

Application of Android-Based Learning Media in Keroncong Course

Abdul Rachman¹, Wadiyo Wadiyo¹, Udi Utomo¹, Suharto Suharto¹, Loo F. Ying²,
Lee F. Hsu², Aji Purwinarko¹, Hery Supiarza³

¹ Universitas Negeri Semarang, Semarang, Indonesia

² Universiti Malaya, Kuala Lumpur, Malaysia

³ Universitas Pendidikan Indonesia, Bandung, Indonesia
dulkemplinx@mail.unnes.ac.id

Abstract. Keroncong music is group music consisting of five main instruments: bass, cello, cak, cuk, and guitar, where the accompaniment pattern between the instruments is interlocked. This study aims to determine the application of Android-based learning media in Keroncong courses. The research methodology for this study was research and development. The research procedure used a level 2 development research model, namely testing existing products. The subjects in this study were keroncong courses. At the same time, data collection instruments used questionnaires given to material experts, media experts, and lecturers to test the quality of android-based learning media and student response questionnaires to determine the interest/response of students to the learning media used. The results show that the application of android-based learning media in the Keroncong course is by playing audio backing tracks of keroncong accompaniment patterns of ‘engkel’ and ‘double’ in the material of playing ‘engkel’ and ‘double’ accompaniment patterns, playing backing tracks of Keroncong accompaniment to the Langgam song “Bengawan Solo” in the material of accompanying the Langgam Keroncong song, playing audio backing tracks of the song “Kr. Tanah Airku” on the material of accompanying the original Keroncong song, playing the audio backing tracks of the song “Stambul Jampang” on the material of accompanying the Stambul I song, and playing the audio backing tracks of the song “Stambul Baju Biru” on the material of accompanying the Stambul II song.

Keywords: Application, Learning Media, Android, Keroncong.

1 Introduction

According to some experts, keroncong music is original Indonesian music, which is influenced by Portugal. This music consists of seven main instruments, namely the guitar, cak and cuk (ukulele), plucked cello, contrabass, flute, and violin. Keroncong music is identical to its very unique accompaniment pattern, which is composed of each instrument, namely bass, cello, cuk, cak, and guitar, which influence each other to form a dynamic rhythm [1], [2], [3], [4], [5], [6].

Universitas Negeri Semarang, as a conservation-minded university with an international reputation, is determined to apply the principles of protection,

preservation, and sustainable use of natural resources and cultural arts and have an environmentally friendly insight [7], [8], [9], [10], [11]. Capturing this vision, the Music Arts Education study program includes keroncong music in the curriculum as an effort to preserve keroncong music, and keroncong is an elective course that can be taken by students in the sixth semester [12].

However, in the implementation of learning activities, keroncong courses have several significant obstacles, including those related to the characteristics of keroncong music, namely a group music performance (non-individual) consisting of five main instruments such as bass, cello, cak, cuk, and guitar where the accompaniment pattern between one instrument and another is interlocked. The characteristics of this interlocking accompaniment pattern are the main obstacle during the learning, training, and performance process because it requires the presence and completeness of all players; if one player is not present, it will affect the accompaniment pattern of other instruments, which causes the learning, training, and performance process not to go well.

Artanto states that the literature discussing the minus-one design as an alternative accompaniment is still very limited, especially for the seven instruments. Then, the result of his research is that minus one with multitrack recording can be an alternative to still being able to carry out keroncong music activities, especially in terms of music learning, despite the COVID-19 pandemic [13]. Further research by Varisandi presents that with the development of current technology, it is possible to develop learning media to increase students' appreciation of keroncong music. The results show that the use of audio-visual media has succeeded in increasing students' appreciation of keroncong music so that the existence of keroncong music is sustainable [14].

Based on previous studies, it can be seen that research on the application of android-based learning media in the Keroncong course has never been done, so it is necessary to research the use of android-based learning media that can be a solution for the smooth learning process and the achievement of learning objectives with the assumption that students can practice independently using the android application considering that currently, android has become a part of life across generations.

2 METHODS

This study used the Research and Development method at level 2 design, which is research that does not make product designs through research but only validates or tests the effectiveness, efficiency, and practicality of using existing products [15], [16].

The product that was tested in the form of learning media for keroncong courses in the form of Android-based media, namely the DKERONCONG application in which there are features such as (1) Forms and characteristics of Langgam keroncong and original keroncong songs; (2) Partitures of 'engkel' and 'double' keroncong accompaniment patterns on Langgam keroncong and original keroncong songs; (2) Backingtrack/minus one of bass, cello string, cuk, cak, guitar instruments; (3) Live performance audio record features that can be utilized by lecturers and students which have implications for achieving learning objectives.

After knowing the potential and problems in this research, the next step was to collect various information that can be used to overcome problems through research. The research information was collected through observation, interviews,

questionnaires, and documentation.

3 Results and Discussion

In this section, we will discuss the application of the android-based learning media developed by the researchers, namely DKERONCONG, on the practice material of playing 'engkel' and 'double' accompaniment patterns only.

3.1 Application of the Android-Based Application 'DKERONCONG' in the Practice Material of Playing 'Engkel' and 'Double' Accompaniment Patterns

In this material, the objective is for students to be able to play 'engkel' and 'double' accompaniment patterns using bass, cello, cuk, cak, and guitar instruments. This means that each instrument has its accompaniment pattern.

The 'engkel' accompaniment pattern. The 'engkel' accompaniment pattern on the bass instrument is to play tones according to the chord with a value of $\frac{1}{2}$ s filling in the first and third beats, the cello is to play chord descriptions with a value of $\frac{1}{16}$ s but filling in syncopated beats, the cuk is to play chords or chord descriptions with a value of $\frac{1}{16}$ s, and the cak is to play chords with a value of $\frac{1}{16}$ s but filling in syncopated beats.



Fig. 1. The 'engkel' accompaniment pattern

In the implementation of the practice of playing this 'engkel' accompaniment pattern, the lecturer of the keroncong course explained the 'engkel' accompaniment pattern for each Keroncong instrument, namely bass, cello, cuk, and cak, and demonstrated them.



Fig. 2. The Learning Implementation of the Keroncong Course

Furthermore, students play the accompaniment pattern one by one with the following stages:

Bass instrument. At this stage, the lecturer demonstrated the '*engkel*' accompaniment pattern using the bass instrument. The lecturer played the bass instrument with the accompaniment of the audio backing track. After the lecturer demonstrated the bass instrument, the students tried to play the bass instrument using the DKERONCONG application through their respective smartphones. Students prepare a bass instrument, smartphone, and earphones. Students click on the audio backing track of the bass instrument on the smartphone and click the play button; then, the bass audio backing track will play. Students play the bass accompaniment pattern according to the audio backing track played in the application.



Fig. 3. Practice using a bass instrument

Cello instrument. At this stage, the lecturer demonstrated the '*engkel*' accompaniment pattern using the cello instrument. The lecturer played the cello instrument with the accompaniment of the audio backing track. After the lecturer demonstrated the cello instrument, the students tried to play the cello instrument using the DKERONCONG application on their respective smartphones. Students prepare cello instruments, smartphones, and earphones. Students click on the audio backing track of the cello instrument on the smartphone, click play, and then the cello audio backing track will play. Students play the cello accompaniment pattern according to the audio backing track played in the application.

Cuk instrument. At this stage, the lecturer demonstrated the '*engkel*' accompaniment pattern using the cuk instrument. The lecturer played the cuk instrument with the accompaniment of the audio backing track. After the lecturer demonstrated the cuk instrument, students tried to play the '*engkel*' accompaniment pattern on this cuk instrument using the DKERONCONG application through their respective smartphones. Students prepare a cuk instrument, smartphone, and earphones. Students click on the audio backing track of the cuk instrument on the smartphone, click play, and then the cuk audio backing track will play. Students play the cuk accompaniment pattern according to the audio backing track played in the application.

Cak instrument. At this stage, the lecturer demonstrated the ‘*engkel*’ accompaniment pattern using the cak instrument. The lecturer played the cak instrument with the accompaniment of the audio backing track. After the lecturer demonstrated the cak instrument, the students tried to play this instrument using the DKERONCONG application through their respective smartphones. Students prepare a cak instrument, smartphones, and earphones. Students click on the audio backing track of the cak instrument on the smartphone, click play, and then the cak audio backing track will play. Students play the cak accompaniment pattern according to the audio backing track played in the application.

Guitar instrument. At this stage, the lecturer demonstrated the ‘*engkel*’ accompaniment pattern using a guitar instrument. The lecturer played the ‘*engkel*’ accompaniment pattern of the guitar instrument with the accompaniment of the audio backing track. After the lecturer demonstrated the accompaniment pattern with the guitar instrument, the students tried to play the ‘*engkel*’ accompaniment pattern on this guitar instrument using the DKERONCONG application through their respective smartphones. Students prepare a guitar instrument, smartphone, and earphones. Students click on the audio backing track of the guitar instrument on the smartphone, click play, and then the guitar audio backing track will play. Students play the guitar accompaniment pattern according to the audio backing track played in the application.

3.2 The ‘double’ accompaniment pattern

The ‘double’ accompaniment pattern on the bass instrument is to play tones according to the chord with a value of $\frac{1}{2}s$, filling the first and third beats; the cello is to play a chord description with a value of $\frac{1}{32}s$ but filling in the syncopated beat, the cuk is to play a chord or chord description with a value of $\frac{1}{32}s$, and the cak is to play a chord with a value of $\frac{1}{16}s$ combined with $\frac{1}{32}s$ but filling in the syncopated beat.

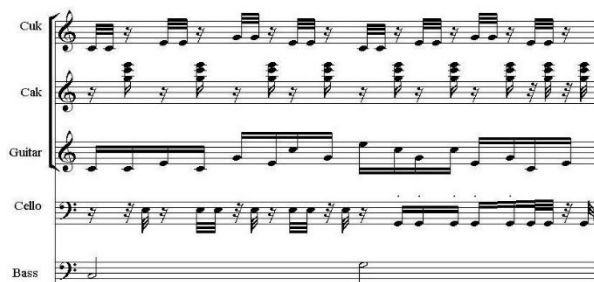


Fig. 4. The ‘double’ accompaniment pattern

In the implementation of the practice of playing ‘double’ accompaniment patterns, the lecturer explained and demonstrated ‘double’ accompaniment patterns for each Keroncong instrument, namely bass, cello, cuk, cak, and guitar. Furthermore, students played the accompaniment pattern one by one with the following stages:

Bass instrument. At this stage, the lecturer demonstrated the ‘double’ accompaniment pattern using the bass instrument. The lecturer played the bass

instrument with the accompaniment of the audio backing track. After the lecturer demonstrated the bass instrument, the students tried to play the double accompaniment pattern on this bass instrument using the DKERONCONG application through their respective smartphones. Students prepare a bass instrument, smartphone, and earphones. Students click on the audio backing track of the bass instrument on the smartphone, click play, and then the bass audio backing track will play. Students play the bass accompaniment pattern according to the audio backing track played in the application.

Cello instrument. At this stage, the lecturer demonstrated the ‘double’ accompaniment pattern using the cello instrument. The lecturer played the cello instrument with the accompaniment of the audio backing track. After the lecturer demonstrated the cello instrument, the students tried to play the double accompaniment pattern on this cello instrument using the DKERONCONG application through their respective smartphones. Students prepare a cello instrument, smartphone, and earphones. Students click on the audio backing track of the cello instrument on the smartphone, click play, and then the cello audio backing track will play. Students play the cello accompaniment pattern according to the audio backing track played in the application.

Cuk instrument. At this stage, the lecturer demonstrated the ‘double’ accompaniment pattern using the cuk instrument. The lecturer played the cuk instrument with the accompaniment of the audio backing track. After the lecturer demonstrated the cuk instrument, the students tried to play the double accompaniment pattern on this cuk instrument using the DKERONCONG application through their respective smartphones. Students prepare a cuk instrument, smartphone, and earphones. Students click on the audio backing track of the cuk instrument on the smartphone, click play, and then the cuk audio backing track will play. Students play the cuk accompaniment pattern according to the audio backing track played in the application.

Cak instrument. At this stage, the lecturer demonstrated the ‘double’ accompaniment pattern using the cak instrument. The lecturer played the cak instrument with the accompaniment of the audio backing track. After the lecturer demonstrated the cak instrument, the students tried to play the double accompaniment pattern on this cak instrument using the DKERONCONG application through their respective smartphones. Students prepare a cak instrument, smartphone, and earphones. Students click on the audio backing track of the cak instrument on the smartphone, click play, and then the cak audio backing track will play. Students play the cak accompaniment pattern according to the audio backing track played in the application.

Guitar instrument. At this stage, the lecturer demonstrated the ‘double’ accompaniment pattern using the guitar instrument. The lecturer played the guitar instrument with the accompaniment of the audio backing track. After the lecturer demonstrated the guitar instrument, the students tried to play the double accompaniment pattern on this guitar instrument using the DKERONCONG

application through their respective smartphones. Students prepare a guitar instrument, smartphone, and earphones. Students click on the audio backing track of the guitar instrument on the smartphone, click play, and then the guitar audio backing track will play. Students play the guitar accompaniment pattern according to the audio backing track played in the application.

Learning media, according to Ibrahim and Syaodih [7], is anything that can be used to channel messages or lesson content to stimulate students' thoughts, feelings, attention, and abilities to encourage the teaching and learning process. The use of learning media can help improve students' understanding and absorption of the subject matter studied. The function of using learning media, according to Asnawir and Usman [8], is to 1) help facilitate learning for students and help facilitate teaching for teachers; 2) provide a more real experience (the abstract can become more concrete); 3) attract greater student attention (learning activities can run more fun and not boring); (4) activate all student senses; (5) attract students' attention and interest in learning. The theory above is proven in this study, where the results show that the DKERONCONG android-based application is needed and useful for learning Keroncong courses. The DKERONCONG android-based application makes it easier for lecturers to deliver material and help and facilitate students in mastering the material. In addition, the DKERONCONG android-based application provides a real experience of playing Keroncong music in groups. The atmosphere of learning Keroncong courses becomes more fun and exciting. It stimulates students' senses by listening and following the sound of the backing track played and increases students' interest and attention in learning Keroncong music.

Furthermore, Utomo, Rachman, and Wafa [9] argue that improving the quality of education can be done through three aspects, namely regulatory aspects (curriculum), professional aspects (teachers), and educational management aspects, where the professional aspect is done through the professional development of teachers and developing the latest adaptive learning media. In line with this statement, the DKERONCONG application is the result of the development of learning media that is adaptive to the times and has proven to be able to improve the quality of education through learning that uses the latest technology that is developing in today's society, namely android.

4 Conclusion

Based on the study, the DKERONCONG application is very much needed and useful in learning Keroncong courses. The DKERONCONG android-based application makes it easier for lecturers to deliver material and help and facilitate students in mastering the material. In addition, the DKERONCONG android-based application provides a real experience of playing Keroncong music in groups. The atmosphere of learning Keroncong courses becomes more fun and not boring, stimulates students' senses by listening to and following the sound of the backing track played, and increases students' interest and attention in learning Keroncong music.

Acknowledgements. This research was funded by the Institute for Research and Community Service (LPPM) Universitas Negeri Semarang. Also, the researchers would like to thank the

respondents, who are students of Music Arts Education at Universitas Negeri Semarang and Universitas Pendidikan Indonesia.

Disclosure of Interests. The authors declare that the research was conducted in collaboration with other members of the writing team. This joint effort includes shared resources, methodologies, and data. No other financial or personal interests that could have influenced the research outcomes are reported.

References

- 1 Ganap, V.: Pengaruh Portugis pada Musik Keroncong (Portuguese Influence to Kroncong Music). *Harmonia: Journal of Arts Research and Education.*, vol. 7. no. 2 (2006)
- 2 Ganap, V.: *Krontjong Toegoe: Asal-usul Musik Keroncong*. Kompas Penerbit Buku, Jakarta (2020)
- 3 Harmunah.: *Musik Keroncong: Sejarah, Gaya, dan Perkembangan*. Pusat Musik Liturgi, Yogyakarta (1987)
- 4 Rachman, A., Pangesty, S. D., Haryono, S., Lestari, W.: Improvisasi Melodi Instrumen Flute Dalam Musik Keroncong. *Jurnal Pendidikan dan Kajian Seni* 7(2), 146–158 (2022)
- 5 Rachman, A., Pribadi S. E.: Kroncong Music in Semarang: A Process of Enculturation *IJAL* 4(2), 1–9 (2019). [Online] Available: <https://drive.google.com/drive/folders/1vIRHgCoi07hYzJnY3T9ywS8VjWSJdB8d>
- 6 Rachman, A., Utomo, U.: "Sing Penting Keroncong" Sebuah Inovasi Pertunjukan Musik Keroncong di Semarang. *Jurnal Pendidikan dan Kajian Seni* 3(1), 47–64 (2018)
- 7 Kurniawan, R., Satrio, M., Riansyah, A. Wardana, N. S.: *Pemanfaatan Sistem Informasi Pengelolaan Koleksi Pustaka Perpustakaan Universitas Negeri Semarang* (2013)
- 8 Sari, N. A. V., Soetardji, S., Rahayu, S.: Persepsi Dosen dan Karyawan Universitas Negeri Semarang Terhadap Senam Konservasi. *Journal Sport Science and Fitness* 3(3), 51–56 (2014)
- 9 Saddam, S.: Integrasi Nilai-Nilai Konservasi Habituasi Kampus Melalui Kegiatan Nonakademik. *Pendekar Jurnal Pendidikan Berkarakter* 2(2), 27–34 (2019). [Online]. Available: <http://journal.ummat.ac.id/index.php/pendekar/article/view/2898>
- 10 Phramesti, R., Yulianti, N.: *Kajian Keberlanjutan Universitas Negeri Semarang (Unnes) Sebagai Kampus Konservasi (Studi Kasus: Unnes Sekaran, Semarang)*. Teknik Perencanaan Wilayah Kota 2(1), 183–190 (2012)
- 11 E. Guntaris.: Strategi Konservasi Kesenian Tradisi (Studi Kasus Kesenian Barongan Empu Supo Di Desa Ngawen Kabupaten Blora). *Jurnal Seni Tari* 1(1), 1–16 (2015)
- 12 Rachman, A., Utomo, U., Saputra, H. I.: *Penggunaan Media Backingtrack Pada Pembelajaran Mata Kuliah Keroncong di Jurusan SENDRATASIK Uneiversitas Negeri Semarang*. Universitas Negeri Semarang (2016)
- 13 Artanto, M.: Perancangan Minus One Instrumen Keroncong pada Lagu Keroncong Moresko Karya Kusbini. *Journal Music Science Technology and Industry* 4(1), 101–120 (2021)
- 14 Varisandi, S. A.: Penggunaan Media Pembelajaran Musik Keroncong Berbasis Audio Visual Untuk Meningkatkan Apresiasi Siswa. *Prosiding Seni Pertunjukan* 3 1(1), 271–278 (2019)
- 15 Richey, R. C., Klein, J. D., Tracey, M. W.: *The Instructional Design Knowledge Base*:

Theory, Research, and Practice. Routledge, vol 4. no.7 (2011). doi: 10.1145/366622.366650

- 16 Sugiyono.: Metode Penelitian dan Pengembangan. Elfabeta, Bandung (2016)

Open Access This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

