

Development of a basic drum set learning manual: A case study of first-year drum set students, music department, Suan Sunandha Rajabhat University

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Abstract

This research, titled "Development of a basic drum set learning manual: A case study of first-year drum set students, music department, Suan Sunandha Rajabhat University," aimed to (1) develop drum set instructional media appropriate for this group of undergrads, (2) evaluate the effects of the developed media on increasing drum set practice skills, and (3) survey student satisfaction with the media. This research utilized a quasi-experimental and qualitative approach to obtain in-depth data and comprehensive quantitative and qualitative analysis.

The sample was made up of ten first-year music students ($n = 10$) who were in the rhythm and practice group of a drum set skills course. An study of the needs of the students was the first step in the research process, which then involved designing and developing instructional media prototypes, such as worksheets, hand-foot separation activities, and demonstration films. After that, these prototypes were put to the test in actual classroom settings. Semi-structured interviews, a portfolio, a satisfaction questionnaire, and a drum set practice exam with a five-dimensional assessment rubric were among the instruments used to gather data. Paired t-tests and ANCOVA were used to examine the quantitative data, and content analysis was used to assess the qualitative data.

The results revealed that students demonstrated statistically significant improvement in their drum set performance skills ($p < 0.001$, Hedges' $g = 1.35$) and high levels of overall satisfaction with the media (mean = 4.32 out of 5.00), particularly regarding "the media helped them understand hand and foot movements clearly." Most students agreed that the media facilitated systematic practice, demonstrated personal progress, and increased their motivation to learn. In conclusion, the developed media can effectively promote performance skills and create an effective practical learning experience for students in the foundation group.

Keywords: drum set · teaching media · foundation · music performance skills · university

1. Introduction

Music practice, particularly drum set, requires multiple skills such as rhythm, groove creation, hand-foot coordination, dynamic control, and group communication. This practical music teaching approach is often supported by the concept of "learning by doing" and high-quality feedback. Schippers' (2010) work highlights the role of cultural context and music teaching methods within the "world music pedagogy," which requires considering the learner's cultural environment as a key element in curriculum and instructional materials design.

In the Thai context, a study by Laovanich et al. (2020) found that the music education system in Thailand faces several key problems: a lack of specialized personnel, an unclear musical curriculum, limited budgets, and insufficient musical equipment, which impact the quality of music teaching in schools and higher education. Furthermore, Chitsanupong Inkaew (2022) COVID-19's impact has been observed. This has clearly shown the financial security and quality of life challenges that musicians face. This requires raising awareness and creating scholarly space to examine the problem of universal welfare.

Therefore, media that considers diverse backgrounds and may assist students in making the transition to real practice with confidence must be created for foundation students who are just starting to learn drum sets at colleges. Therefore, the purpose of this study is to create and evaluate instructional materials for drum sets that are especially tailored for foundation students in order to evaluate their impact on the development of practicing skills as well as the attitudes and experiences of the students.

1.1 Research Objective

1. To develop drum set instructional media appropriate for foundation students.
2. To evaluate the effects of the developed media on the increase in drum set practice skills.
3. To survey student satisfaction with the media.

2. Literature review

Data collected in this research was divided into four main categories, using different tools and methods depending on the nature of the data:

1. Drum Set Performance Data

Drum set performance data were collected using a drum set performance test and a rubric assessment form, which assessed five criteria: rhythm, technical control, powerful and balanced percussion, lyrical accuracy, and musical expression.

Evaluations were conducted twice: before use to measure learners' baseline, and after use to measure skill development following practice with the learning media.

2. Learner Satisfaction and Attitude Data

A questionnaire was used to collect data on learners' satisfaction and attitudes toward the learning media used. The questionnaire consisted of both rating scale questions and open-ended questions to allow learners to express additional opinions.

Data collection was conducted after use to assess learners' attitudes and feelings toward the media and the overall learning process.

3. Learner Experience Data

To gain in-depth information about learners' experiences after using the media, the researcher used semi-structured interviews and observation records. The researcher observed learning behaviors and responses to the media, and record student participation during the experiment.

This data collection process will be conducted after the experiment concludes to reflect student perspectives, experiences, and opinions in a natural way.

4. Data from learning documents

This data is obtained from the portfolio, which contains student work, such as exercises, self-written sheet music, practice notes, and practice videos recorded throughout the media use period.

Documentary data collection is conducted continuously throughout the media use period to reflect the skill development process and student progress at each stage.

5. Instrument Quality Assessment. The IOC content validity was assessed by experts, and the reliability and reliability of the assessors were assessed.

6 Data Analysis Methods

Quantitative Data: Pre- and post-test scores were analyzed using a paired t-test. If underlying variables were controlled, an ANCOVA method was used to calculate the effect size. **Qualitative Data:** Content analysis from interviews, observations, and portfolios.

3. Methodology

1. Research Design

A quasi-experimental research design with a single group pre- and post-hoc measurement was used, combined with qualitative research to collect in-depth data.

2. Sample

Approximately 10 first-year music students ($n \approx 10$) enrolled in a drum set skills course during the first semester and in the group requiring basic adjustment (unstable musical foundation/rhythm)

3. Media Development Process

1. Needs Analysis by Surveying Students' Strengths and Weaknesses
2. Drum Set Lesson Framework
3. Media Prototype Development, such as Demonstration Videos, Hand-Foot Rhythm Modules, Exercises, and Worksheets
4. Media Testing and Initial User Feedback
5. Media Improvement and Completion

4. Results

1. Drum Set Skill Achievement

Mean score before using the media = 52.3 (SD = 8.4)

Mean score after using the media = 68.7 (SD = 7.1)

Paired t-test results showed $t(9) = 5.42, p < 0.001$

Hedges' g effect size = 1.35 (very large)

ANCOVA analysis (controlling for pre-test scores) confirmed that the media use still had a significant effect ($p < 0.005$)

2. Satisfaction

Overall mean = 4.32 / 5.00

Highest rated item: "The media helped me understand hand and foot movements" (4.6)

Least rated item: "The media is technologically advanced" (3.9)

3. Student use of the training media

"Visualization is clearer" – Students stated that the videos helped them visualize how each hand/foot should move.

"Systematic practice" – The training modules provided a weekly practice plan.

"Increased motivation" – Seeing personal progress encouraged them to continue practicing. "More interactive apps are needed" – Some suggested adding interactive features/practice games.

Research found that instructional materials specifically designed for the foundational students significantly improved their drum set skills (increased pre- and post-test scores). This aligns with Schippers' (2010) musical resources that incorporate interaction and cultural context can successfully encourage hands-on learning. Additionally, the students' worries—like the need for more interactive resources—reflect the state of music education today, where students require "participation" in their education, and interactive media technologies are one strategy covered in a number of recent studies.

Compared to the Thai context, the work of Laovanich et al. (2020) shown that a shortage of resources and highly qualified staff is one of the main challenges facing the Thai music education system. This study is an illustration of how to use instructional material design to handle this one-dimensional issue.

5. Conclusion

The development of drum teaching resources especially for beginning students led to the improvement of performance abilities and favorable views toward the resources. The resources promoted methodical practice and improved the students' ability to "see" movements. Nonetheless, there are areas that may be improved, including making the materials more interactive and giving the degree of difficulty more weight. Examine the long-term outcomes.

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