

CRT-BASED GO JAR APPLICATION FOR TEACHER PROFESSIONAL DEVELOPMENT AND ART LEARNING ACHIEVEMENT

Indit Undiarsih¹, Sitti Hartinah², Beni Habibi³

Universitas Pancasakti Tegal¹²³

inditundiarsih@gmail.com

ABSTRACT

This research is motivated by the increasing cultural crisis in the field of education, particularly in dance learning at SMP Negeri 3 Randudongkal. Many students struggle to recognize and appreciate local culture due to the use of general teaching materials that do not adequately consider their cultural context. This study aims to develop a learning application based on Culturally Responsive Teaching (CRT) that integrates local dance into the teaching and learning process. The Go Jar application features seven main menus: lesson planning instruments, teacher and student guidebooks, learning materials, student assessments, work evidence, videos, and worksheets (LKPD). This research employs the Research and Development (R&D) method, following Sugiyono's development model, which includes identifying potential and problems, data collection, product design, validation, testing, and product revision. Data collection techniques involve observation, interviews, document studies, and limited trials. The study involves students and cultural arts teachers as test subjects, as well as material and media experts for validation. The research results indicate that the development of the Android-based Go Jar learning application was successful and suitable for use as an interactive learning medium. The material expert validation achieved a score of 100%, indicating very high feasibility, while media expert validation received a score of 94%, categorized as feasible. The small group trial resulted in a score of 91.6%, classified as good, whereas the large group trial obtained a score of 92.1%, categorized as highly feasible. The Go Jar application serves as an innovation in cultural arts learning technology, facilitating students in understanding the local cultural identity of Pemalang and supporting teachers in developing more inclusive and interactive teaching methods.

Keywords: Culturally Responsive Teaching (CRT), dance learning, learning application, Go Jar

INTRODUCTION

Education can be done in a variety of settings, including homes, schools, and communities. Schools as places of public education require a learning model that is able to create a positive learning environment and in accordance with cultural diversity. Teachers play an important role in improving students' critical thinking skills and learning achievement. According to Ramadhan et al. (2023), teachers must have creativity in designing and developing learning methods that suit the needs of students. To support the development of teacher professionalism, schools provide a learning community that functions as a forum for continuous improvement of educators' competencies and academic performance. Along with the development of the times, cultural crises are increasingly evident in the world of education. Many teachers still apply conventional teaching methods that do not consider the cultural diversity of students, thereby reducing learning motivation and suboptimal learning outcomes. This condition also occurs at SMP Negeri 3 Randudongkal, where students from various cultural backgrounds have difficulty in understanding and appreciating their cultural identity due to a lack of attention to cultural aspects in learning.

To overcome these challenges, innovative approaches to learning, such as Culturally Responsive Teaching (CRT), are needed. This approach connects learning materials with student culture to make them more relevant and meaningful. In dance, CRT provides an opportunity to integrate elements of local culture into the teaching and learning process, allowing students to

understand and appreciate their cultural heritage. Unfortunately, the lack of teaching materials based on local culture is the main obstacle in teaching dance art at SMP Negeri 3 Randudongkal.

As a solution, this research developed a CRT-based learning application that provides teaching modules, practice questions, quizzes, and learning resources tailored to the local culture. Digital technology is used to create an interactive platform that supports culture-based dance learning. Thus, the app not only increases students' interest in the art of dance, but also strengthens their connection to the local cultural environment. This research contributes to developing a more inclusive and local wisdom-based cultural arts education in schools.

METHOD

This study uses the Research and Development (R&D) method to develop a dance learning model with a Culturally Responsive Teaching (CRT) approach at SMP Negeri 3 Randudongkal. This research was carried out in several stages, including preliminary studies, model design, small group trials, large group trials, and model evaluation and refinement. The respondents in this study consisted of students and cultural arts teachers who were involved in dance learning.

In the small group trial stage, the study involved 10 students from SMP Negeri 3 Randudongkal. This trial aims to evaluate the initial feasibility of the developed learning model. Input from students regarding the effectiveness of learning methods and materials is analyzed for revision before the wider trial stage. Furthermore, a large group trial was carried out involving 42 respondents, consisting of students of SMP Negeri 3 Randudongkal, students of SMP Negeri 2 Randudongkal, and cultural arts teachers from the two schools. This trial aims to look at the effectiveness of learning models on a broader scale and evaluate their application in various learning contexts.

The data collection methods in this study include observation, interviews, questionnaires, and documentation. Observations were made to observe the implementation of the learning model, the interaction between teachers and students, and students' responses to the CRT approach. Semi-structured interviews were conducted with teachers and students to understand their experiences in the application of this learning model. Questionnaires are given to students and teachers to measure the effectiveness of the developed learning model. The Likert scale is used in the questionnaire to assess students' level of understanding, engagement, and response to the learning method applied. Documentation in the form of photos, videos, and reflection notes of teachers was used as additional data to complement the results of observations and interviews.

In data measurement techniques, several methods are used. Observational analysis was carried out with a qualitative descriptive method that examined the patterns of interaction and student responses during learning. The results of the interviews were analyzed using analytical techniques, where the main themes were categorized based on relevance to the research objectives. Data from the questionnaire were analyzed using descriptive statistics to see the tendency of students' responses to the CRT approach in dance learning. Documentation was also analyzed to support the results of observations and interviews, provide visual evidence and support data triangulation.

The data analysis technique in this study uses qualitative and quantitative approaches. Qualitative analysis was carried out based on the Miles and Huberman model, which consisted of data reduction,

data presentation, and conclusion drawn. Data from observations, interviews, and documentation were categorized and analyzed to illustrate the effectiveness of the developed learning model.

Meanwhile, quantitative analysis was used to process data from the questionnaire, which was then analyzed using descriptive statistics to determine the perception of students and teachers towards the learning model. The results of the quantitative analysis are compared with qualitative findings to get a more comprehensive conclusion.

With the R&D method used, this research is expected to produce an effective and applicative CRT-based dance art learning model. The findings of this study can be a reference for educators in implementing dance learning that is more responsive to the cultural diversity of students. In addition, this model is expected to increase students' understanding and appreciation of their own culture, thereby helping to overcome the cultural crisis faced by the younger generation today. The formula used to process respondent data is:

$$RS = f/n \times 100\%$$

Information:

RS = Percentage of respondents who met the specified criteria

f = Number of students who show high approval/agreement

n = Number of students

The recap of the scores given by teachers and students to the statements in the Android-based Go Jar application questionnaire is made with the following provisions in the following table:

Table 1. Research Questionnaire Score

Answer Criteria	Positive Score	Negative Score
Excellent (SB)	4	1
Good (B)	3	2
Less (K)	2	3
Very Insufficient (SK)	1	4

Source: Research (2025).

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RESULTS AND DISCUSSION

The learning application development product using the CRT approach is named Go Jar. The Go Jar application can be downloaded through the following link <https://go-jar.com/>. The following is a product description of the Go Jar application.

- 1) Apps main menu

(1) Porch

The Go Jar application development product on the home menu is available in seven main menus, namely learning planning instruments, teacher and student manuals, learning materials, student assessments, proofs of work, and videos, and LKPD.



Figure 1 Home View

(Source: Research 2025)

(2) Learning Planning Instruments

The learning planning instrument contains a syllabus, learning implementation plan (RPP), teaching modules, and teaching materials. The following is a display of the teaching module menu on the Go Jar application.



Figure 2 Display of learning planning instruments

(Source: Research 2025)

(3) Teacher and student handbook

The following is a display of the teacher and student handbook menu on the Go Jar application.

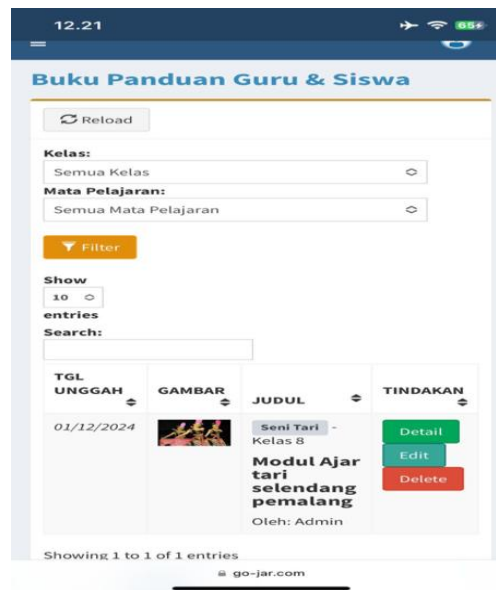


Figure 3 Teacher and student handbook view

(Source: Research 2025)

The display menu of teacher and student books consists of a collection of teacher and student books both dance, music, and fine arts from grade 7, grade 8, and grade 9. The researcher logs in using an admin account and on the admin actions menu is given permission to view the details menu, edit the uploaded details, and delete them using the delete button.

(4) Learning Materials

The following is a view of the learning material menu on the Go Jar application.

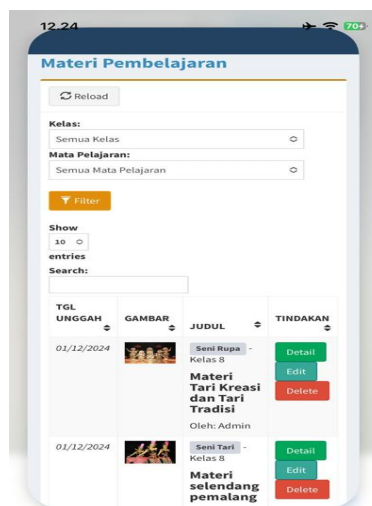


Figure 4 Display of learning materials

(Source: Research 2025)

The menu displays learning materials consist of a collection of student learning materials,

both dance, music, and fine arts from grades 7, 8, and 9. The researcher logs in using an admin account and on the admin actions menu is given permission to view the details menu, edit the uploaded details, and delete them using the delete button.

(5) AsesmenSiswa

The following is a view of the student assessment menu on the Go Jar application.

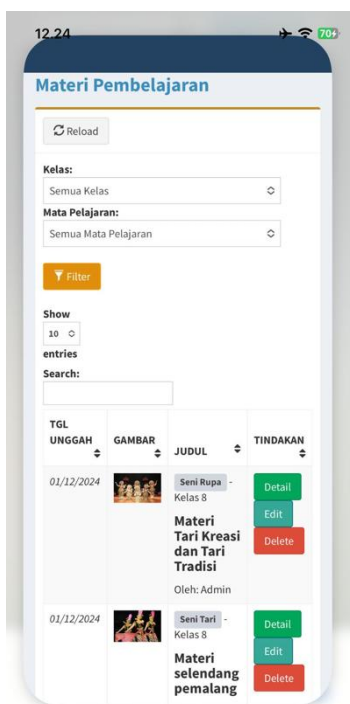


Figure 4.8 Student assessment view
(Source: Research 2025)

The student assessment display menu consists of a collection of student assessments, both initial assessments, formative assessments, summative assessments, and dance education university questions. The material consists of dance, music arts, and fine arts lessons from grade 7, grade 8, and grade 9. The researcher logs in using an admin account and on the admin actions menu is given permission to view the details menu, edit the uploaded details, and delete them using the delete button.

(6) Proof of Work

The following is a display of the proof of work menu on the Go Jar application.

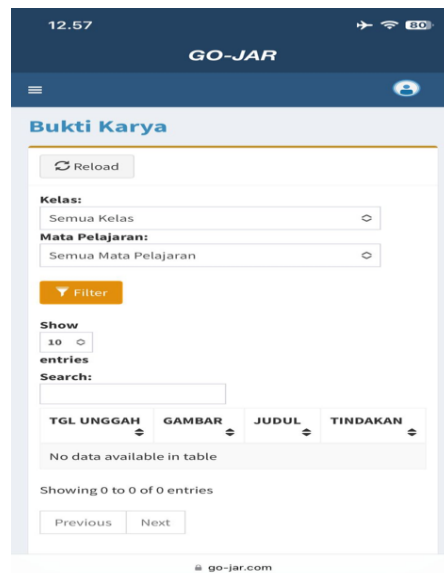


Figure 4.9 Proof of work
(Source: Research 2025)

The work evidence display menu consists of a collection of evidence of student work, both works from dance art, music, and fine arts lesson materials from grade 7, grade 8, and grade 9. The researcher logs in using an admin account and on the admin actions menu is given permission to view the details menu, edit the uploaded details, and delete them using the delete button.

(7) Video

The following is a video display on the Go Jar application.

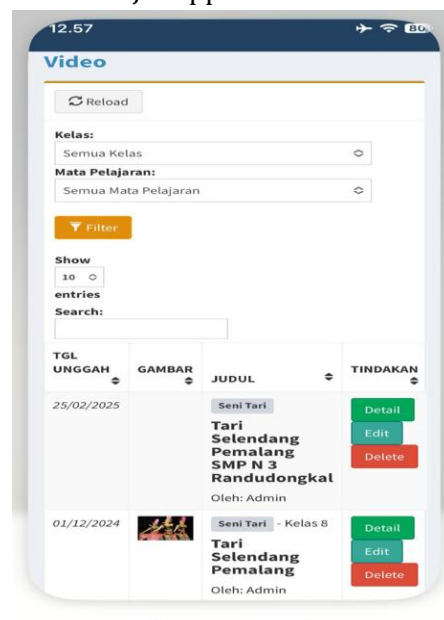


Figure 7 Video view
(Source: Research 2025)

The video display menu consists of a collection of learning videos for students, both dance, music, and fine arts lessons from grades 7, 8, and 9. The researcher logs in using an admin account and on the admin actions menu is given permission to view the details menu, edit the uploaded details, and delete them using the delete button.

8) LKPD

The following is a view of the LKPD on the Go Jar application.



Figure 8 LKPD Display
(Source: Research 2025)

Table 2 Results of small group trials

Yes	Aspects that Rated	Score Count	Criterion Score	Presentase	Category
1	Content Eligibility	289	320	90,3%	Good/Decent
2	Grammar	75	80	93,7%	Good/Worthy
3	Appearance and Use	327	360	90,8%	Good/Worthy
	TOTAL	691	760	91,6%	Good/Worthy

Source: Research (2025)

The results of the small group trial on the Go Jar application regarding the feasibility of the content received a score percentage of 90.3% which means good/decent, in terms of grammar it got a percentage of 93.7% which is included in the good/decent category, and in terms of appearance and use got a percentage of 90.8% which is included in the good/decent category. The total number of small group trials of this Go Jar application is 91.6% which is included in the good/feasible category, so it can be interpreted that this application can be tested to the next stage.

2) Large Group Trials

Table 3 Large Group Trial Results Data

No	Aspects that Evaluated	Score Count	Criterion Score	Presentase	Category
1	Content Eligibility	1187	1280	92,7%	Good/Decent
2	Grammar	297	320	92,8%	Good/Decent
3	Appearance and Use	1309	1440	90,9%	Good/Decent
	TOTAL	2793	3040	92,1%	Good/Decent

Source: Research (2025)

The results of a large group trial on the Go Jar application regarding the feasibility of the content received a score percentage of 92.7% which means good/decent, in terms of grammar it got a percentage of 92.8% which is included in the good/decent category, in terms of appearance and use got a percentage of 90.9% which is included in the good/decent category. The total large group trials are 92.1% which are included in the good/decent category, so it can be interpreted that this application is feasible for mass production. The validation results showed that this model had a high level of effectiveness in improving teacher professionalism and student learning achievement. Thus, the CRT-based learning model with the Go Jar application is feasible to be implemented more widely at SMP Negeri 3 Randudongkal.

The development of the Android-based Go Jar application is designed and produced as an application that makes it easier for students and teachers in Pemalang to deepen material about arts and culture, and make it easier for teachers who are members of the learning community to get *sharingmengenai* learning planning tools that are integrated with CRT And of course according to the needs of students who in this age need an application to help the learning process. This research has undergone several stages, namely from Potential and Problem, Information Collection, Product Design, Design Validation, Design Revision, Small Group Trial, Product Revision, Large Group Trial, Product Revision, and Mass Production (Puspitasari, Nurrochmah, and Yudasmara 2017).

The next stage after the product is finished is made, the product is validated by material experts and media experts. Validation from the subject matter expert showed an assessment result of 81% which means it is feasible and received suggestions to change the name of the teaching module to a learning planning instrument, add a new menu called LKPD, change the term assessment to an assessment, and change the icon of the learning material.

The trial of this application was carried out in two stages, namely a small group trial and a large group trial. In a small group trial, this application received a score of 77.5% which was included in the good/feasible category. In the trial, this large group of applications received an assessment result of 83.1% which was included in the good/feasible category.

The *Go Jar application* is ready to be marketed after receiving revisions from media experts and material experts. The *Go Referee application* contains the main features in one homepage including learning planning instruments, teacher and student handbooks, learning materials, student assessments, proof, and videos, and LKPD.

The features of the learning planning instrument include four sub-menus including the syllabus, learning implementation plan (RPP), teaching modules, and teaching materials. The teacher and student guide feature does not have a sub menu in it, learning materials do not have a sub menu in it, student assessments do not have sub menus in it, proof of student work does not have a sub menu in it, videos do not have sub menus in it, and LKPD does not have a sub menu in it.

The development of the Android-based Go Jar application still has limitations, namely the sample of this research is still in a small scope, covering the Pemalang City Community, especially students, teachers at SMP Negeri 2 and 3 Randudongkal. The limitations of this study have not been spread in several regions in Central Java and have not included a wide range of respondents. For this reason, further research is needed that can cover a wider range of respondents. The Go Jar application is expected to be developed again on IOS devices and can be accessed on iPhone/Apple in order to reach all smartphone users in Indonesia. In addition, further development can also be focused on improving the app's features, such as allowing users to directly upload and save videos within the app without having to upload them to YouTube first. This will make the process of sharing learning content directly easier and more practical for teachers and students.

CONCLUSION

Based on the results of the research, it can be concluded that first, the needs of educators and students in the application *of the Culturally Responsive Teaching (CRT)* approach applied in the dance learning process at SMP Negeri 3 Randudongkal are still dominated by conventional methods, causing student boredom and lack of active involvement. Efforts to use projectors have not been effective, while local cultural materials, such as the Pemalang Selendang Dance, are still minimal. Technology-based learning innovations and the integration of local wisdom are needed to improve students' cultural understanding. The Culturally Responsive Teaching (CRT) approach is expected to create more interactive, inclusive, and relevant learning.

Second, the design of a teacher professional competency development model with a *CRT approach* applied to Go Jar products. In the Go Jar application, there are seven main menus, namely learning planning instruments, teacher and student handbooks, learning materials, student assessments, proof of work, and videos, and LKPD. The Go Jar application can be downloaded through the following link <https://go-jar.com/>.

Third, some of the strategies carried out by teachers to build effective interaction and collaboration through *CRT* include 1) Incorporating local cultural materials into learning 2) Students are required not only to understand affectively, and cognitively, but also psychomotor emphasis on project-based learning.

Fourth, the feasibility test/validity analysis of the learning model developed based on *Culturally Responsive Teaching* with the Go Jar application in the learning process obtained research results that showed that the learning model based on Culturally Responsive Teaching (CRT) with the Go Jar application has a high level of feasibility and validity based on trials and evaluations from material experts and media experts. Validation shows that the app gets a perfect score in terms of material relevance, organization, evaluation, language, and effectiveness of learning strategies. A small and large group trial involving students and cultural arts teachers at SMP Negeri 3 Randudongkal resulted in an eligibility percentage above 90%, which shows that this application is effective in increasing teacher professionalism and student learning motivation. Thus, the Go Jar application deserves to be widely implemented as an innovative digital-based learning medium to support cultural arts learning at the junior high school level.

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