early age. Niniek's artistic technique generated innovative concepts in her music derived from used products.

Niniek Daryonagoro was primarily driven to create music using recycled materials in 2004 after an incidental observation of her pupils striking garbage cans and gutters during a break from dancing training.

Niniek saw that the resultant sound was intriguing and has unique musical possibilities. This motivated Niniek to conceive the notion of establishing a percussion ensemble from reused objects that students collected from their homes, such mineral water jugs, used paint buckets, and pot lids. This inspiration arose from an acute awareness of the surrounding noises and the desire to transform them into a creative and educative artistic expression. Niniek established an extracurricular program at Marsudirini Elementary School named Marsudirini Ethnic, which organized Javanese music like Lir-ilir, Padang Bulan, and others. Niniek then renamed the extracurricular activity to "musik ranks" (used materials). There was a teacher accompanying the used materials music who said that finding a teacher to teach used materials music was difficult. Because the knowledge gained is not from school (Rosita Tin Winarni, interview June 5, 2024).

This used goods music extracurricular is extensively showcased in the Surakarta region, encompassing both governmental and non-governmental events such as the Nusantara Bag

Festival, the Nusantara Umbrella Festival, the Car Free Day Anniversary Celebration, and other celebratory occasions pertaining to art and creativity. Niniek's used music goods also competed in many arts and culture-themed events in Surakarta. The contests entered include Hakteknas (National Technology Awakening Day), Kenduren UMKM, and Niniek's used goods music, which was also featured on the TATV television show with the Ngashow program, along with several more performances. Since 2004, Niniek has not only taught at Marsudirini Elementary School but has also extended her influence to many regions in Surakarta. Niniek taught used goods music in numerous schools, including Kanisius 2 Keprabon Elementary School from 2015 to 2020, Warga Vocational School in 2017, Ursulin Middle School in 2015, UNISRI in 2012, and other sub-districts.

Niniek included dance aspects into the used goods music performance by devising innovative choreography distinct from conventional styles, shown by the song "Anoman Obong," which has several moves, with one of her pupils performing as Anoman. Despite facing rejection from the institution that did not endorse used products music, Niniek engaged in SIEM. Consequently, in 2016, Niniek initiated the establishment of a studio at her apartment named Sanggar Sekedar Laras, distinguished by its unique feature of reused materials. Certain items from Niniek's collection of used goods are enhanced for aesthetic appeal, including the transformation of a tin barrel into a tom drum and alterations to other used items. Behind Niniek's creativity, there are also several parents who always support her creativity.

Music represents an artistic expression primarily characterized by auditory elements. Alongside sound, the lyrics of a song contribute to the intricate harmonies in music, articulating emotions such as sadness, joy, anxiety, and even anger. Consequently, music frequently serves as a platform to express themes of oppression, injustice, peace, civil rights, and various social movements. Music represents a multifaceted and ubiquitous aspect of social interaction; each culture possesses its distinct musical expressions (Blacking, 1995: 224 dalam Djohan, 2020: 27).

The rapid development of music in contemporary society presents significant challenges, including a diminishing public consciousness regarding the necessity of preserving and transmitting cultural heritage. One approach to tackle this issue involves nurturing musical creativity (Ayudira, 2024:120). In the same way, Munandar states that creativity encompasses the overall capacity to generate novel

concepts, to offer innovative solutions for problem-solving, or to discern connections between new elements and those that already exist (dalam Tantri, 2024: 113).

One manifestation of musical innovation involves the use of used items. The sustainability of this used-goods-based music is driven by collaborative interactions among the children, who not only apply the scores composed by Niniek but also engage in spontaneous exploration and improvisation. The backing from educational institutions and associated agencies, coupled with chances to showcase performances in official and public venues, plays a vital role in sustaining Niniek's used-goods music.

Although this innovation has potential in the world of music and arts education, there are still several problems that need to be addressed. These challenges include a lack of appreciation for music created from used materials, insufficient availability of musical resources derived from such items, and a general public unawareness regarding the significance of upcycling. As defined by the Big Indonesian Dictionary, upcycling refers to the process of recycling an item for reuse without altering its original form, exemplified by the gallons, plastic barrels, buckets, and iron drums utilized by Niniek in her music crafted from used goods. Despite appearing merely as percussion beats, Niniek demonstrates that music made from used materials can stand on par with other musical forms.

This research aims to offer a fresh viewpoint on the handling of used goods, frequently perceived as waste lacking any value. The innovative transformation of these materials into musical instruments demonstrates that discarded items can be reimagined as valuable contributions to both art and education within the community. Moreover, the significance of the contributions made by creative individuals is highlighted. Niniek Daryonagoro illustrates the potential for educators and artists to act as advocates for social change within schools and communities, transcending age barriers and encouraging analogous movements in various sectors.

The selection of Niniek stems from her remarkable ability and unwavering consistency, even at an advanced age, while she continues to embody the roles of both artist and educator through her innovative use of music derived from used materials. The music of Niniek's used goods, spanning from the past to the present, continues to thrive and is showcased in various locations throughout Surakarta. The rising environmental challenges stemming from

household waste and surplus items highlight the innovative strategies proposed by Niniek Daryonagoro, which offer educational, creative, and culturally relevant solutions. The utilization of used items as musical instruments showcases creativity within the artistic field, while also highlighting the significant contribution of local artists in fostering ecological consciousness and introducing fresh aesthetic values to the community.

This study applies the creativity theory outlined in Rhodes' publication. Creativity is formulated in terms of person, process, press, and product. Creativity can be examined through the personal and environmental factors that foster creative behavior in individuals (Rhodes, 1961). The author incorporates the notion of roles as described by Soerjono Soekanto (Soerjono Soekanto, 2002:243), highlighting that roles represent the dynamic elements of a position. When an individual fulfills their rights and obligations in accordance with their status, they are effectively engaging in a role.

Based on the background that has been explained, the problem formulation can be drawn, namely: (1) How is Niniek Daryonagoro's creative process in utilizing used goods to make music? (2) What is Niniek Daryonagoro's role in developing used goods music in Surakarta?

LITERATURE REVIEW

Mukti Wigati dan Novan Ardy Wiyani's work titled "Teacher Creativity in Making Educational Play Tools from Used Goods" was published in 2020. *As-Sibyan Early Childhood Education Publication Volume 4, Issue 1, June 2019, pages 43-56.* The primary emphasis of this article is on the development of educational play tools (APE) utilizing used materials at TK IT Al Fattah Sumampir Purwokerto. This article explores the innovative approaches of educators in transforming used materials into educational toys specifically designed for young learners in kindergarten. Thus, the key difference lies in the fact that the educator concentrates solely on supplying APE (Educational Play Tools) resources for preschoolers, whereas Niniek places greater emphasis on delivering musical content.

Boy Sus Seno's thesis, titled "Musical Style Creativity in Guitar Playing (Case Study: Guitarist Bobby Budi Santosa)," was completed in 2014 at the Indonesian Institute of the Arts Surakarta, within the Ethnomusicology study program. Features an innovative guitar playing technique developed by Bobby Budi Santosa. Bobby's playing style introduces an

innovative tuning known as crazytune, adding a fresh nuance to the art of guitar playing. This study aimed to explore the elements that contribute to Bobby's attainment of musical proficiency and the formation of his unique musical style. It explored the methods through which Bobby acquired and innovated techniques in guitar playing, as well as identify the techniques he had developed or adapted within his musical expression. This study highlighted a distinct approach, focusing primarily on the creative process involved in producing works that embody the concept of musical style. The author's research focuses on the innovative use of repurposed items to create music, presenting a distinct perspective in comparison to other studies. The researcher confines this study by omitting a discussion on musical style.

Paulus Widjanarko, Suharto, Oka Irmade, and Eka Titi Andaryani titled "STEAM Early Childhood at PAUD IT Insan Cendekia Surakarta," published in 2023. Volume 8, No. 2, (October 2023) of the *Journal of Islamic Education for Early Childhood Pratama Widya* spans pages 196-209. This article discussed educators who implement STEAM in early childhood education. This application of STEAM incorporated used items that serve a purpose in music. At PAUD IT Insan Cendekia, music education encompasses a variety of activities including singing, rhythm recognition, memory exercises, movement, song learning, music listening, and instrumental play. The distinction between this publication and the research undertaken by the author lies in the approach to delivering the utilized musical material, which differs from the methodology used by Niniek.

Dony Setyawan's article titled "Recycle: From Trash to Sound (A Study of Music Creation by the Wayang Sampah Group in Surakarta)" was published in 2019. *Sorai Journal: Music Study and Creation, Volume 12, Issue 1, August 2019, pages 1-11.* The work was driven by the occurrence of sound produced by musical instruments crafted from discarded materials. The study of organological engineering related to waste presents a fascinating area of exploration. The article explored experiments involving puppets and their musical instruments crafted from recycled materials, while also addressing the use of secondhand items in Surakarta. Nonetheless, the approach to use second-hand items diverges from the one implemented by Niniek, specifically the upcycle technique.

Fadillah Al-sarda's thesis, titled "Creation of Costume Design for the Musical Drama Performance Encanto by Charise Castro Smith and Jared Bush Using the Upcycle Fashion Method," was completed in 2025

at the Indonesian Institute of the Arts Yogyakarta, within the Theater Study Program. This thesis analyzed the development of the Upcycle Fashion method as a means to repurpose used clothing from previous performances into innovative, distinctive, and eco-friendly garments. The application of upcycling by the creators aims to minimize textile waste and lower production costs, demonstrating that innovation in fashion design can thrive without reliance on new materials. The findings are anticipated to enhance the sustainability of the theater sector while simultaneously elevating the audience's visual experience, all without compromising the core essence of the performance. The distinction between this thesis and the author's research lies in the emphasis on costumes derived from second-hand materials through upcycling, whereas the research centers on the creative aspects of upcycling as expressed through music.

In 2022, Paulinus Tibo, Maria Elpina Padang dan Regina Sipayung published a work titled "The Role of Teachers in Realizing Vocational Skills in Creatively Utilizing Used Goods for Children with Mental Disabilities During the COVID-19 Pandemic at Karya Tulus Special School C." Volume 2, No. 1, March 2022, pages 51-61. This article discussed how teachers had embraced their responsibilities during online learning amid the COVID-19 pandemic, effectively enhancing the use of recycled materials through vocational skills activities in schools. They have taken on roles as guides, encouragement for creativity among children with mental disabilities, and innovators in their teaching approaches. The process is facilitated as the child's parents provide guidance for learning from home. While both teachers and Niniek share the same function in employing recycled materials to foster children's creativity, the Niniek's involvement in education does not specifically address the learning needs of children with mental disabilities.

Saripah's thesis from the Auliaurasyidin Islamic College of Tembilahan Riau, within the Early Childhood Islamic Education Study Program, is titled "The Role of Teachers in Developing Creative Learning Media from Natural Materials and Waste Materials in Az-Zahra Teluk Jira Early Childhood Education," completed in 2021. This study revealed that educators are capable of fulfilling their responsibilities as planners, developing media, and assessing the effectiveness of learning resources.

While the explanation of the role remains consistent, this thesis distinguishes itself from the researcher by emphasizing that teachers are confined to delivering education to PAUD children, rather than disseminating it in the manner that Niniek did in Surakarta.

Bagus Susetyo's work titled "Addition of Used Waste to Increase Creativity and Innovation of Musical Equipment in the Music Ensemble Course in the Music Arts Education Study Program, Department of Sendratasik, Faculty of Languages and Arts, Semarang State University" was published in 2018. Volume 7, Issue 2 of the Music Arts Journal, published in November 2018. This work did not address the creation of repurposed musical instruments, whereas this research thoroughly explains each utilized item.

Shelly Pratiwi's publication titled "Utilizing used goods as simple musical instruments to hone the musical intelligence of early childhood during the Covid-19 pandemic" was released in 2021. *Interlude Journal: Indonesian Journal of Music Research, Development, and Technology*, Volume 1, Issue 1, November 2021, pages 1-11. This article outlined various second-hand items utilized in educational settings. Unlike the approach taken by Niniek, which primarily focuses on utilized percussion instruments.

METHOD

The author utilizes qualitative methods grounded in a phenomenological approach to explore the research process surrounding creativity and Niniek's contribution to transforming used goods into music. Cresswell (2014), describes phenomenology as a research approach where researchers explore human experiences related to a specific phenomenon. Through this exploration, the researcher articulates the symptoms that arise from the subjects' experiences. The phenomenological approach is a study that explores human experiences related to a specific phenomenon that is consciously perceived. Qualitative approaches are frequently employed in research strategies, as they are deemed highly effective for comprehending the subject under investigation and facilitate the discovery of pertinent data or information. To facilitate the explanation of a problem that needs to be addressed in the formulation, the author employs a descriptive approach (Moleong, 1997: 2-12).

RESULT AND DISCUSSION

Niniek Daryonagoro's Journey

The name Niniek originates from her full name, Niniek Sri Martinah Daryonagoro. Her birth took place on August 26, 1969, in the city of Surakarta. Niniek has eight siblings from her biological family and two siblings from her adoptive family. Niniek was born to Kanjeng Pangeran Daryonagoro and Raden Ayu Sri Kayatinah Daryonagoro. Niniek was taken in by her biological mother's brother, Sedijono Djokokarto Humardani, commonly known as Gendhon Humardhani. Due to the absence of children in Gendhon's life, he chose to adopt two daughters from his elder sister, Sri Kayatinah Daryonagoro. Niniek Sri Martinah was the name of the elder child, while her younger sister was called Tantien Sri Marwanti. Niniek entered into matrimony with FX Moedjito Soma Prawiro BE in 1976. He was born in Tulungagung on December 26, 1941. Niniek entered into marriage at the age of twenty-seven, whereas FX Moedjito Soma Prawiro BE did so at the age of thirty-five.

Niniek's educational history began when she was five years old, studying at Kindergarten and BOPKRI Elementary School in Jogja but only up to grade 1. Niniek's educational journey commenced at the age of five, attending Kindergarten and BOPKRI Elementary School in Jogja, although her time there was limited to grade 1. Niniek subsequently relocated to Solo, where she pursued her education at Pamardi Putri Elementary School, an institution situated within the palace grounds. After just a year, Niniek relocated once more to Jogja and enrolled in the Marsudirini Foundation, attending Marsudirini Intermerata Elementary School in Yogyakarta until her graduation. Niniek completed her studies at Marsudirini Intermerata Elementary School in Yogyakarta in 1963. She then pursued further education at Imakulata Marsudirini Junior High School, although she attended only until the second grade. Niniek relocated to Semarang to accompany her parents and pursued her education at Maryagoreti Marsudirini Junior High School in the city.

Niniek graduated from Maryagoreti Marsudirini Junior High School in Semarang and subsequently pursued her studies at the Teacher Training School (SPG), now equivalent to SMK (Vocational High School), at Santo Fransiscus Semarang, which is under the same foundation as Marsudirini, in 1967. Initially, Niniek was reluctant to attend teacher training school, largely due to the influence of Gendhon Humardhani, who had aspirations for her to become a teacher. This

was particularly significant that year, as there was a shortage of educators due to the PKI (Indonesian Communist Party) taking many teachers away. Following that, Niniek dedicated herself to the field of education, taking great pride in her role as a teacher. Niniek completed her studies in 1969, following her graduation from SPG. Niniek subsequently began teaching at Marsudirini, which previously comprised three schools: Santa Maria Elementary School with two classes, Yoseph Elementary School with one class, and Santa Clara Elementary School with one class. In 1977, the institutions were consolidated to form what is now known as Marsudirini Elementary School, previously recognized as Santa Maria Elementary School Surakarta. During her teaching career, Niniek pursued her studies at the Junior High School Teacher College (PGSLP), which is currently recognized as a Diploma program. Nonetheless, it remained unfinished because there was insufficient time dedicated to instruction and education.

Prior to her involvement with used goods music, Niniek cultivated a passion for dancing, a pursuit she continues to share with her students through teaching. Karawitan was confined to fluency (Niniek S.M Daryonagoro, interview March 26, 2025). Niniek noted that engaging in her hobby marked the inception of nurturing her talent and creativity. Since Niniek served as an educator at Marsudirini, she dedicated her skills and passions to afternoon activities like dance, karawitan, and choir without compensation in 1973. While Niniek was already engaged in her teaching career, she received piano and guitar lessons from a student from Malaysia, who had been introduced by Gendhon.

Niniek received training from Gendhon in playing gender and rebab; however, her focus has shifted more towards mastering karawitan. Niniek's preference for Karawitan stems from her deep-rooted connection to it, cultivated during her childhood alongside her father. From a young age, Niniek engaged in karawitan activities, allowing her to adapt to the rhythms being played. The strokes inspired Niniek to engage with her music created from used goods. (Niniek S.M Daryonagoro, personal communication, March 26, 2025). The development of Used Goods Music in Surakarta should be pursued within academic institutions, particularly across various schools. Niniek, as an initiator as a teacher of used goods music, is delighted when her music is required by academic institutions. She has been invited to teach at several schools, including Marsudirini Elementary School & Kindergarten, Kanisius 2 Keprabon Elementary School, Warga Vocational School, Regina Pacis Junior High School (Ursulin), and UNISRI (Slamet Riyadi University).

Ninieck's position as an used music instructor encompasses not only the educational setting but also the broader community. She instructs Rangkas music across different regions of Surakarta, such as Carikan and Kadipiro. Additionally, she established a collective of grandmothers who perform music sourced from secondhand materials (Ninieck S.M. Daryonagoro, interview, March 26, 2025).

The concept of role encompasses a defined set of expectations associated with individuals occupying specific positions within society, forming an integral aspect of the primary responsibilities that must be fulfilled. The responsibilities and entitlements associated with the position are outlined, emphasizing that the role is characterized by dynamic elements manifested through various action patterns, both abstract and concrete, as well as every status present within the organization (Kamus Besar Bahasa Indonesia, 2007:845; Nasution (1994:237); Setyadi (1986:29) dalam Aya, 2013). This statement suggests that the concept of role aligns with an individual's behavioral pattern, which serves as a defining characteristic for all individuals occupying a specific job or position (Oemar, 1992: 33).

Ninieck Daryonagoro's Used Goods Music

In 2004, Ninieck began the creation of a music ensemble utilizing instruments crafted from used materials, including gallon jugs, buckets, trash cans, oil drums, and a variety of other discarded items. The concept emerged spontaneously as Ninieck observed her students striking trash cans and gutters, generating distinctive sounds. This inspired her to weave these auditory elements into a musical composition (Ninieck S.M. Daryonagoro, interview, October 23, 2023). Ninieck conducted an experiment where she asked her students to bring in used items, providing specific guidelines on the types of items to collect, including gallon jugs, buckets, trash cans, and textured glass bottles that create various sounds when rubbed. This highlighted the Rhodes 4P creativity aspect concerning products or offerings in the context of utilized music. The collection of musical instruments included a trash can, three gallon jugs, two buckets, two Fanta bottles, and two pot lids. During the early phases of the experiment, Ninieck employed singing as the fundamental melody. Subsequently, once the beat was considered satisfactory, Ninieck incorporated the pianica into the mix. Following this, the belira took the place of the pianica due to its louder sound, which alleviated the strain on students required to play the pianica for extended periods, sometimes lasting between 30 to 60 minutes (Ninieck S.M. Daryonagoro, interview, June 19, 2025).



Figure 1. Rangkas music using a pianica
(Source: Marsudirini, 2012)

Ninieck utilizes a pedagogical approach that integrates the performance of musical instruments with choreographed movements. The choreography used in the performances utilizing used materials is straightforward and tailored to align with the specific qualities of the accompanying music. These movements include movements resembling the character Anoman in the song "Anoman Obong" and holding a gallon jug with one hand, mimicking the act of searching.



Figure 2. Dance movements
in the song Anoman Obong
(Source: Personal document, 2025)

The Sekedar Laras utilized goods music studio was established as a response to the lack of support from Marsudirini Elementary School for Rangkas music's participation in competitions, following a change in leadership at the school. Consequently, Ninieck established a studio in her residence, named Sanggar Sekedar Laras. The establishment of this studio is pertinent to Rhodes' 4P creativity theory regarding the influence of pressure on Ninieck, which began with rejection but evolved into the development of her innovative concepts. The concept under discussion revolves around used items, which emerged from the encouragement placed on Ninieck to engage in the Haktekmas competition. This event aimed to showcase her innovative spirit through the transformation of used materials. The players were chosen from the utilized music extracurricular program at Marsudirini Elementary School, taking into account the backing of

students' parents for the used goods music initiative. This studio has engaged in competitions on two occasions, achieving victory, and has showcased its performances at various venues in Surakarta. The members of this group, despite having graduated from Marsudirini, continue to engage actively with the Sekedar Laras music group. This studio is operated by the parents of the students, with Niniek exclusively instructing on the music materials that are pre-owned. The Sekedar Laras group, a redefined music ensemble, maintains an engaging Instagram presence to share its developments. The Instagram handle for the group is @sekedarlaras. The group can accommodate a maximum of 15 participants, as Niniek is concerned about the potential for overwhelm in presenting the material.

Niniek Daryonagoro's Creativity in Developing Music from Used Goods

The development of used materials music Niniek engages in the modification of used items and the arrangement of various regional songs, national anthems, and regional pop music. The development of Niniek's music crafted from used goods is articulated through her innovative concepts by transforming tin barrels. Niniek altered this tin barrel in 2016 to serve as a substitute for the tom drum. Niniek's modification of the tin barrel was primarily driven by Sanggar Sekedar Laras's desire to emphasize the theme of music created from used goods during the Haktekmas competition in 2016. This tin barrel was formerly utilized in the musical compositions of SD Marsudirini's Rangkas, serving as an accompaniment to the drums.

The primary component utilized in this used music is a 50-liter tin barrel sourced from Kabangan Market. The barrel measures 45 cm in length and features a hole with a width of 35 cm, equivalent to 14 inches. A tin barrel was acquired alongside a plastic barrel to fulfill the requirements of the Studio. The choice of the tin barrel was influenced by its material properties and size, which were considered suitable for conversion into percussion instruments. Subsequently, Niniek sought assistance from Suci, a parent of one of the Studio's students, to transport the tin barrel to a welding shop.

At this point, perforations are made at the base of the tin barrel and along the sides for the placement of lugs at six designated locations on both the top and bottom, maintaining a spacing of 25 cm between each hole. Upon completion of the drilling process, the tin barrel is transported to a service center where a 14-inch diameter drum ring and an equally sized drum mica are installed on the modified barrel. The

installation of the ring involves the use of 10 bolts, each measuring 80 mm, which are to be secured into the lugs. The sound tuning process is subsequently conducted at the Solo Sport & Musik shop, ensuring that the instrument emits a sound akin to that of a tom.

The tuning procedure is executed with a 10-gauge key, employing the identical technique utilized for conventional drum tuning. Adjusting is straightforward, yet adheres to a systematic approach of securing the fasteners: for instance, the right side is rotated two times, followed by the opposite side being rotated two times as well. The tension of the bolt is subsequently re-evaluated and modified to attain the intended auditory quality. (Yusuf, personal communication, July 8, 2025) Nonetheless, the acoustic properties of the sound generated by this tin barrel resemble those of a floor tom.



Figure 3. Modified tin barrel
(Source: Personal Document, 2025)

Niniek used materials sourced from the school warehouse, incorporating equipment that had been utilized in dance and marching band extracurricular activities. A selection of various used musical instruments was made to enhance the auditory diversity of the ensemble composed of used materials she was creating. Niniek's collection of instruments showcases innovation and deviates from conventional beat arrangements. Niniek carefully chose students to play the instruments, considering their skill in producing beat patterns that aligned with the songs being performed. The materials utilized comprised small jimbe drums sourced from the dance extracurricular activity, alongside cowbells, Teflon tape, tambourines, tom drums, and iron stands obtained from the drum band. Niniek sought assistance from the school staff to properly affix the instruments to the vintage drum band stands. A central hole was created in the Teflon tape to enable

the instruments to generate a harmonious sound upon impact, akin to the operation of a cymbal. The jimbe was affixed using wire that was wrapped around the stand (Sardi, interview, July 8, 2025). The range of sound qualities generated by these instruments is notably varied.



Figure 4. Modified used musical instruments
(Source: Personal document, 2025)

Niniek repurposed a discarded chair from Marsudirini Elementary School that had fallen out of use. She entrusted it to the school janitor, known as Pak Bon, for alterations in line with her specifications. The chair features a plastic construction and includes a central hole. Niniek selected this chair as it aligned perfectly with her requirements. The gallon jug stand serves to stabilize the gallon jug during impacts, enabling the hitter to concentrate on the material being delivered. A pipe with a diameter of 5 inches served as the primary material, and its length was assessed by inserting the end of a gallon jug for measurement purposes. The pipe was subsequently trimmed to a length of 11 cm, ensuring that the gallon jug could maintain a stable position without any wobbling. The terminal section of the pipe was scorched by 2 cm to enable lateral movement, allowing the pipe to serve as a structural support for the chair's upper portion. The installation of the pipe was accomplished with the use of four screws, each measuring 3 cm in length. A 5-inch diameter PVC pipe cap was used to securely close the bottom of the pipe, ensuring a tight seal. (Interview conducted with Sardi on July 8, 2025). Niniek posits that the closure of the pipe had no impact on the sound generated.



Figure 5. Modified used chair
(Source: Personal document, 2025)

Structures composed of iron and wood are particularly designed for various categories of utilized items, including plastic barrels, tin barrels, wooden gongs, and frying pans. The purpose of these stands is to ensure the instruments remain stable and do not shift while in operation. Niniek created the iron stands by collaborating with a carbide welding workshop, which was tasked with fabricating supports tailored to the requirements of various items, including plastic barrels, tin barrels, and frying pans. Niniek transported the used materials to the welding workshop, where she proceeded to weld them, making necessary height adjustments to accommodate the students who would be using them. In the interim, the wooden stands were crafted from used school desks, which Niniek utilized to create the supports for the wooden gongs, with assistance from a school official named Sardi. The construction of the two stands required approximately a week to complete, as the work was undertaken solely during available leisure hours. The dimensions of the stands were modified to accommodate the size of the gongs intended for installation. Rubber tires were employed as fasteners, nailed to the stands, to ensure that the gongs remained secure and did not fall when struck. The elevation of the stands was modified to align with the seating posture of the students when positioned on compact chairs like stools. Prior to utilizing the iron stands, Niniek relied solely on small chairs to support the tin and plastic barrels.



Figure 6. Plastic barrel stand
(Source: Personal document, 2025)

In a musical ensemble utilizing used materials, two kentongan are employed to create variations of the sounds "tek" and "tuk". The sound known as tek is generated by a kentongan measuring 30 cm, whereas the tuk sound originates from a kentongan that is 37 cm in length. The material utilized for the kentongan at the elementary school level is wood, whereas at the kindergarten level, bamboo is used. The variation in materials results in distinct sound color characteristics, with the wooden kentongan generating a louder and more resonant sound compared to the bamboo kentongan. The method of playing the kentongan involves striking the center of the resonance hole in alternating directions.



Figure 7. Wooden kentongan
(Source: Personal document, 2025)

The gallons used are constructed from polycarbonate (PC), exhibiting a relatively rigid texture upon impact, unlike those made from PET (Polyethylene Terephthalate), which possess a more pliable nature. The selection of PC gallons is determined by the material's hardness, which enables it to generate a loud and solid sound when struck with a wooden drumstick. On the other hand, striking the bottom of the gallon with a foam beater will yield a rich and resonant "dung" sound. The dimensions of this gallon are a height of 40 cm and a width of 25 cm.

The method for engaging with the gallon involves striking the side of its neck to create a "tek" sound, whereas the "dung" sound is generated by hitting the bottom of the gallon.



Figure 8. Gallon used by Niniek
(Source: Personal document, 2025)

The container utilized was a 25-liter used paint bucket sourced from Kabangan Market. The bucket is constructed from polypropylene (PP), a plastic widely utilized in the manufacturing sector for buckets because of its exceptional properties. The dimensions of the bucket are 40 cm in height and 30 cm in width. The auditory output generated by the bucket is characterized by a density that is notable, yet it lacks the intensity found in other utilized instruments. The impressive technique applied to the bucket is executed on both the sides and the underside.



Figure 9. Bucket used by Niniek
(Source: Personal document, 2025)

A 20-liter plastic barrel is used as the bass instrument. The design of the barrel is rectangular instead of round, which enhances stability and facilitates the player's grip, ensuring it remains secure during use. The dimensions of the plastic barrel are 120 cm in length and 30 cm in width. The composition of the barrel consists of high-density polyethylene (HDPE). The sound produced is characterized by a resonant and deep quality when struck on the side,

whereas striking the bottom yields a tone akin to that of a gallon jug, yet deeper and thicker. The method used for hitting the plastic barrel resembles that of a bucket, specifically by striking both the sides and the bottom to generate different variations of "dung" and "deng" sounds.



Figure 10. Plastic barrel used by Niniek
(Source: Personal document, 2025)

The frying pan featured in Niniek's collection of used goods is crafted from iron and exhibits a concave shape. The pan is affixed to an iron stand, allowing for stable positioning in an inverted orientation. The elevation of the stand for this pan measures 10 cm on every side. The dimensions of the pan are 25 cm in diameter with a concave depth of 6 cm. The method of striking the pan involves using a plastic beater of "belira" to hit the bottom surface of the pan. The utilized Fanta bottle features a wavy texture and stands at a height of 35 cm. The method involves using the body of a spoon to glide over the texture of the bottle.



Figure 11. The frying pan and Fanta bottle
used by Niniek
(Source: Personal document, 2025)

At beginning, Niniek attentively listened to the song that was to be arranged, progressively crafting the ensemble's beat pattern thereafter. The organization of the process commenced with

identifying the rhythmic pattern on the belira, followed by the incorporation of beats on the gallon and other used instruments. The rhythmic inspiration was derived from traditional beat patterns like the klothekan, which were subsequently enhanced by addressing areas of the beat that were perceived as insufficient, resulting in a more cohesive and harmonious composition. Prior to the current use of beaters, Niniek utilized spoons as beaters in the used music ensemble. In the arrangement of the initial piece, "Padang Bulan", Niniek provided guidance to the students through vocal cues like "tek", "dung", "deng", and "tuk" to instruct them on striking the desired sound source. Niniek not only offered verbal instructions but also showcased the technique of striking the musical instruments, facilitating a clearer understanding and imitation of the movements for the students. Subsequently, all beat patterns were combined and performed concurrently, allowing Niniek to discern sections that required enhancement or modification to achieve the ideal sound harmoniously. The consolidation of this beat technique necessitated three meetings. Niniek uses visual signals, including a clenched fist to indicate a stop, an index finger to denote a strike, and wiggling fingers to signify a cymbal hit. Following the addition of the belira instrument, Niniek dedicated time to train two students to play the belira at separate intervals. Once they were deemed proficient enough, the two students were then combined into a used goods music group.

In the learning process, Niniek provides material on basic hitting patterns and variations, where variations are given to students who are considered proficient and able to play the instrument well. The implements utilized for each musical instrument differ, such as: kentongan and buckets employing sticks akin to belira, kethuk utilizing wooden beaters wrapped in tire rubber, barrels and gallons featuring beaters resembling those found in a marching band, while gallons may also employ drumsticks as beaters.

Regional songs frequently featured in Rangkas music include Padang Bulan, Suwe Ora Jamu, Ngarsopuro, Bengawan Solo, Anoman Obong, and others. The selection of songs consistently appears at the opening of the used music program. At times, the pieces are arranged in order, Anoman Obong followed by Ngarsopuro. Nevertheless, there are instances where they may not be arranged in order, and at times, only a single one is showcased. These three tracks consistently appear.

National melodies are another repertoire that is performed. National songs consistently play a role in various performances, regardless of whether it is a

national holiday. The repertoire features "Tanah Air," "17 Agustus," along with additional national songs. Niniek clarified that the sequence of presentation is established prior to the performance and is interspersed with other songs. The final repertoire, always presented at the end of the performance, is a regional pop song. Niniek states that this performance serves a distinct aim: to rejuvenate regional pop songs that are currently in vogue. The repertoire features selections such as "Taman Jurug," "Koyo Jogja Istimewa," among others.

The notation presented indicates that the belira melody adheres to a 4/4 rhythmic structure. The utilized scale system is C Major. In the belira melody game above, it also shows that there are no complicated melodic lines, this is adapted to the abilities of the belira players, who incidentally are children with musical abilities that are not at an advanced level. The creation of the belira melody serves as the fundamental basis for the used goods music performance featured in the song Padang Bulan.



Figure 12. Barcode transcript of notation and video of playing the song Padang Bulan second-hand music (Source: Personal document, 2025)

CONCLUSIONS

The exploration of used items as musical instruments originated with Niniek's journey of uncovering melodies from refuse bins and drainage systems. This inspired Niniek to engage her students in experimenting with used items as musical instruments. In the face of initial skepticism from her environment, Niniek progressively showcased her creativity by modifying instruments and formulating original musical arrangement concepts. Niniek, through unwavering commitment and perseverance, consistently advanced the concept of music utilizing used materials, leading to a multitude of performances and involvement in various competitions in Surakarta. Niniek consistently aims

to communicate themes concerning environmental matters in every performance. The selection of used goods that Niniek uses is confined to those that can function as percussion instruments. The harmonized sounds produced are competitive with traditional music, showcasing Niniek's innovative approach to transforming used goods into musical instruments within the context of upcycling. Furthermore, Niniek's initiative in the area of used goods music extends beyond a single educational institution. Niniek has effectively shared her musical creativity with a range of schools and community organizations in Surakarta. Five educational institutions have been engaged in music lessons utilizing used materials, while three community organizations have benefited from Niniek's guidance. Niniek's proactive involvement has heightened both student and community engagement in music, simultaneously offering an indirect educational experience regarding the use of used materials as musical instruments.

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- Ninieki Sri Martinah Daryonagoro (75 tahun), penggagas musik rangkas di Surakarta, Jl. Gajah Suranto, Gajahan, Kec. Ps. Kliwon, Kota Surakarta, Jawa Tengah.
- Nicho (11 tahun), murid SD Marsudirini yang mengikuti ekstrakurikuler musik rangkas, Jl. Gajah Suranto, Gajahan, Kec. Ps. Kliwon, Kota Surakarta, Jawa Tengah.
- Andwi Wulandari (33 tahun), orang tua murid Samuel Joseph yang mengikuti Sanggar Sekedar Laras.
- Rosita Tin Winarni (50 tahun), guru pendamping musik barang bekas TK Marsudirini Surakarta.
- Yusuf (53 tahun), Pemilik toko Solo Sport & Musik
- Sardi (55 tahun), Pembantu Sekolah SD Marsudirini Surakarta