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DEVELOPMENT OF LABAN NOTATION LEARNING DESIGN BASED ON DIRECT INSTRUCTION MODEL IN HIGHER EDUCATION

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ABSTRACT

This study's objective is to develop a Laban notation learning design based on the direct instruction model in dance notation courses. The research method used is Research and Development (R&D) with the 4-D Thiagarajan development model, which includes the stages of define, design, and development. This research was conducted at the Dance Study Program, Department of Performing Arts, Faculty of Arts and Design, Makassar State University. Data were collected through observation, questionnaires, literature studies, and expert validation. The results of the study indicate that based on the needs analysis, students have a high level of need for a more structured Laban notation learning design. The application of the direct instruction model is considered to be able to improve students' understanding of Laban notation. The Laban notation learning design based on direct instruction developed in this study produces a Semester Learning Plan (SLP) product. The results of expert validation show that the product meets the valid criteria, while the results of the trial show that this learning design is qualified and effective in improving students' understanding.

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1. INTRODUCTION

Dance, as an art discipline that is very rich in expression and meaning, requires a deep understanding of the notations used to record movement, rhythm, and artistic expression (Kassing et al., 2021; Loring & Pentz, 2021). A deep understanding of notation in dance is essential because dance notation is a language that allows communication between dancers, choreographers, and teachers (Pastore & Pentassuglia, 2015; Calissendorff & Jaresand, 2023).

The use of dance notation can function as an effective tool in the learning process and development of skills in dance, allowing dancers to internalize important concepts that underlie movement and improve their understanding of dance as a whole (Hsia &

Hwang, 2021; Cao, 2024). Through dance notation, a dance work can be recorded, re-learned, and preserved from generation to generation.

The purpose of dance notation is to provide a standard and systematic way to record dance movements so that they can be preserved, studied, and interpreted with consistency by others in the future (Lu, 2009; Whatley, 2017). This is very useful in dance teaching, documentation of dance works, dance research, and preservation of dance cultural heritage. By using dance notation, dance movements can be learned and preserved more efficiently and accurately, and they can be exchanged among communities globally.

Realizing the importance of dance notation, currently learning about dance notation has been taught in higher education of arts in Indonesia. Makassar State University, as a higher education institution that offers a Dance Arts Study Program, is one of the universities that includes a dance notation course in its curriculum. Since 2008, the dance notation course has been part of the curriculum of the Dance Study Program, Department of Performing Arts at the Faculty of Arts and Design, UNM (Sumiani, 2020). The course aims to provide students with a deep understanding of the notation used in the field of dance. Students are taught to identify, understand, and use notation for recording movement in writing.

Learning dance notation in the Dance Arts Study Program, Department of Performing Arts, FSD UNM focuses on the Laban dance notation method. This method is commonly used in the academic world because it can provide a very detailed and clear description of dance movements. The use of Laban notation allows for detailed recording so that movements can be recorded precisely and specifically. In addition, recording dance movements using Laban notation allows them to be read across ethnicities or nations because of its universal nature (Khaerah, 2022).

However, in reality, the problem faced in teaching dance notation, especially Laban notation, is the lack of student participation in understanding and learning aspects of it. This can be caused by several factors, including the complexity of Laban notation, which requires extra time and effort to be fully understood. According to Elvarandi (2019), this is because students are less motivated to memorize or simply remember the Laban notation symbols or systems with all their inherent elements, such as their direction, placement, and level.

Another problem faced is that the learning model used has not fully accommodated the needs of students in understanding and implementing dance recording using Laban notation effectively. This monotonous model is less captivating for students, so it has the potential to cause low motivation and active participation in the learning process (Sivarajah et al., 2019). Based on observations in the field, this can be seen by the low level of understanding of the material presented.

To overcome these challenges, it is important to design a learning design based on a more innovative learning model that suits the needs of students. Because the success of learning Laban notation depends not only on the material delivered but also on how it is delivered. One model that is considered relevant in learning Laban notation is the direct instruction learning model (Dania et al., 2017; Soerel et al., 2023). The direct

instruction model focuses on direct and explicit instruction so that it can be a solution to overcome the difficulties experienced by students in understanding Laban notation (de Jong et al., 2023; Sweller et al., 2024). This model has several advantages, such as full control by the lecturer over the learning process, an emphasis on mastering the material before moving on to the next material, and direct feedback from the lecturer to students, which will be very useful in learning Laban notation, which often requires direct correction and explanation (Stockard et al., 2018).

The significance of creating this learning design is rooted in several key areas (Brown & Green, 2019; Ahmad et al., 2024; Hodges & Kirschner, 2024), specifically: The direct instruction model allows for a more structured learning design, where complex material such as Laban notation can be broken down into smaller, easier-to-understand units. Through an approach that focuses on mastering the material before moving on to the next stage, this learning design emphasizes deep understanding. This learning design also emphasizes the importance of direct feedback from lecturer to students. Laban notation, which often requires detailed correction and explanation, can be more easily understood with direct guidance. Lecturer can provide timely corrections so that errors can be corrected immediately and student understanding is more focused.

With a more interactive and structured model, students will be more motivated to engage in the learning process (Barut Tugtekin & Dursun, 2022). A clear and focused learning process will increase their confidence in understanding difficult material. This will help overcome motivational problems that often arise due to conventional approaches that are considered monotonous and boring. In addition, this learning design ensures that students can learn Laban notation more efficiently and accurately (Stockard et al., 2018). The use of the direct instruction model minimizes the risk of misconceptions or misunderstandings about Laban notation so that students can apply their knowledge effectively in recording dance movements (Mason & Otero, 2021; Rolf & Slocum, 2021).

Various problems in learning Laban notation in dance notation courses in the Dance Arts Study Program, Department of Performing Arts, FSD UNM, have been identified through field observations. Based on observations during the learning process, students tend to feel bored and less motivated in understanding Laban notation. They often experience confusion when they have to interpret complex symbols, which ultimately hinders their overall understanding.

In addition, from the existing literature review, until now there has been no research that specifically explores effective learning models to be applied in learning Laban notation. As of now, research has only looked at learning methods like recitation and step-by-step methods for learning Laban notation. It hasn't looked into more innovative and structured learning models like the direct instruction model. Therefore, the development of a learning design based on a direct instruction model is expected to be an effective alternative solution to improve students' understanding of Laban notation and overcome the obstacles that have been faced in the learning process.

Thus, an intriguing thing to study is the development of a Laban notation learning design based on the direct instruction model in dance notation courses. This research is

very relevant in an effort to improve the quality of dance notation learning, especially in the Dance Study Program, Department of Performing Arts, Faculty of Arts and Design, Makassar State University. This will not only improve students' understanding of the material but will also support the preservation and development of dance more broadly, both at the academic level and in the context of cultural preservation.

2. METHOD

The type of research used is the research and development model, or research and development. The R&D model used in this study refers to the Thiagarajan 4-D model. The 4-D model is an abbreviation of define, design, development, and dissemination developed by Thiagarajan (Hasbi et al., 2019; Mesra, 2023). This selection is based on the consideration that the 4-D model research design is systematic and based on the theoretical basis of educational product design in the form of learning tools, learning models, media, and learning applications so that the resulting product has a standard of eligibility.

The research subjects in this study were students of the Dance Arts Study Program, Department of Performing Arts, Faculty of Arts and Design, Makassar State University, who took the Dance Notation course. These students were chosen as research subjects because they are the main targets of the Laban notation learning design based on the direct instruction model that will be developed.

This research procedure uses the Research and Development (R&D) approach by adopting the Thiagarajan 4-D model, which consists of four main stages, namely define, design, development, and dissemination. The learning design development process in this study focuses on three initial stages: define, design, and development, because the dissemination stage is not included in the scope of this study.

Data collection techniques are an important step in the research process because the data collected will be used as a basis for analyzing needs and designing appropriate products. In this study, the focus is on the definition, design, and development stages, so the data collection techniques chosen must be able to capture the information needed to develop a Laban notation learning design based on direct instruction. The data collection techniques used in this study are observation, questionnaires, literature studies, and expert validation.

The research instrument is a tool used to collect the data needed in this study. In the study of creating Laban notation learning designs based on the direct instruction model, different types of instruments were used. These include questionnaires and validation instruments, each made to meet a different data collection goal. The data analysis process employs both quantitative and qualitative descriptions.

3. RESULTS AND DISCUSSION

Results

Referring to the formulation of the problems that have been identified, this study uses a type of development research, or what is known as Research & Development (R&D).

R&D research is carried out through a series of stages to develop and validate the resulting Laban notation learning design. The model applied to product development uses the 4D model: define, design, develop, and disseminate. This model has been converted to 3D, so this research was only done during development.

1. Define

In order to identify the needs and problems relevant to the developed learning design, the define stage is applied according to the 4D model. At this stage, a needs analysis is carried out to understand the extent to which the Laban notation learning design is needed by students in the Dance Notation course. This analysis is the initial basis for designing an appropriate and effective learning design.

Data collection was carried out through observation and a needs analysis questionnaire. The goal of observation is to see how involved the students are in the learning process. The questionnaire, on the other hand, is used to find out how the students feel about learning with Laban notation.

The results of the needs analysis questionnaire show that the majority of respondents have a high level of agreement with the identified needs. The average percentage of the results of the needs analysis from each questionnaire item shows a figure of 83%. So, these results show that making a Laban notation learning plan based on the direct instruction model is something that is really needed.

At the define stage, a more in-depth analysis is done to come up with a learning design that meets these needs. This analysis is made up of five main parts: front-end analysis, learner analysis, concept analysis, task analysis, and specifying instructional objectives.

2. Design

The Laban notation learning design based on the direct instruction model is designed to meet the needs of students in understanding, recording, reading, and applying Laban notation systematically. Based on the results of the previous analysis, this approach offers structured and explicit learning through planned and detailed steps. The design process includes two main stages, namely the design stage and the development stage. The design stage is the initial step in developing a Laban notation learning design based on the direct instruction model. At this stage, a learning plan is prepared that is designed systematically to ensure that each component supports the achievement of learning objectives. This design encompasses aspects such as the construction of criterion tests, the selection of media and formats, and the creation of an initial design.

The initial design of the learning design is made based on the analysis results from the define and design stages. This stage aims to produce a prototype of the learning design that will be further developed through expert validation and trials. The tools designed include the Semester Learning Plan (SLP) document equipped with the Lecture Event Unit (LEU) as the main tool that supports the Laban notation learning process. This document is designed to provide systematic and structured guidance for

lecturer and students in implementing learning in accordance with the learning outcomes that have been set.

The Semester Learning Plan is designed to provide a comprehensive framework for one semester of learning. Each element in the RPS is arranged by considering the needs of students in understanding Laban notation. The SLP also includes the distribution of materials per meeting, which is designed so that students can learn the material gradually and in a directed manner, with each meeting being continuous. In the context of learning Laban notation, the RPS provides direction on the stages of mastery, starting from basic symbols and application to footwork, torso, arms, hands, palms, and fingers to the integration of all body segments.

This semester's learning plan is also equipped with a cover designed to reflect the academic identity of the Faculty of Art and Design at Makassar State University. This cover design includes elements such as courses, study programs, institutions, and other important information that clearly and formally represent the contents of the document.

This Semester Learning Plan is equipped with a Lecture Event Unit (LEU) that contains technical details of the implementation of learning in one meeting. SAP is prepared as an operational guide for lecturer in implementing learning according to the plan that has been set in the SLP. The learning platform LEU is organized to help with learning using the direct instruction model, which has five stages: setting up a set, showing, guided practice, feedback, and extended practice.

Use the following: course name, course code, credits, time, meeting, course learning outcomes (CLO), sub-course learning outcomes (Sub-CLO), indicators, learning objectives, topics, sub-topics, teaching and learning activities, evaluation, and references.

The preparation of this initial design aims to create an integrated document so that the learning process can run effectively, be directed, and support students in achieving the competencies that have been set. This design will then go through an expert validation stage to ensure its feasibility and relevance before being tested.

3. Development

After going through the design stage, which refers to the results of the student needs analysis, this research enters the development stage. This stage aims to ensure its quality in terms of validity, effectiveness, and practicality. The development process is carried out through two main steps, namely expert appraisal and developmental testing.

The products that have been developed by researchers are then evaluated by experts. This validation aims to ensure that the developed learning design meets the validity criteria in terms of both the material and the media used. There are two main aspects that are validated, namely material validation and media validation.

The content or material experts involved in the assessment of the development product are lecturers at the dance study programme, Faculty of Art and Design, Makassar State University. The development product assessed by the material expert is in the form of a semester learning plan (SLP) equipped with a lecture programme unit. The goal of this product's evaluation is to get useful feedback on the content's accuracy,

usefulness, and completeness so that the RPS can be improved based on students' needs. After being evaluated by subject matter experts, the Laban notation learning design product got a validity percentage of 100%. This means that it meets the valid criteria and does not need to be changed.

The development products are lectures at the dance study programme, Faculty of Art and Design, Makassar State University. The product submitted for assessment is the Semester Learning Plan product that has been developed by the researcher. The assessment focused on aspects of visual clarity, format suitability, ease of use, and media appeal. The Laban notation learning design product got a validity percentage of 98% from the media experts' evaluation. This means that the product is valid and can be tested in the field. However, there were several suggestions and input from media experts to improve the quality of the resulting development product. The input given was the addition of a learning method at the second meeting and the signatures of the Head of the Dance Study Programme in Charge of the Dance Notation Course at the end of the Semester Learning Plan (SLP).

The development trial phase was conducted to test the effectiveness and practicality of the validated Laban notation learning design product. This trial was conducted by involving students of the Dance Study Programme, Faculty of Art and Design, Makassar State University, who were taking the Dance Notation course. This process aims to obtain empirical data related to the extent to which the learning design can help students understand Laban notation in more depth.

The trial was conducted in a real learning environment by referring to the Semester Learning Plan that had been prepared. The trial process was conducted in one meeting, namely at the 15th meeting, according to the schedule listed in the Lecture Event Unit. The material focused on students' ability to record and read finger movements using the Laban notation system.

Learning activities were carried out in three main stages, namely introduction, presentation, and closing. In the introductory stage, the lecturer opened the class by greeting, taking attendance, and providing apperception of the previous material. These activities aim to build a conducive learning atmosphere and connect new material with previously learned knowledge.

The second stage in learning activities is presentation. The presentation stage is the core of the learning process, where students will learn, understand, and apply the recording of finger movements in Laban notation. In this stage, the learning process is carried out systematically according to the syntax of the direct instruction model, which consists of five main phases, namely:

a. Establishing Set

The lecturer explicitly conveys the learning objectives, namely for students to be able to analyze finger movements using Laban notation and vice versa. In order to increase student involvement, the lecturer brainstorms by asking questions related to the importance of recording finger movements in Laban notation. Students are then asked to provide responses to these questions. In this activity, students demonstrate active participation by providing responses and sharing views during the discussion. The

lecturer explains that recording finger movements in Laban notation has a very important role in documenting movements systematically so that they can be studied and taught again with high accuracy. Each position and movement of the fingers has a special symbol in Laban notation, so an accurate understanding is essential.

b. Demonstrating

After building students' cognitive readiness, the lecturer begins to demonstrate how to record finger movements in Laban notation in stages and systematically. This demonstration is carried out using visual media such as presentation slides and a whiteboard to help students understand how to record Laban notation symbols more clearly and accurately.

In this phase, the instructor demonstrates how symbols in Laban notation can represent finger movements in various positions and how recording is done by following the rules of direction, level, and relationship between hand parts. Each step is explained in detail so that students can understand the recording process systematically and structurally.

c. Guided Practice

After students gain a basic understanding through demonstrations, pupils begin to practice recording finger movements using Laban notation independently but still under the guidance of the instructor. This exercise is carried out in groups, where three groups are given the task of recording one variation of finger movements in the form of Laban notation.

The instructor actively observes the practice process and provides direct guidance if there are students who experience difficulties. Some students have difficulty in determining the correct direction of finger movement in recording, so the instructor guides them to improve their notes. Students also discuss with each other in groups to ensure that their recording is in accordance with the principles of Laban notation that have been learned. In this phase, the interaction between students and instructors is more intensive, allowing for clarification of errors or misconceptions that occur during practice.

d. Feedback

After all groups have completed the exercise, the learning continues to the feedback phase, where students are asked to record their analysis results on the board. The lecturer then evaluates the results of the students' Laban notation recording, focusing on aspects of symbol suitability, direction of movement, level, and clarity of the notation structure. If there is an error in the recording, the lecturer not only shows where it is but also explains why it occurred and how to fix it. In addition to feedback from the lecturer, students are also given the opportunity to provide feedback on the results of recording finger movements from other groups. This teaches students to analyze their friends' notation so they can learn from their mistakes and successes. With the feedback stage, students not only understand how to record movements better but also gain a deeper understanding of the concept of Laban notation.

e. Extended Practice

The last phase is extended practice or independent practice, where students are given individual assignments to record finger movements using Laban notation. This assignment is a continuation of the previous assignments, where students will integrate recording finger movements with recording other body segments that have been made previously. Thus, at the end of this assignment, students are expected to be able to produce complete notation recordings for all body segments using Laban notation.

Students are given time to work on the assignment outside of class hours, with the aim of training them in applying the concept of recording Laban notation independently. To ensure recording accuracy, students are also instructed to reread and translate their notation into movement. Students learn the theory of recording Laban notation and can ensure that their notes accurately represent movement.

Through the above learning steps in the presentation stage, it is clear that the systematic learning approach using the direct instruction model can give the learning process a clear structure, helping students understand and master the material gradually until they can use it in a wider setting.

The final stage, after the presentation, is the closing stage. The lecturer and students draw conclusions from the learning session and provide reinforcement for the concepts that have been taught. The lecturer also provides information related to assignments for the final semester exam and closes the learning by motivating students to continue practicing their ability to read and record Laban notation.

After the Laban notation learning design trial activity ended, students were asked to fill out a questionnaire to provide responses related to the learning activities that had been carried out. The average percentage of student responses was 86%, indicating a high level of qualification. Thus, the Laban notation learning design based on the direct instruction model does not need to be revised. The trial results showed that the learning design that was tested was able to facilitate student understanding effectively. Student responses to the learning process and the media used were also positive, indicating that the design developed was relevant to their needs.

Discussion

Learning dance notation, especially Laban notation, has an important role in developing students' ability to document dance movements in writing (Davies, 2007; Dania et al., 2017). However, the complexity of the symbols contained in Laban notation often becomes a challenge for students in the learning process. To solve this issue, this research created a Laban notation learning design based on the direct instruction model. The goal is to give students a more structured, interactive, and useful way to learn that fits their needs (Triana & Yudha, 2021).

The development of a Laban notation learning design based on the direct instruction model has been carried out through the stages of the 4-D development model. These stages include defining, designing, and developing to produce a valid learning design that is in accordance with the needs of students in the Dance Notation course.

The results of the student needs analysis show that the learning approach used previously has not been fully able to meet students' learning needs. This is indicated by students' difficulty in understanding Laban notation symbols. The results of the needs analysis questionnaire indicate a significant need for the development of a Laban notation learning design. Therefore, the learning design that is designed focuses on providing systematic steps that support in-depth understanding and active involvement of students. Based on the results of observations and the results of the needs analysis questionnaire, it was found that the majority of students needed more structured learning and focused on direct practice. Students also emphasized the importance of demonstrations and feedback from lecturer to help them understand complex concepts in Laban notation. The learning design was then designed by considering the results of the needs analysis. The following are the stages of learning design with reference to the Gagne-Briggs theory (Merrill, 2013; Petry et al., 2018; Gropper, 2018):

1. Instructional goals. The main learning goals are set by this learning design: students should be able to look at how all parts of the body move and write it down in a dance notation system, preferably Laban notation; they should also be able to correctly translate Laban notation into body movements.
2. Instructional analysis. Instructional analysis is carried out to identify the skills needed, such as understanding basic symbols, recording and reading foot, torso, arm, hand, palm, and finger movements using the Laban notation system.
3. Entry behaviors and learner characteristics. This stage involves analyzing students' initial abilities, including their level of understanding of Laban notation symbols. This data is obtained through observation, and the student needs questionnaires that indicate the need for more structured learning.
4. Performance objectives. Performance objectives are designed in the form of the ability to record and read body segment movements using Laban notation in stages.
5. Criterion-referenced test items. The tests are designed to assess students' abilities in recording and reading Laban notation, both individually and in groups. This evaluation is used to measure the level of student understanding of the material.
6. Instructional strategy. The learning strategy applied is the direct instruction model. This model was chosen because this approach allows for the delivery of material explicitly and in a directed manner, with learning steps broken down into small parts. This makes it easier for students to understand the material gradually. In addition, this model emphasizes intensive guidance and ongoing evaluation to ensure that students understand each stage of learning before moving on to the next stage. According to Suprijono (2009:45), the direct instruction model consists of five phases, namely establishing a set, demonstrating, guided practice, feedback, and extended practice.
7. Instructional materials. Learning materials include basic Laban notation symbols, recording foot, torso, arm, hand, palm, and finger movements.
8. Formative evaluation. Formative evaluation is carried out through exercises during the learning process. This exercise includes direct assistance by the lecturer to ensure that students understand each step in recording and reading Laban notation.

9. Summative evaluation. Summative evaluation is carried out through follow-up assignments designed to measure student achievement. This task involves recording the motion of body segments in stages, which are then evaluated to ensure comprehensive understanding.

The learning product produced in this study is a Semester Learning Plan (SLP) equipped with a Lecture Event Unit (LEU), which is designed to provide systematic and directed learning guidance. SLP functions as the main guideline in planning learning that will be carried out for one semester. Meanwhile, LEU provides operational details related to learning steps in one meeting, making it easier for lecturer to carry out the learning process effectively and efficiently.

The results of validation by experts show that the designed learning design has met the validity criteria in terms of both content and media. The Semester Learning Plan, as the main product developed, is considered to have a clear structure and is relevant to students' needs in understanding Laban notation. The development stage also includes a trial of the learning design on students. The trial results show that this learning design is effective in increasing active participation and student understanding. Feedback from students indicates that they feel more motivated and helped by this new learning design.

The research that was done shows that the learning design that was created is valid and useful. This is because it has been approved by content and media experts and the results of the student survey are good. This means that the Laban notation learning design based on the direct instruction model can be used indefinitely in the Dance Arts Study Program, Faculty of Arts and Design, Makassar State University, especially in the Dance Notation course.

4. CONCLUSION

Based on research and discussion, it can be said that the Laban notation learning design is very much needed based on the results of the analysis of student needs. Students need more structured, interactive learning and provide direct guidance and specific feedback to make it easier for them to understand the concepts and symbols of Laban notation. The use of the direct instruction model is considered capable of increasing understanding of Laban notation.

The product developed to answer these needs is the Semester Learning Plan (SLP), which is equipped with a Lecture Program Unit. This SLP is designed with a clear learning structure, including learning steps based on the direct instruction model. The product developed meets the criteria for satisfactory validity based on validation by experts. In addition, the results of the trial showed excellent qualifications based on student responses to the learning design developed. What this means is that the Laban notation learning design based on the direct instruction model that researchers came up with has been shown to work and meet the needs of students taking dance notation classes at Makassar State University's Dance Study Program.

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