



Edumatriks Application-Based Quality Index Version 1.0 for Quality Control of Dance Studio Management and Education

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Abstract: The quality of the implementation of dance studios as non-formal educational institutions can be measured through the quality of program execution and the management systems applied. Dance studios function not only as spaces for arts education but also as culture-based business units that require quality control to ensure the achievement of performance targets, service quality, and business objectives. However, preliminary studies indicate that most dance studios in Indonesia have not yet implemented standardized and modern management systems. This study aims to describe the development of a web-based application, Quality Index version 1.0, as an instrument for standardizing business processes and controlling the quality of dance studio management in Indonesia. The research employs a development research method with a descriptive qualitative approach, analyzing the design, functions, and initial implementation of the Quality Index application version 1.0. The results show that the application can present a database of dance studios based on established quality standards and facilitate the direct collection of management data through on-site assessments. The application serves as a systematic, measurable quality control tool. It is concluded that the Edumatriks Quality Index version 1.0 has the potential to serve as a standard quality parameter for dance studio management. This research contributes to the development of technology-based evaluation and management models in community dance arts education.

Keywords: dance studio; digital assessment; quality control

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INTRODUCTION

Educational institutions in society are not limited to formal schools, legally facilitated by the government or the education department. There are also many non-formal educational institutions established by individual initiative to serve the learning needs of the community (Amadi & Uchechi, 2018; Hassan, 2009; Radcliffe & Colletta, 1989; Rogers, 2007). In this model of education implementation, it is carried out to meet the community's identified needs regarding understanding its culture and to support actions related to the community's identified learning needs (Drahota et al., 2016; Leavy, 2022; Strand et al., 2003). The non-formal education system in Indonesia generally differs from the formal system. These differences lie in the curriculum, timeframe, cost efficiency, and location. Some non-formal education programs aim to improve students' soft and hard skills, including dance studios in Indonesia, which focus more on developing students' dance skills. A dance studio is a non-formal educational institution that conducts educational and training activities in the field of dance with students of various types and ages (Anggraini & Hasnawati, 2016; Hidayat et al., 2017; Khutniah & Iryanti, 2012). In addition to serving as a center for dance education and training for local residents, the dance studio can also serve as a center for preserving and developing traditional arts (Anggraini & Hasnawati, 2016; Elvandari, 2020). Dance arts education and training in dance studios is directed at efforts to preserve (values), provide information and education about regional culture, study existing dances, whether classical dance, creative dance, or modern dance (Resi et al., 2019). Meanwhile, in dance development, a studio reconstructs, creates new dances, or creates existing dances and empowers (survival) (Huddy, 2017). Although non-formal education, such as dance studios, plays an essential role in meeting community learning needs and preserving cultural identity, there remains a lack of systematic approaches to assess the quality and effectiveness of such institutions. Most existing initiatives focus on cultural and educational outcomes but do not develop measurable, technology-based evaluation tools.

One of the most urgent issues in dance education and training in studios is how to ensure that the quality of educational institutions continues to improve and develop (Iriani, 2012). Improving the quality and standard of education will be determined by many factors, such as teachers, staff, students, curriculum, teaching and learning processes, financial support, and management (Iriani, 2012; Tanu, 2016). The quality and business processes of a dance studio are closely related (Kuswandari, 2017; Tanu, 2016). This is because the quality of

the process itself greatly influences the final result of a business process. An effective and efficient business process will produce quality products or services, while a poor business process will produce products or services of poor quality. Quality in the context of a business process can be defined as the level of consumer (student) satisfaction with the products or services provided by an organization (dance studio). The complexity of quality and quality analysis needs to be standardized so that it can become a guide for the quality of dance studios. Some problems that occur in Dance Studios in Indonesia, in general, include: 1) Dance studios as educational units in the community have not all carried out quality management mapping according to the University version. Therefore, the results of this analysis can be a quality standard for achieving institutional accreditation based on the perception and analysis of universities, 2) The programs implemented in dance studios are diverse learning programs with varying management qualities. Therefore, dance studio managers can learn together about the quality achievement strategies that can be taken by the institution, 3) Assessment of dance studios needs to be carried out within a certain period, so that it can motivate the measurement of good learning program service achievements and good management quality. This achievement can be a recommendation for the Education Office or related parties, thus becoming a trigger for other institutions to contribute to each other to achieve better studio quality. However, although the quality and business processes of dance studios are known to be interrelated, there is currently no standardized mechanism or technology-based framework for assessing how effectively these management processes contribute to the overall quality of dance studio performance. This absence of a systematic evaluation model makes it difficult to identify which studios meet quality expectations and which require improvement. In addition, there is a growing need for a reliable system that can integrate multiple quality indicators ranging from management, teaching, and service performance into a single, data driven assessment tool. Addressing this gap is essential to provide objective insights for studio development and policy-making in the non-formal education sector (Mulyani & Purnomo, 2025).

This study examines strategies for strengthening the quality of dance studio management. The focus of this research was to gather as much information as possible to identify factors influencing the quality of dance studio management in Indonesia. However, this study did not mention the instruments used to identify potential problems in the dance studios studied. Xiao (2024) focused on the management of dance studios in higher education. His research found that the curriculum, teaching, artistic practice, and management significantly influence the quality of dance studio operations in higher education. McMahon (2020) applied his knowledge and expertise to manage a dance studio. As a dance studio company manager, he is required to balance his professional knowledge of company management with the implementation of educational programs in the dance studio. From several studies, no tool or instrument has been used to measure the quality of dance studio management, as done in this study, which used the Edumatriks version 1.0 measurement tool to assess the quality index of dance studio management in Indonesia. From this review of previous studies, it is clear that while researchers have explored various factors influencing the management and performance of dance studios, none have developed or implemented a standardized, data-driven, and technology-based tool for objectively measuring their quality. This indicates a significant research gap that this study aims to fill. By developing a measurable, web-based quality index, the present research offers a novel approach that integrates educational management theory with digital innovation, providing a more systematic framework for evaluating and improving non-formal dance studio management in Indonesia.

The studio, as a community learning space, plays a role just as important as the goals of formal dance education or schools. The curriculum developed in the studio is more tailored to accommodate the skills participants wish to master and their individual needs (Prichard & Horrigan, 2018). This study examined the application of active learning in dance studios to enhance students' participation in dance lessons. In this study, all students participating in dance lessons were handled directly, accurately, objectively, and transparently, with the goal of more productive and proactive learning interactions. Coelho and Menon (2020) researched online learning in dance training programs at studios during the Covid-19 pandemic. Sebuuma and Martin (2018) examined the differences between dance learning and teaching in studios. However, in other research areas, there has been little research on the quality standards of dance education in studios. This is crucial to maintaining the quality of learning to match the quality of learning outcomes in formal schools. Management is a process that helps formulate policies and objectives and provides oversight of all aspects involved in their implementation and achievement (Budiman et al., 2022; Hufad et al., 2023; Salim & Salim, 2002). The management function is the effort to achieve previously determined goals through the efforts of others (Kilpatrick, 2000; Terry & Rue, 2013). Management cannot be separated from human resources activities in an office, agency, or organization (Holt, 1976). The goal of management is that all existing resources, such as human resources, equipment, or facilities within an organization, can be mobilized to avoid wasting time, energy, and materials in order to achieve the desired goals (Kurjono, 2016; Langstrand et al., 2015; Somers et al., 2014; Závadská & Závadský, 2020).

Management is needed in all organizations because without it, efforts will be in vain and achieving goals will be more difficult (Aquino et al., 2018; Usman, 2006). There are several management objectives: 1) To achieve organizational goals based on the vision and mission, 2) To maintain balance between conflicting goals.

Management is needed to maintain balance between conflicting goals, objectives, and activities of stakeholders in an organization, and 3) To achieve efficiency and effectiveness. An organization's work can be measured in many different ways, such as efficiency and effectiveness, 4) Management objectives will be achieved if the steps in implementing management are determined appropriately (Certo & Certo, 2019; Schermerhorn Jr & Bachrach, 2023). Quality control, commonly known as quality control, is a system for detecting deviations in output quality that do not meet standards. Quality control requires clear, definite quality indicators to identify deviations. Implementing this quality control requires collaboration between educational institutions and relevant ministries, as well as active community participation (Zahroh & Maunah, 2015). Quality education is education that can produce outputs, both services and graduates that meet the needs or expectations of its customers (market) (Kondo, 1993; Langstrand et al., 2015; Olson, 2004; Venkatraman, 2007). Quality in the context of education relates to efforts to provide comprehensive and satisfactory services to users of educational services. In the education system, quality is always related to student input, the education delivery process, with a focus on student services, and the resulting output (Zahroh & Maunah, 2015).

The approach to quality control involves the following activities: a) Evaluating actual performance, b) Comparing actuals with targets, and c) Taking action on differences between actuals and targets (Kondo, 1993; Somers et al., 2014; Venkatraman, 2007). Before program quality control is implemented, some prerequisites must be met: first, the existence of planning; control must be based on clear, complete, and integrated planning so that planning is more effective and the control system can be implemented; second, the existence of a clear organizational structure. The purpose of control is to conduct assessments and implement improvements so that the planned objectives can be achieved optimally. The targets of educational quality control include several aspects: curriculum, personnel management, students, facilities, and infrastructure. There are four stages in the quality control process: 1) planning, namely setting goals and standards; 2) measuring actual performance; 3) comparing performance measurement results with standard performance; 4) improving performance (Santosa & Mushthofa, 2022). A studio is a place used by a community or group for activities, especially artistic ones such as dance, music, drama, painting, crafts, and other arts (Berg, 2015; Martin, 2019). Art studios are included in the non-formal education category. They provide knowledge that is more practical than theoretical, while arts education or institutions cover both theory and practice (Chappell & Hathaway, 2018). According to the Minister of Tourism Regulation No. 21 of 2015 concerning the Standards for Art Studio Businesses, an Art Studio business must meet business standards covering aspects of its products, services, and management. Product standards relate to issues of venue standards, art and cultural instructors, art and cultural works, and artists. Service standards are directly related to the implementation of Standard Operating Procedures (SOPs).

Meanwhile, management standards relate to organizational standards, management, human resources, and facilities and infrastructure. One benchmark for assessing the organization of a dance studio is observing the program's implementation. If management has been implemented effectively, the educational institution will be able to achieve high-quality performance and work results (Berg, 2015; Prichard & Horrigan, 2018). Dance studios, as organizations with business value, need to be supported by effective quality control to achieve quality, performance, and business objectives (Kondo, 1993; Somers et al., 2014; Venkatraman, 2007). Business processes can include production, marketing, and financial management activities, thereby fostering a creative economy in the arts sector (Palmer-Fornarola, 2016; Rohayani et al., 2022).

To facilitate this analysis, a dance studio management quality index application is needed to support the dance studio's business processes. The quality index application is software that consists of a data collection process based on documentation, observation, and interviews, and it is measured based on the weight of the findings achieved by the organization. Based on the standards for organizing art studios, Regulation of the Minister of the Republic of Indonesia No. 21 of 2015, there are three standards as indicators of the quality of institutional management: product standards, service standards, and management standards. These standards prioritize the implementation of art studio programs. Meanwhile, art studios as educational units that organize learning programs can refer to Government Regulation of the Republic of Indonesia No. 57 of 2021 concerning National Education Standards, which has eight standards: graduate competency standards, content standards, process standards, educational assessment standards, educational staff standards, infrastructure standards, management standards, and financing standards.

The measurement of the quality of dance studios in Indonesia has not been mapped through a systematic approach or software application, so it has not been able to produce an accurate analysis of which dance studios need to be fostered or not. This study aims to develop a quality index application to map the quality of dance studios that provide dance education services in the community through non-formal channels. In the future, it is hoped that this studio-quality index application can be used nationwide, so that the quality standards for the implementation of dance education in studios improve from a management perspective. This application is web-based, managed by the Admin, and data collection is carried out by the Assessor. The data processing process is faster and more accurate because it is computer-based, with classification of institutional quality standards: A with Very Good status, B with Good status, C with Sufficient status, and D with status that has not reached the standard.

METHODS

This study uses a development research design to develop a quality index application for dance studio managers to assess the quality of dance education and training in Indonesia. The primary emphasis of this study is on the development, validation, and initial functional evaluation of a technology-based quality assessment system rather than on experimental testing of causal effectiveness. This study generally uses seven main steps in development research, namely: the potential and problem stage, the data collection stage, the product design stage, the design validation stage, the product trial, the revision stage, and the final product (Denzin & Lincoln, 2017; Dube & Chisaka, 2021; Gall et al., 2003; Pool & Laubscher, 2016; Sekarningsih et al., 2021). The product design is an educational quality index application that includes a set of indicators to measure the quality of education and training provided by dance studios in Indonesia. The Research and Development research procedure consists of 10 research steps (Gall, 2003; Badaruddin et al., 2025; Badaruddin, Firdaus, et al., 2025). However, this research analysis only focuses on seven research steps, as the intended output of the study is to obtain a validated prototype of the Edumatriks quality index application rather than a large-scale implementation. The research design used in this study is pre-experimental, namely a one-shot case study, which involves only one experimental class, without a comparison class and without an initial test (pretest) (Suwitri et al., 2021; Santosa et al., 2020). This design was intentionally selected as part of a limited field testing stage within the development research framework to examine the functional effectiveness, usability, and practical applicability of the developed application. This research was conducted by collecting information to improve the learning methods of the research subjects (Creswell, 2013; Creswell, 2024). Therefore, the effectiveness referred to in this study is interpreted as functional and practical effectiveness rather than experimental or causal effectiveness.

The initial stage of the Research and Development method involves a preliminary study before developing the model to be designed (Badaruddin, Masunah, et al., 2025). This stage can be achieved by conducting an empirical study of community-run dance studios, including 6 art studio institutions to determine the implementation of management functions, 20 assessors to determine the quality of the quality index software, and 5 experts to determine the input and validation of the developed software. The selection of institutions, assessors, and experts was conducted purposively based on their relevance, experience, and involvement in dance education and studio management. The next stage involves creating a systematic research plan that includes mapping the problem, drafting the Edumatriks measurement model, validation and testing, and developing a dissemination plan for the model. Ultimately, this model will be developed as a final research model for assessors to determine the quality of art studio institutions. To test the draft model developed, this stage is part of the researcher's limited or small-scale testing. This stage was conducted at one art studio institution, with 20 assessors as respondents. This limited trial serves as a pilot implementation to evaluate system functionality and indicator clarity.

After refining the model, it has been tested for a limited number of targets. The next step is to refine the model that has undergone a more rigorous testing process. This refinement process is based on feedback from assessors and expert informants to enhance the relevance of indicators, system usability, and the consistency of outputs. Thus, this refined model can be validated and adopted as the final model to be used. This stage is part of the model validation process, which involves experts, respondents, and stakeholders in the implementation. The decision reached at this stage will explain whether the developed model is suitable for use with different or broader objectives. During the trial phase, the study involved 20 assessors. For expert informants involved in this research, 5 people were used to assess the quality of the software used. Expert informants were obtained from 2 academics, 2 studio management practitioners, and 1 tourism office. Meanwhile, the institutions assessed were 6 art studio institutions. The data collection techniques used in this study included interviews and observations. Additionally, a questionnaire was used to measure respondents more broadly and comprehensively, using a Likert scale with intervals of 1-4 to assess the achievement of each indicator. The questionnaire was created as a Google Form with 12 closed-ended questions. These indicators were derived from the arts studio management standards framework presented in Table 1. The interview instrument used structured interview techniques to address key points of focus of the research problem. Interviews focused primarily on dance studio managers and trainers at six dance studios in the Bandung region of Indonesia.

Table 1. Arts Studio Management Standards

Product Standards	Service Standards	Management Standards
Place	Availability and delivery of information	Organization
Arts and culture instructor	Participant registration	Management
Cultural arts works	Payment	HR
Artist	Training and visitor regulations	Facilities and infrastructure
Supporting facilities	K3 and P3K	Supporting facilities
	Implementation of cleanliness	
	Customer service	

Qualitative analysis of data taken from the results of interviews, observations, as well as data that has been commented on in the form of image recordings (Figure), audio, and audiovisual. Forms of data that can be analyzed in a qualitative approach in this study include: the results of interviews with sources (experts) who provide voice notes and revisions to the developed model, and the usefulness of the model in this program. Data from the analysis results can be presented as a description of the problems found in the research, or as a table explanation of the problem, with a coding theme or topic of discussion. Quantitative analysis to test the model's effectiveness is carried out using a normality test and an effectiveness test to determine the average in one experimental class in the SPSS 0.21 program. This quantitative analysis was intended to examine the consistency and practical performance of the application within a single testing setting rather than to conduct experimental comparison across groups.

RESULT AND DISCUSSION

One benchmark for assessing the implementation of a dance studio is the program (Qomariyah et al., 2022). If management is implemented well, educational institutions will be able to produce high-quality performance and work results (Ismail, 2018). Dance studios, as organizations with business value, need to be supported by robust quality control to achieve quality, performance, and business objectives (Kuswandari, 2017). Business processes can include production, marketing, and financial management activities, thereby fostering a creative economy in the arts sector (Hasanah, 2015). The assessment of the quality of arts studio education is a comprehensive evaluation of the management of arts studios, in accordance with the Minister of Tourism's Regulation on Arts Studio Standards. Each component influences the institution's business processes. Empirical evidence shows that a good and professional educational institution will influence public trust in that institution (Wahyudi, 2018). Simply put, the analysis is based on the Input, Process, and Output aspects of an arts studio institution, thus reflecting its performance. These three aspects will be assessed based on arts studio standards, with the instrument serving as a guide in the data collection process and determining the institution's quality score. An illustration can be seen in Figure 1.

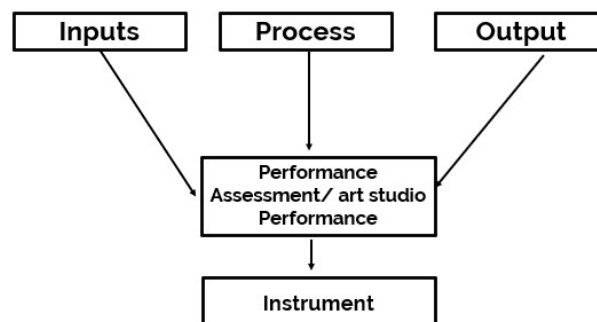


Figure 1. Performance Analysis Process

The standards used to measure the quality of art studio institutions refer to three indicators: Product Standards, Service Standards, and Management Standards, with a total of 33 sub-indicators or sub-standards. Each Standard has its own sub-standards, with a measurement scale of 1 to 4 using a predetermined rubric. Edumatriks is a quality-assessment software for educational institutions, particularly dance studios, that uses a performance analysis approach. The Edumatriks application helps policymakers and stakeholders measure the quality of educational institutions. Furthermore, institutions will obtain quality qualifications recognized by the government and the public. The Edumatriks application can be accessed at <http://Edumatriks.com/>. An overview of the Edumatriks application is shown in Figure 2.

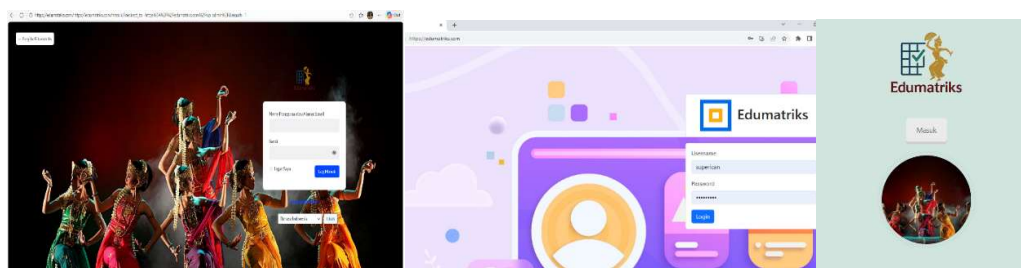


Figure 2. Edumatriks Application Display

Based on Figure 2, the Edumatriks application has a homepage with a user login page used by assessors, assessees, and admins to enter the username and password registered by the super Admin. After the assessor

or assessee logs in, a homepage display will appear, showing a dashboard containing information about the user's identity and quality assurance. The user identity dashboard contains information that the user must fill in regarding personal data, while the quality assurance dashboard contains flows or menus directly related to the stages of quality assurance implementation. The Edumatriks application, developed for dance studio management quality control, provides various functions tailored for users, including admin users, assessor users, and assessee users. Admin users are users who act as operators of the Edumatriks application control panel, equipped with a username and password, or super Admin. The function of an admin user in a computer system, software, or online platform is to manage, supervise, and control specific aspects of the system. Administrators have higher access rights and responsibilities than regular users when carrying out their tasks, such as maintaining system security, configuring and managing settings, managing access rights, providing technical support, monitoring performance, backing up and recovering data, enforcing data policies, and managing licenses. The admin user's function in Edumatriks is to manage the application and have authority over it. Some of the responsibilities that the admin user can perform include changes to assessor data, institution visit data, post-training assessor certificates, uploading guides in video or document format, and mapping institutions to be visited. For more details, the Admin's main duties and functions are explained in Figure 3.

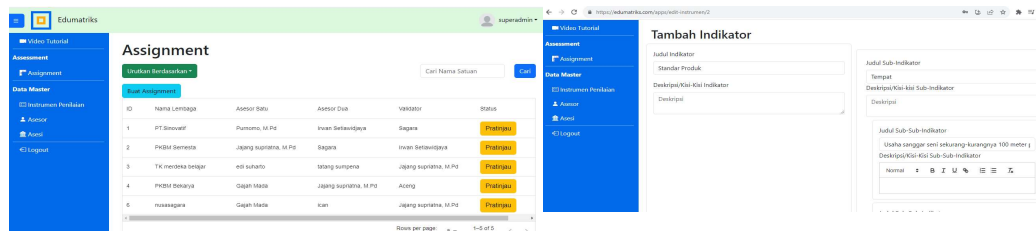


Figure 3. User Admin Flowchart

An assessor refers to someone who provides advice, guidance, or assistance in a specific field of study regarding a specific problem. The Assessor, who needs to be proficient in the field of dance studio management studies, is able to provide recommendations or suggestions to individuals and organizations that need input and management improvements. Assessors must have credibility and experience in dance studio management, and their role is to provide information and guidance that helps individuals or organizations make better decisions in addressing complex problems. User assessors are users who act as assessors in the Edumatriks application, digitally evaluating the quality index of dance studios. These assessors have two functions, namely as visitation assessors and validation assessors. Visitation assessors are tasked with visiting dance studios that will be assessed. This visitation assessor consists of 2 people, namely Assessor A and Assessor B. Validation assessors are tasked with carrying out the final validation of the assessment results produced by the visitation assessor. This validation assessor has only one person per dance studio institution visited.

Assessors use a username and password to log in. Then, assessors can update the assessor dashboard, namely name, assessor ID number, address, gender, place and date of birth, Population Identification Number, WhatsApp number, email, and upload personal photos. Assessors can use several menus in the application, including the administrative validation menu, the individual assessment menu, and the group assessment menu. Each visiting Assessor on duty (Assessor A and Assessor B) aligns their perceptions by determining a joint assessment (group assessment), resulting in a group score. If the value is late in being decided by the visiting Assessor, the validation assessor is then tasked with clarifying the data obtained by the visiting assessors (Assessor A and Assessor B) in the field. The final value decision is made by the validation assessor in the form of an assessor grade (A, B, or C). The flowchart of the main menu and quality unit assessor can be seen in Figure 4.

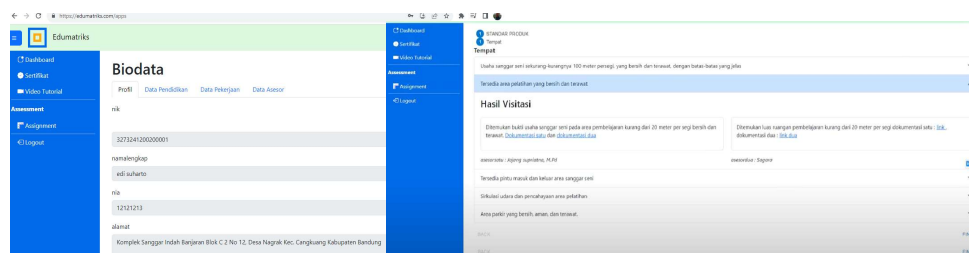


Figure 4. User Assessor Flowchart

Assessed users are users from proposing institutions or dance studios that register their institutions for assessment by assessors. Assessors (proposing institutions) can register or submit proposals independently

through the Edumatriks application. Each Assessor has their own username and password, used to log in and fill in data in the form of institutional identity such as Institution ID Number, Institution Name, Address, Institution Leader, Telephone/WA Number, Email, Institution Social Media, Institution Status (accredited or not), Institution Establishment Decree Number, Institution Establishment Decree Date, Institution Operational Permit Decree, Institution Operational Permit Decree Date and Institution Location Map. This data is useful for mapping institutions that will be visited by assessors, as well as the administrative requirements institutions must meet before being visited by assessors.

The results of the prerequisite test show that most indicators are medium and low. Therefore, it is necessary to use a normality test to assess the software. To test the software used by the assessors, the researcher has prepared 20 assessors to test the educational quality instrument using the Edumatriks application. This limited research step is useful for obtaining significant or insignificant results. If insignificant data is found, it is necessary to improve or develop parts or components of the designed software. Based on the results of the Kolmogorov-Smirnov (Sig = .056) and Shapiro-Wilk (Sig = .077) tests, the distribution of limited test data for the Edumatriks software is shown in [Table 2](#).

Table 2. Frequency and Percentage Distribution

Mark	Category	Frequency	Percentage (%)
0 – 59	Very Low	0	0
60 – 74	Low	3	25
75 – 84	Medium	9	75
85 – 94	High	0	0
95 – 100	Very high	0	0

Based on [Table 2](#), 3 students (25%) received low scores and 9 students (75%) received medium scores. Furthermore, the data were categorized by completion scores. The score under 75 is considered incomplete, and the score from 75 to 100 is considered complete. Three assessors (25%) believed that the Edumatriks software was incomplete or still needed revision. It was also noted that 9 assessors (75%) had stated that the software trial was complete. The completion score of 75% falls within the category 'Medium'. To assess the effectiveness of the Edumatriks software, a one-sample test was conducted.

The result shows the software assessment data. Sig (2-tailed) = 0.191 > 0.05; thus, H_0 is accepted. There is no significant difference in the quality standards instruments for studio management between the Edumatriks application and conventional methods. Based on this limited-scale testing, revisions or input were needed to identify areas deemed deficient or in need of improvement. This revision process was conducted in collaboration with experts and assessors to identify deficiencies and potential improvements. Based on a large-scale trial, researchers conducted expert judgment on the indicators of the developed Edumatriks software instrument, consisting of two technology academics, two assessors, and one person from the Tourism Office. The following are several points of expert input regarding the Edumatriks application, outlined in [Table 3](#).

Table 3. Results of Expert Revision FGD on Limited Scale Trial

Aspect	Recommendations/Feedback
method of collecting data	Data collection methods should include multiple sources, including independent observers and internal dance studio evaluations. Additionally, consider integrating data from different sources to gain a more holistic perspective.
Relevance	It is important to ensure that this index can be applied well in the diverse context of dance arts in Indonesia.
user interface design	The user interface should be intuitive and easy to use for users from all backgrounds. Also, considering that non-technical users will use this application, the design should be very user-friendly.
technical accuracy	The technical aspects of this application are working well and meeting expectations, ensuring compatibility with various devices and platforms.

Table 4. Wide-Scale Software Assessment Results

Indicator	Score	Category
A. Correctness		
Software can help in accessing data information	80	Medium
Software can help collect, process, and report data.	82	Medium
The data processing system can be done quickly	81	Medium
B. Integrity		
Login and username, password available	86	High
Autonomous private access available	82	Medium
C. Efficiency		
Accessing software and information can be done anywhere	86	High
Accessing the software requires a low fee	86	High
D. Usability		
The software's format guide is easy to understand.	83	Medium
The language used is communicative and easy to understand.	89	High
Data and information reports are easy to access and understand	73	Low
E. Reliability		
Accurate score calculation or accumulation	75	Medium
Provide appropriate standard assessment decisions based on evidence	78	Medium

Based on the data in Table 4, as a prerequisite for the one-sample test, it is necessary to assess normality using a normality test. To test the software used by the assessors, the researchers prepared 30 assessors to use the Edumatriks software to assess the instrument's quality. This large-scale research step is useful for obtaining significant results by incorporating improvements and expert and revised assessor input, along with calculations for the data normality test. The results of the large-scale trial have a Sig. value of 0.773 > 0.05, so the data is normally distributed. The distribution of the Edumatriks software-wide test data is shown in Table 5.

Table 5. Frequency and Percentage Distribution

Mark	Category	Frequency	Percentage (%)
0 – 59	Very Low	0	0
60 – 74	Low	1	8.3
75 – 84	Medium	7	58.3
85 – 94	High	4	33.3
95 – 100	Very high	0	0

Based on Table 5, there were no very low score categories; 1 person (8.3%) in the low score category; 7 people (58.3%) in the medium score category; and 4 people (33.3%) in the high score category. Furthermore, the data were categorized by completion score, as shown in Table 6.

Table 6. Minimum Completion Score for Wide-Scale Software Testing

Score	Category	Frequency	Percentage (%)
$0 \leq x < 75$	Not Completed	1	8.3
$75 \leq x \leq 100$	Completed	29	97

Based on Table 6, the Edumatriks software is complete, although 1 person (8.3%) reported still needing feedback, a decrease from the previous limited-scale trial. It is also known that 29 assessors (97%) have declared the software trial complete. Based on Table 6, the completion score is 97%, which falls within the Very good category. To determine the effectiveness of the Edumatriks software, which was tested on a limited scale.

The software assessment with a one-sample test shows a 2-tailed p-value of $0.000 < 0.05$, so H_0 is rejected. There is a significant difference in the quality standards instruments for studio management between the Edumatriks application and conventional methods. Expert testing in the context of the Edumatriks application involves collecting opinions and input from experts in the field of Edumatriks (a science related to measurement in education) regarding an application or system designed to measure, manage, or analyze dance studio quality index data. The goal is to ensure that the application has the validity, reliability, and relevance needed to face the challenges and needs of dance studio quality assessment. In the test, the researcher invited 5 (five) experts with backgrounds and knowledge relevant to measuring the quality of institutions and experts in the field of dance arts, who were gathered for the Focus Group Discussion (FGD) agenda. In this activity, 2 people came from lecturers or community education experts with a scientific focus on analyzing the quality of community

educational institutions, 2 people came from lecturers or dance arts experts, and 1 information technology (IT) expert. From the FGD, results and input were obtained regarding the Edumatriks application, including instrument validity, instrument reliability, measurement methods, relevance, user interface design, technical accuracy, data analysis, security, and privacy. These 8 discussion components serve as a guide in implementing FGDs and produce various inputs and reinforcements.

The experts' recommendations and input varied widely across their respective areas of expertise. This further complements and refines the Edumatriks application before it is used to measure the quality index of dance studios in Indonesia. The first aspect, instrument validity, is based on expert input that the quality index should encompass key factors in assessing a dance studio's quality, such as artistic quality, training, and public performances. In the application developed, the indicators currently used by researchers are highly relevant and reflect the quality standards of dance studios. The relevance of the instrument used, of course, aims not only to ensure the assessment objectives are on target but also to ensure the sustainability of the quality index program. This is especially relevant because sustainability is a crucial consideration in non-formal education, so it is also important to demonstrate that the program can survive and serve similar needs in other contexts (Shohel, 2022; Huddy, 2017). The second aspect is instrument reliability. In this regard, experts note that the Edumatriks index must ensure that data collected from dance studios is consistent over time (Budiman, Nugraheni, et al., 2022; Jo & Gebru, 2020). This, of course, relates to the data or assessments the dance studio will obtain. To support this, the reliability of the instruments in the application must be continuously improved so that they can be relied upon for decision-making (Martinez-Fernandez et al., 2019).

The third aspect is the data collection method. In this regard, experts suggest that the data collection method should include various sources, including independent observers and internal evaluations of dance studios (Colthart et al., 2008). Additionally, consider integrating data from different sources to gain a more holistic perspective. The fourth aspect is relevance. Relevance is a crucial aspect in developing Edumatriks applications because it ensures the index can be effectively applied across the diverse contexts of dance arts in Indonesia. The fifth aspect is user interface design. In this regard, experts provided input on the user interface, which must be intuitive and easy to use for users from diverse backgrounds (Salman et al., 2018). Also, considering that non-technical users will use this application, the design must be extremely user-friendly. The sixth aspect is technical accuracy. In this regard, experts note that the technical aspects of this Edumatriks application function properly and meet expectations. They also ensure compatibility with various devices and platforms. Software used by the public should be technically sound (Siavvas et al., 2022). The seventh aspect is data analysis. In this aspect, the expert team stated that the data analysis method used in this application is robust and meets user needs. Further guidance on interpreting the analysis results is needed. This is evident in the various assessment support features and diverse data processing developed by researchers in the Edumatriks application. Qualitative research data analysis, aided by software, significantly assists analysts in processing data (Mahmudah, 2021).

Data security and privacy are crucial concerns in the development and implementation of the Edumatriks application as a quality measurement tool for dance education in Indonesian dance studios. Experts emphasize that data collected through the application must be protected from unauthorized access and managed in accordance with personal data protection regulations, as such data reflects the managerial conditions and institutional quality of dance studios (Asghar et al., 2019). In the context of development research, the security of data storage systems is not only technical; it also determines the validity, reliability, and accountability of the quality assessment results produced (Chassidim et al., 2021). With an adequate security system, the Edumatriks application can support objective, transparent, and data-driven evaluation of dance education quality and serve as a basis for strategic decision-making for dance studio managers. Therefore, security and privacy aspects are crucial foundations for the sustainability, user trust, and effectiveness of Edumatriks's implementation as a technology-based dance education quality assessment model in Indonesia.

The presence of the Edumatriks application has had a significant impact on the development of a dance education quality evaluation system, particularly in promoting transparency, accountability, and standardization of dance studio management. The application of information technology in the evaluation process has been proven to accelerate the collection, processing, and reporting of education quality data in real time, thereby reducing reliance on manual approaches that are prone to administrative errors and data inconsistencies (Budiman, Hufad, et al., 2022; Nurunisa & Shodiq, 2024; Schellekens & Prins, 2025). This application is a digital solution that can simplify the collection, processing, and reporting of institutional quality data, enabling more rapid and accurate processing than conventional methods, as evidenced by higher effectiveness scores in large-scale tests (sig. 0.000 < 0.05). With a personal login system for each assessing institution, the data verification process is more secure and monitored, thereby reducing the potential for manipulation and administrative errors. In addition, Edumatriks provides broader access for assessors to conduct evidence-based assessments, while strengthening the position of dance studios on the map of non-formal education quality in Indonesia. Through this process, the Edumatriks application not only improves the efficiency and integrity of the evaluation system but also builds a culture of transparency and trust between institutions, assessors, and supervising agencies

such as the Department of Tourism and Education. Scientifically, this research contributes to the development of a technology-based quality assessment model in dance education and opens opportunities for further research on digital management, quality certification, and the future competitiveness of dance education institutions. The integration of validity, reliability, and relevance, developed through expert judgment, strengthens the theoretical foundation for the application of educational metrics in the arts and culture domain. This aligns with the view (Nieminen et al., 2023; Rusk et al., 2024) that digital assessments must be designed contextually to maintain the instrument's validity in an educational environment. Furthermore, the application of Edumatriks demonstrates that technological approaches can be effectively adapted to non-formal education contexts with unique characteristics, such as dance. The results of this study also provide a tangible contribution to the policy of developing a digital-based quality system, which aligns with the direction of national education transformation toward an adaptive, data-driven, and quality-improving evaluation system.

Although the Edumatriks application demonstrates effective and significant improvements to the quality evaluation system for dance arts education, this study still has several limitations that require attention. The main limitations lie in the scope of respondents and the research context, which is still limited to dance studios in certain regions, so generalizing the results to all of Indonesia requires caution. Furthermore, several technical aspects, such as the user interface and cross-platform data integration, still require further development to be optimally usable by non-technical users in various regions. Dependence on internet connection is also a challenge, especially for dance studios in areas with limited digital infrastructure. Therefore, further research is recommended to expand the trial sample across various provinces and types of arts institutions, and to integrate the Edumatriks system with the national non-formal education platform. Furthermore, longitudinal testing is recommended to assess the application's consistency over a longer period and to ensure the sustainability and systemic impact of Edumatriks's implementation in managing the quality of arts education in Indonesia.

CONCLUSION

This research has successfully developed a prototype of the Edumatriks application, an information and communication technology-based instrument that can systematically and standardize the quality index of dance studios in Indonesia. The novelty of this research lies in integrating a dance studio quality assessment model with a digital platform specifically designed for the context of non-formal dance education, thereby bridging the gap between traditional management practices and the demands of a modern management system. The application development process was carried out in stages, from the formulation of a conceptual prototype to an operational prototype ready for use. It was validated through expert testing involving five experts with diverse scientific backgrounds to ensure the instrument's feasibility, relevance, and accuracy. The presence of the Edumatriks application has had a significant impact on the development of a dance education quality evaluation system, particularly in encouraging transparency, accountability, and standardization of dance studio management. Scientifically, this research contributes to the development of a technology-based quality assessment model in dance education, as well as to opportunities for further research on digital management, quality certification, and the future competitiveness of dance education institutions.

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