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Research Article

Enhancing Filipino Senior High School Students' Conceptual Understanding of Philippine Folk Dance Using the *iSAYAW* Web Application

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ABSTRACT

The introduction of Philippine folk dance (PFD) has been a very challenging pursuit by many physical educators in the Philippines. Thus, a continuous exploration of potential instruction powered by digital technologies is currently being explored. Hence, this study employed *iSAYAW* - a web-based system teaching-learning material for teaching PFD. This study utilized a quantitative action research approach, employing a one-group pre-test and post-test inquiry. A 50-item researcher-made test was administered to assess students' conceptual understanding of Philippine folk dance before and after the intervention. A class of 45 students was identified to gain the lowest mean score during the pre-test, which was the reason for the four-week implementation of *iSAYAW*. After the intervention, it was found that the post-test scores showed a notable increase compared to pre-test scores, indicating that the web-based learning material effectively enhanced students' conceptual understanding of PFD and contributed to their learning of the concepts. Hence, it was revealed that students' experiences were enjoyable and that using the app was helpful for independent learning. It led them to improve their scores as it offers lessons that the teachers are not teaching sometimes. In contrast, this application mitigates the learning process of the PFD concepts. However, students faced challenges, particularly with their internet connection limiting their learning experience with the application. Hence, it is recommended that students explore *iSAYAW*, expand its content, extend usage duration, include multiple grade levels, and promote cultural heritage to enhance learning and appreciation of Philippine folk dance.

Keywords: *Educational technology, Philippine folk dance, Physical education, Web application*

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Introduction

Dance is an art form and a body movement in a choreographed or improvised manner accompanied with or without music (Karpati et al., 2015; Russel, 2021); this is being performed in ceremonies and rituals wherein it engages multisensory experience, with the sense of movement, action, location, and sense of balance (Fink et al., 2021), which is presented in all human cultures that played a vital role in cultural and social practices throughout history and have led to its evolution into an art form and entertainment (Karpati et al., 2015). The original function of the dance is courtship and mating. This can be performed solo with the functions of group coordination. It can also be done at the group level, which offers the opportunity to exchange relevant content in terms of social, coordinate actions, signaling coalitional strength, and stabilizing the structures of the group that served as a vehicle for expressing cultural and social information (Fink et al., 2021).

Culture is the nation's soul and must be given attention to protect and preserve it from being lost over time. The citizens must develop and promote the historical and cultural heritage. Therefore, the Republic Act 10066 or the National Cultural Heritage Act of 2009 "mandate the state to conserve, develop, promote and popularize the nation's historical and cultural heritage and resources as well as artistic creation." Local governmental agencies must record both traditional and modern arts and crafts, according to Section 16 of the said Act. To adhere to those mentioned above, cultural heritage preservation must be observed in the country, which could happen primarily in the school setting. With that, the Republic Act No. 8626, *"An Act Designating The Bayanihan Philippine Dance Company as The Philippine National Folk Dance Company, Defining Its Role and Functions as Such, and Appropriating Funds Therefore,"* which continuously undertakes Philippine folk culture programs through research and documentation that emphasizes dances, and rituals, along with music, ornaments, and decorations for the enrichment of music, dances, and costumes by constituting the raw materials that are suitable for staging as the *Bayanihan* repertoire for national and international performances. Additionally, this develops responsible folk-dance experts in terms of recruiting, training, and maintaining permanent dancers whose sole function is to provide a national dance outreach program to pass on the culture and the art through dance clinics, workshops, and seminars that are open to all talented Filipinos over the country.

The Department of Education (DepEd) conducts a National Folk Dance Workshop yearly to develop knowledge, skills, understanding, and expectations for folk and traditional dance as a bridge of culture and People of the Philippines and Asia in compliance with DepEd Order no. 8, s. 2013. The target participants are teachers at all levels, dance trainers, teachers in charge of the dance group, members, directors, choreographers, cultural and arts officers and personnel, and cultural events coordinators. Cognizant of this, the K-12 Art curriculum focuses on the Art, Culture, and Heritage of the Philippines, which aims to appreciate the various arts, crafts, indigenous materials, and local artists to strengthen the identity of the students as Filipinos. (K to 12 Arts Curriculum Guide, May 2016). In Senior High School (SHS), subjects mainly include rhythmical movement patterns that promote and appreciate Philippine folk dance, indigenous and traditional dances, and other dance forms (K to 12 Senior High School Core Curriculum – Physical Education and Health, May 2016).

One of the integral parts of education is the Music and Arts curriculum, which contributes to the complete development of the learners, allowing them to express their creativity and learn about different cultures while contributing to their holistic growth. Whereas the MATATAG Curriculum in Music and Arts aims to develop 21st-century learners who are musically and artistically literate in which learners produce various artworks to foster critical perception, multicultural literacy, artistic and creative expression, and holistic national identity as a Filipino. Moreover, this curriculum also promotes and preserves the local traditions and heritage, which provides the learners with a relevant education that enables them to appreciate their identity as Filipino individuals (Republic of the Philippines Department of

Education MATATAG Curriculum Music & Arts Grades 4 & 7., August 2023).

The COVID-19 pandemic dramatically altered educational systems worldwide, leading to widespread school closures, a shift to distance learning, and significant learning loss. Recede et al. (2023) stated that this pandemic disrupted many things worldwide, and the education system in the Philippines was not exempted from these changes. Additionally, physical education was one of the academic subjects that was challenged during this time as it was not allowed to conduct face-to-face interactions, which is hard to manage in an online setting since physical education revolves around activities that facilitate physical movement (Munoz, 2023). Further, No and Esguerra (2023) claimed that the pre-service teachers' actions toward folk dancing perceived their competence in this field as unskilled and needed to have more knowledge as well as proper guidance and training as they experienced less exposure to these dances during the pandemic which affect their competence in this field. Moreover, Rara et al. (2023) stated that the Bachelor of Physical Education students who enrolled in online learning and studied folk dance had concerns about their learning process and outcomes as it was new for them to acquire folk dance skills without physical interaction with students and teachers as it requires the instructor's guidance in the process of learning to assess if the steps are being executed correctly, and the proper body alignment.

In the school where the researchers were deployed for their internship, it was observed in their classes during discussions on dances, mainly folk dances, that learners have experienced difficulty in remembering and performing the basic concepts and steps in Philippine folk dance (PFD). The goal of Philippine traditional dances is to apply practical skills, and understanding of the rudiments of folk dancing is being challenged. Hence, the researchers would like to utilize the developed *iSAYAW* (Interactive Supplemental Application You can Access via the Web) Web Application to supplement the teaching-learning process of the concepts in Philippine folk dance. This application was a product of one of the authors' undergraduate research undertakings. They want it to be integrated with their classes as a tool to aid them in discussing PFD and learners' learning processes. With this in mind, integrating the application could enhance students' conceptual understanding of Philippine folk dance.

Review of Related Literature and Studies

Position of Dance in the Educational Settings

Dancing extensively impacts students from elementary school until college because it has many benefits that make them more attentive. It has been demonstrated to enhance social skills and interpersonal relationships, lower stress and anxiety, improve body image, and improve mental and physical health (Maraz et al., 2015). Additionally, dance can improve physical fitness and increase body awareness and personal expression, strengthening a person's sense of self and identity (Shields, 2003). Furthermore, this review explores the effects of dance on children and teenagers, its physiological and psychological benefits, and its potential as an alternative therapy for specific pathologies and medical disorders. It discusses dance styles used in physical interventions and suggests dance as a viable substitute for traditional physical activity, benefiting healthy and medically compromised populations (Tao et al., 2022). Moreover, research shows a positive correlation between improvisational dance and creativity, as it aids cognitive comprehension, retention, and exploration, broadening comprehension beyond arts and dance (Wright, 2018).

The successful growth of dance education at universities necessitates the collaboration of schools, teachers, and students (Zhang, 2019). Dance education has a variety of teaching methods, and there are still numerous issues in the actual teaching process, such as highlighting the skills but disregarding the theory, the implementation, indoctrination, teaching, and overlooking the individual differences between students and their overall development. (Zhang, 2019). Moreover, the problems and possibilities faced by dance and female teachers were unique, yet they could effectively negotiate their professional and personal responsibilities to prosper in the dance business (Pham & Phan, 2022). As stated by Ripalda

(2019), the most common difficulty experienced by PE teachers while practicing choreography is the attitude of the dancers, while the least common problem is the age of the students, with older students being more hesitant to participate than younger students. Meanwhile, according to Fostervold et al. (2022), professional dance students have a high incidence of mental health issues and injuries, as well as low mental health literacy, improved body appreciation, understanding of correct nutrition to meet basic needs, enhanced performance, and help regulate body weight are all necessary. Furthermore, other obstacles that dance students may experience include a need for parental and financial support because of the preconceptions of dance majors. Cultural and social factors may also be issues for students because dance is sometimes considered forbidden (Lopez, 2017).

Folk dance, alternatively referred to as traditional and ethnic dance or folk choreography, integrates musical and literary folklore, forming a crucial aspect of the broader field of folklore (Susu, 2018). As the third distinct component in this field, folk dance emerges as a collective creation (Susu, 2018), and "Philippine folk dances are as old as the history itself which at present generation are rarely seen" (Domingo, 2018). Moreover, evolving through syncretic expressions within the realm of dance movement, it underlines shared and representative elements of the character personality of individuals within the community where it originates and evolves (Susu, 2018). In the Philippines, Filipino students sometimes neglect folk dances because of the rapid increase of modern dances, specifically modern hip-hop dances; likewise, they are also into dancing and watching these modern dances more than the traditional ones (Lobo, 2022). Therefore, students should be provided opportunities and necessary activities to foster their love and interest in folk dances, which will also help preserve the diverse dances established by Filipino ancestors (Lobo, 2022).

Challenges Faced by Students in Knowledge Acquisition During the Pandemic

During the pandemic, students may face obstacles to acquiring knowledge, fewer opportunities for experiential learning, and trouble maintaining interest in online content, which could result in uneven learning opportunities. Knowledge acquisition has become a pivotal concern for students due to the overload of information, knowledge, and resources, making it challenging to comprehend the most relevant information (Feroz et al., 2022). For instance, in the study of Goodwin and Miller (2013), The students experienced challenges in acquiring new knowledge during lectures, either because the new information may come unhurriedly or redundant content, while other students may have encountered difficulties in keeping up with information so quickly, or they lack foundational knowledge to understand the presented concepts. Moreover, Shapiro et al. (2017) concluded that the most prevalent challenges that students face in the acquisition of knowledge are inadequate background, bad experiences in the classroom with the subject matter, and lack of resources such as financial means, infrastructure, and internet connectivity.

Challenges include attempting to understand and account for the problems students have when learning, with a focus on what happens when students encounter difficulties and get confused. Furthermore, the COVID-19 pandemic has significantly impacted global health and education, leading to learning loss and mental health issues among students. This study highlights the psychological challenges, support provided, and strategies to prevent these issues (Suwathanpornkul et al., 2023).

Integration of Web-based Application in Learning Dance

A web-based dance education application spanning various genres emerges as a potential tool for preserving and propagating intangible cultural heritage (El Raheb et al., 2018; Budiman & Amadi, 2016). El Raheb et al. (2018) argued that web-based application supports dance education as they offer material from different genres, such as traditional dance, and the tool's strong potential in examining, preserving, and propagating intangible cultural heritage where students could use this tool to apply on more theoretical assignments such as learning specific movements in depth as to their

qualities. Furthermore, utilizing information technology helps preserve local culture's existence by introducing and sharing knowledge, making it attractive and practical for information delivery (Budiman & Amadi, 2016). This dance art learning web application is used as a medium of learning in dance learning history and dance performance that also can be used for independent learning for the general public (Budiman & Amadi, 2016). These applications benefit the dancers, dance instructors, and choreographers to learn the figures and the necessary techniques to facilitate the selection of the dance figures and the construction of the choreography (Mihaiu & Gulap, 2015). Furthermore, learners will be able to gain a deep understanding of their practice, particularly in dance style(s) and their learning styles. They will also better understand their strengths and weaknesses by examining and interpreting dance (Cisneros et al., 2020). This emphasizes the effectiveness of the utilization of web applications in quickly acquiring technical dancing figures through animations, descriptive tables, and information provided in the practical lesson (Mihaiu & Gulap, 2016).

This tool is crafted to examine dance figures deeply, determine various style features, and determine user awareness by focusing on the complex interrelationships between the different dance concepts (Cisneros et al., 2020). In line with these, integrating whole-body interaction technologies and motion capture enhances dance learning. It investigates bodily knowledge and practice of dance, creating an effective, enjoyable, and meaningful digital dance learning tool (Raheb et al., 2019). Thus, these technologies are utilized to improve physical activity, a new innovative approach to promoting physical activity that caters to a broad range of diverse individuals, as dance music popularity is growing (Ly et al., 2014).

Enhancement of Learners' Conceptual Understanding through Technology Integration

Mobile technology's quick rise and improvement have created new opportunities for teaching and learning (Wang & Wu, 2017). Technology is a new trend, so educators must stay up-to-date on the latest developments in its applications and how to use it effectively in physical education classes. (Steedman, 2023). Furthermore, these tools may fulfill the educational needs of both teachers and students and essentially cover the core courses in physical education (Deng et al., 2020). The COVID-19 pandemic accelerated technological integration by forcing all educational fields to go virtual (Steedman, 2023). Web-based blended learning is a hybrid of online and in-person classroom group discussions (Yurniwati & Yarmi, 2020). According to Aljraiwi (2016), web applications promote classroom learning environments and learning activities that allow students, teachers, and faculty to use them successfully every day because integrating web applications helps students and teachers have deep educational services and web applications to promote learning and educational opportunities. Moreover, it assists students and teachers in successfully managing and leading educational activities inside and outside the classroom (Aljraiwi, 2016). Sun and Tang (2015) stated that web applications can increase student involvement, encourage active learning, and help students acquire critical thinking skills. Furthermore, students' performance has partially improved (Psycharis et al., 2013). It can also help teachers increase students' conceptual understanding, including ideas and content knowledge, depth within topics, transfer and interactions, and higher-order thinking and inquiry abilities (Rogayan & Macanas, 2019). Additionally, web application enhances conceptual comprehension of mathematical functions when combined with a constructivist instructional approach (Mlotshwa et al., 2020).

Despite the comprehensive exploration of dance as an art form, its cultural significance, and the potential benefits it holds for students, a research gap exists in addressing the specific challenges faced in teaching and learning Philippine folk dance in the school setting. While the study recognizes the importance of preserving cultural heritage, mainly through initiatives like the National Folk Dance Workshop, the K-12 Art curriculum, and other regulating laws, there is a limited examination of the practical difficulties encountered by learners, especially in the context of remembering and

performing the basic concepts and steps in PFD.

With the proposed utilization of the *iSAYAW* web application, this study will aim to fill this research gap by integrating a web-based application to enhance students' conceptual understanding of PFD. However, there is a need for further investigation into the effectiveness of such technological interventions in addressing the observed challenges. Drawing from related literature on the impact of web-based applications on knowledge acquisition, active learning, and critical thinking skills, integrating a web-based application touches on the potential benefits of technology in dance education. However, the specific implications of combining the *iSAYAW* application for students and teachers in the PFD context still need to be explored. Therefore, there is a need for a more in-depth investigation into the practical difficulties faced by students in learning PFD, the impact of the proposed *iSAYAW* application on students' conceptual understanding, and the broader implications of technology integration in the specific context of dance education, especially during times of educational disruption such as the COVID-19 pandemic.

Conceptual Framework

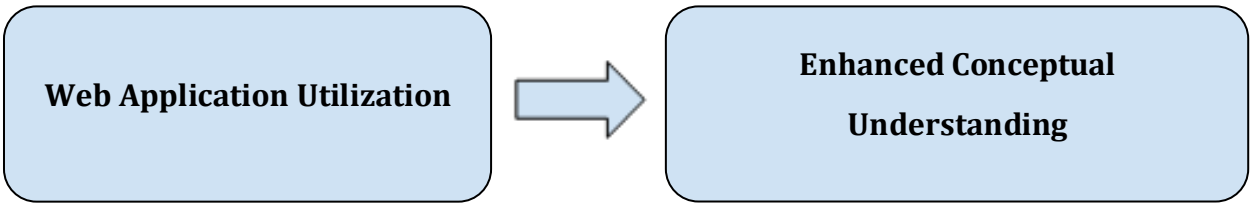

Figure 1. Paradigm of the Study

Figure 1 presents the study's paradigm. It shows the learners' conceptual understanding after utilizing a web application intended for learning Philippine Folk Dance concepts and terms. This shows how the web application can help enhance students' conceptual understanding of the concepts.

Multimedia learning is the central concept of e-learning theory, in which using audio, visual, and text modes rather than relying on a single modality can enhance deeper learning (Mayer et al., 2015). This theory displays that the design and the use of digital learning help enhance and promote effectual learning (David, 2015). Furthermore, e-learning theory is grounded in cognitive science principles and Cognitive Load Theory. Mayer et al. (2015) established design principles to minimize unnecessary cognitive load and effectively manage relevant and meaningful information and intrinsic loads at the levels of learners using the technology. It was noted in the study of Dabbagh (2005) that e-learning theory has three elements defined by a theory-based framework related to learning technology/ies, instructional strategy/ies, and pedagogical models, whereas the theory is linked to practice. Hence, it widened access to higher education to reach many flexibly, allowing learning to take place anywhere and at any time (Kibuku & Ochieng, 2018).

Kibuku (2021) crafted e-learning theory to create attributes and concepts for fostering interaction and collaboration and sought factors that influenced the interaction and cooperation in e-learning by both e-learner's and e-teacher's difficulties during the interconnected learning process. Furthermore, Aparicio et al. (2016) proposed a theoretical e-learning conceptual framework to reveal the emergence of new trends in e-learning and contribute to guiding e-learning studies. Whereas, in the study of Kibuku (2021), there have been numerous attempts concerning the development of an e-learning theory (ies), and they have witnessed a usage and increase in research for the past decade (Aparicio et al., 2016). Therefore, an e-learning theory was applied as a theoretical framework, and the researchers utilized the *iSAYAW* web application as an instructional source for the teaching and learning process to

enhance the students' conceptual understanding of Philippine folk dance concepts and terms.

Aim of the Study

This study aims to assess learners' conceptual understanding of Philippine Folk Dance and to utilize the *iSAYAW* Web Application as an additional source of instruction in teaching and learning Philippine folk dance concepts.

Specifically, the following questions were answered:

1. How do students' conceptual understanding of Philippine folk dance concepts change before and after the implementation of the *iSAYAW* web application in the learning process?
2. Is there any significant increase after the intervention was utilized?
3. How may the experiences of the students be described in the utilization of the web application in improving their conceptual understanding?

Hypothesis Statement

H_1: The post-test test scores are significantly higher than the pre-test scores.

Methods

Action Research (AR) involves implementing strategies and examining their effectiveness towards student learning. This leads to a positive change and development in the social dynamic of participants through self-reflection, analysis, methodological planning, and execution, fostering the transformation of the classroom by enhancing the teaching and learning practices (Pandey, 2023). This study utilized a quantitative approach using a one-group pre-test and post-test design as a strategy of inquiry to determine the students' conceptual understanding of Philippine folk dance concepts. The quantitative approach aims to acquire accurate and authentic measurements that allow statistical analysis, focusing on objectivity, mainly when gathering computable measures of variables and inferences from population samples, which adopts structured processes and formal tools for data collection (Queirós et al., 2017). Moreover, the one-group pre-test post-test design uses a single group of research participants, where data is collected before and after the intervention (Alnazly, 2018). This research approach examines the treated one group throughout the experimentation and modification without utilizing a control group (Patmanthara et al., 2019). Furthermore, a one-group set of participants is being assessed based on the interest of the dependent variable, covering a pre-test, intervention exposure, and followed by an assessment to determine if there is dissimilarity between pre-test and post-test (American Psychological Association [APA], 2020). Therefore, employing a one-group pretest-posttest approach is considered for application to research objectives that reveal the differences between pre-test and post-test. Thus, this quantitative method, along with a one-group pre-test and post-test design, was a suitable design for this action research, which provided a productive way to assess and determine the students' conceptual understanding of Philippine Folk Dance before and after the intervention.

Participants

The context of the present study was focused on a public secondary school situated in Guagua, Pampanga, Philippines. The locale where the respondents were selected is the school where the researchers were deployed for their Field Study 1: Observations of Teaching-Learning in Actual School Environment, Field Study 2: Participation and Teaching Assistantship for the first semester, and Teaching Internship for the second semester. The researchers were assigned to the senior high school department of the school, where they handled students in grades 11 and 12.

The sampling frame was taken from the bona fide students of the Senior High School department, particularly the grade 12 students since they are the ones who are taking dance classes, specifically folk dance. The exclusion criteria were the refusal of the students to participate in the undertaking. The grade 12 students were divided into four (4) classes which coded as follows: Class A (N = 58); Class B (N = 35); Class C (N = 32); and Class D (N = 45), summing a total of 170 students.

Table 1. Frequency of Students per Class

Class Code	Frequency
Class A	58
Class B	35
Class C	32
Class D	45
Total	170

All the classes that the researchers are handling underwent the pre-test, and based on the results, the class that gets the lowest mean score utilized the *iSAYAW* web application, which can help enhance their conceptual understanding of Philippine Folk Dance concepts.

Table 2. Mean and Standard Deviation of Pre-Test Scores

Class Code	$\bar{x}$	*SD*
Class A	24.4	6.48
Class B	26	6.99
Class C	25.9	8.18
Class D	20.8	4.81

Table 2 presents the mean scores and standard deviation of the pre-test scores of the students in which can be seen that Class B got the highest mean score of 26 (*SD* = 6.99) followed by Class C which has a mean score of 25.9 (*SD* = 8.18), while Class A gained a mean score of 24.4 (*SD = 6*. 48), the class who got the lowest results among the classes was the Class D as they obtained a mean score of 20.8 (*SD = 6*. 48). Thus, it was found out in the pre-test results that Class D gained the lowest mean score. Therefore, they were selected to use the *iSAYAW* web application that the teacher will use to aid the student's learning process of Philippine Folk Dance concepts. The same class will be assessed after the month-long implementation of the intervention for the post-test. The rationale for selecting the class to whom the intervention was utilized was chosen using the convenience sampling technique. The convenience sampling technique is a nonprobability or nonrandom sampling where respondents in the study who are included in the target population are included due to certain practical criteria such as "easy accessibility, geographical proximity, availability at a given time, or the willingness to participate," this sampling method is often referred as Haphazard Sampling or Accidental Sampling (Etikan et al., 2016). Additionally, convenience samples are occasionally seen as "accidental samples" since elements in the sample may be chosen simply because they happen to be located, either spatially or administratively, close to where the researcher is collecting data (Etikan et al., 2016).

Intervention

The *iSAYAW* web application (Simon et al., 2024) was used to foster students' conceptual understanding of PFD. While the *iSAYAW* web application was primarily developed and beta tested (student-focused evaluation) in a teacher education institution, particularly among pre-service physical educators, it is a noteworthy exploration to examine its applicability in basic education instruction. In line with this, Lucero (2021) claimed that technology-driven instruction enhances students' proficiency in folk dancing performance.

It was observed during the classes on folk dances under the Health Optimizing Physical Education subject that students experienced difficulties in understanding, remembering, and performing the basic concepts and steps of Philippine folk dance (PFD), which the researchers arrived at the thought of utilizing web application to assist and supplement the teaching-learning process as well as to enhance the senior high school students' conceptual understanding of fundamental concepts and dance terms in Philippine Folk Dances. Meanwhile, Mihaiu and Gulap (2016) highlight the

efficiency of using web applications to quickly acquire dance figures through animations, descriptive tables, and information about the technique learned in the practical lesson. Hence, the learners gained a deep understanding of their practice and could better understand by observing, analyzing, and interpreting the dance (Cisneros et al., 2020). Moreover, web applications can increase student involvement, encourage active learning, and help increase the students' conceptual understanding (Rogayan & Macanas, 2019; Sun and Tang, 2015).

The *iSAYAW* learning app, similar to any typical application, comprises a user interface. This interface is divided into two main sections: the admin user interface and the primary user interface, commonly called the student user interface. The admin user interface includes additional pages designed for fundamental app control, whereas the student interface encompasses only the essential pages and features necessary for their learning experience.

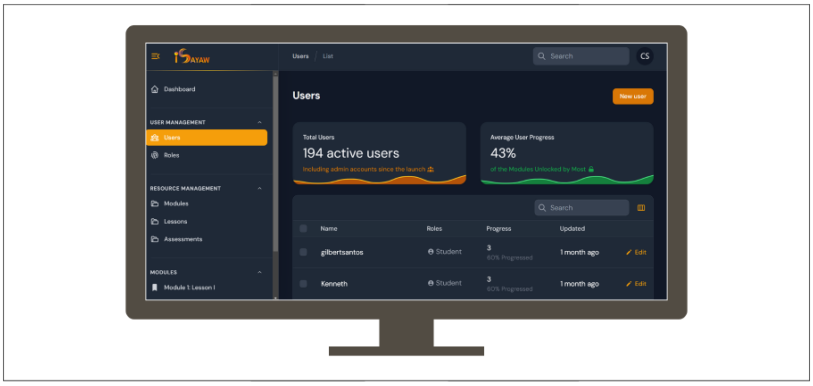

Figure 2. The iSAYAW Web Application Admin User Interface

Figure 3. The iSAYAW Web Application Student User Interface

Education is a lifelong process that shapes the quality of life of an individual. Whereas, developing teaching-learning materials is one of the significant aspects of promoting student learning which helps achieve academic goals and objectives (Kapur, 2019). Lewis (2016) noted that teaching-learning materials (TLM) encompass a wide range of educational materials that teachers use within the classroom to support the targeted learning objectives that are outlined in lesson plans". Moreover, these tools are utilized by teachers and instructors in schools to facilitate learning and understanding of concepts among students (Kapur, 2019). Hence, using TLM in the classroom brings life to the teaching and learning process (Dhakal, 2014) and enhances the delivery of instruction or lectures in the class where learners experience real joy in learning various concepts (Ansary, 2022). With that, the *iSAYAW* Web

Application will serve as a TLM for the teachers and students to assist the teaching-learning process that enhances students' conceptual understanding of the fundamental concepts in Philippine Folk Dances.

Lucero (2021) stated that computer-assisted instruction enhances students' proficiency in folk dancing performance. The *iSAYAW* web application was intended to be used as teaching-learning material during class discussions, which promotes technology integration in the actual teaching and learning process. The application's content will be grounded on the actual lesson contents based on the curriculum guide provided by the Department of Education (DepEd) and the learning materials used during discussions. The application aims to help the teacher and the students navigate the realm of folk dancing by capitalizing on its rudiments and basic concepts. The application can be utilized through the web and is searchable online. The student (user) can create their account as the first step in accessing *iSAYAW.*

The *iSAYAW* web application's goal and features were described in an introductory session held by researchers before the intervention's start, focusing on the tool's function as a guide. To provide universal access, students were urged to create their account on the online application before the intervention. After that, students were given practical help using and navigating the online application on the first day of the intervention. The *iSAYAW* web program served as an all-inclusive research guide, providing users access to all intervention modules' contents, allowing for smooth interaction and study of folk dance steps.

Teacher implementers and students regularly used the web application intended to help with the learning and practice of folk dance steps during the four-week intervention. Module 1 of the intervention started with teaching students the abbreviations and signs used in folk dance that were covered in the module. Using the application as a guide, the teacher-implementers ensured students could easily follow along and assisted in this process. Subsequently, the students already know how to use *iSAYAW* in the second intervention. Module 2 explores various folk dance genres and examines the fundamental arm and foot positions inherent in folk dance techniques. The integration of a web application has notably streamlined teaching methodologies. Students engage with the application to synchronize the origins and cultural roots of different folk dances with researchers' discussions, facilitating a more comprehensive understanding of the subject matter. In the third intervention, within Module 3, the teacher-implementers effectively instructed students on the Common Dance Terms using the *iSAYAW* web application. Throughout the session, students actively engaged with the application on their mobile devices, ensuring their focus remained on the content within the *iSAYAW* app, optimizing learning outcomes, and minimizing distractions. Nevertheless, Module 3 took longer than expected until the fourth intervention. In Module 4, researchers expedited the instruction of Basic Dance Steps in folk dance by integrating the comprehensive resources available on the *iSAYAW* web application. This utilization of technology ensured the inclusion of essential dance steps and significantly accelerated the completion of Module 4, underscoring the efficacy of incorporating digital tools in educational settings. Lastly, Module 5 was tackled on the fifth day, the intervention's last day. Whereas this is the final component of *iSAYAW* that is being implemented, the researchers guided the students throughout the intervention of different folk dance steps. Both teacher-implementers and students consistently utilized the web application to facilitate a structured approach to teaching and learning the concepts and movements of PFD. Overall, this application provides a dual purpose as both a learning tool and a resource for student review, as it offers a convenient reference point. Particularly when the students have difficulties recalling specific dance steps. Moreover, incorporating instructional videos in the *iSAYAW* application allows the students to explore independently and master different folk dance steps, fostering self-directed learning even without the presence of the instructor. This multipart functionality emphasizes the creativity and efficacy of digital resources in terms of facilitating a broad range of dance ed-

ucation. In terms of integration into the curriculum, this web-based application learning material system and its content on each module were designed in a spiral progression approach, ensuring that the foundational concepts can be reviewed and systematically reinforced throughout the learning process. Beyond the alignment of the spiral progression principles, this application enhances the retention of knowledge and the skill development of the students by increasing the effectiveness of overall educational experiences in folk dance.

Instruments

A Table of Specifications (TOS) was crafted as a pattern for creating the test ensuring the set of questions is balanced and diverse to accurately measure the subject matter. The researchers made and administered a 50-item test that is related to Philippine folk dance covering different types of folk dances, fundamentals of arms and feet positions, dance terms and steps, counting patterns, step patterns, and measurements to measure the conceptual understanding of senior high school students about Philippine Folk Dance. This test was developed from the K-12 curriculum learning contents and topics tackled in class. The researchers analyzed the content of the SHS curriculum guide to identify the topics that are included in the test. Moreover, after the analysis, the test was created by the researchers and was subjected to face validation. Lynn (1986) stated that face validation "includes validity by assumption."

Experts in the field such as a Philippine folk dance facilitator (n = 1) and a physical education teacher (n = 1) were asked to validate the researcher-made test so that its content measured what it claimed to measure. This process is integral in selecting or applying an instrument to be used in an undertaking like research, "for validity is the extent to which that instrument measures what it is intended to measure" (Lynn, 1986). The validated research-made test assessed the conceptual understanding of the SHS students in Philippine folk dance (pre-test and post-test). The post-test result is the benchmark of whether their conceptual understanding was enhanced.

To amplify the quantitative results, the researchers made three (3) questions that were answered by the participants who participated during the intervention and experienced using *iSAYAW*. They answered the questions through a standardized open-ended interview. This type of interview, in terms of the wording of the questions, is highly structured in which participants are asked the same questions (Turner, 2010). The insights and experiences gained by the learners from using the web application were drawn after the interview. Hence, the questions were structured as follows:

1. How does the *iSAYAW* web application help you to increase your post-test scores?
2. Describe your experience in using the *iSAYAW* web application.
3. What are the challenges you have encountered in using the *iSAYAW* web application?

Data Gathering Procedures

The teacher-implementers sought permission through a letter to the school's principal where they are deployed for their teaching internship. The purpose and the aim of the study are contained in this letter. The study primarily focuses on enhancing Filipino senior high school students' conceptual understanding of Philippine folk dance using the *iSAYAW* web application because the researchers were assigned to the senior high school department of their cooperating school where the problem was first encountered. The main data-gathering tool utilized by the researchers was a researcher-made test; this was floated to the respondents via Google Forms which they were given an hour to accomplish. The pre-test was floated to four (4) sections in which the group to whom the intervention is to be implemented was determined. After the 4-week intervention, the same test was floated with the section that gained the lowest mean to assess if the web-based application enhanced their conceptual understanding.

After the data for the quantitative part was analyzed, these results were supplemented by responses from the students on how the application helped them improve their pre-test scores, their experiences utilizing the application, and what challenges they encountered

upon using *iSAYAW*. Thus, the researchers conducted a focus group discussion where confirmatory qualitative questions were asked to students purposively selected based on their pre-test scores to gather information. Focus group discussions are an efficient and successful method to get insights into social processes (Basnet, 2018). Moreover, after insights and experiences of the participants were gained, the teacher-implementers proceeded to contextualize them with the result of the pre-test and post-test.

Ethical Considerations

Ethical considerations guided the conduct of the study. This study adhered to the standardized ethical guidelines of the National Ethical Guidelines for Health and Health-Related Research (Philippine Health Research Ethics Board, 2017), Belmont Report (National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, 1979), and the Philippine Data Privacy Act of 2012 (Republic Act 10173). An informed consent form for those who are of their legal age and an assent consent form for those who are aged 17 and below were given to the participants, respectively; the purpose of this is to inform them about the aim and objective of the study, the benefits, confidentiality and anonymity, risk (if any), and the process of their selection to participate. Moreover, participation in the study is voluntary, which allows the participants to decide whether to participate or not. In line with the Data Privacy Act of 2012, the personal information of the participants is protected and treated with confidentiality. Furthermore, the Belmont Report outlines three ethical principles: (1) respect for persons, (2) beneficence, and (3) justice.

Data Analysis

In this study, researchers employed descriptive statistics to comprehensively analyze, summarize, and organize all data collected. Descriptive statistics enable a quantitative data summary by using measures like mean and standard deviation (SD). The statistical approach was selected because it is effective at giving a clear and brief summary of the data that has been collected. To improve the depth of analysis, the study also thoroughly examined the data distribution and looked for relevant patterns. Meanwhile, a one-paired *t*-test was used in the study to test the hypotheses. Additionally, the researchers used Stata MP Version 14.0 software to analyze the inferential statistics to obtain normality test results. Furthermore, in interpreting the results, the following scale and interpretation were used:

Table 3. Statistical Ranges and their Corresponding Verbal Description

Statistical Ranges	Verbal Description
3.25 - 4.00	Strongly Agree (SA)
2.50 - 3.24	Agree (A)
1.75 - 2.49	Disagree (D)
1.00 - 1.74	Strongly Disagree (SD)

The scores collected from the researcher-made test, for both the pre-test and post-test, were also organized using normal distribution and descriptive statistics. Moreover, the interpretation of the mean score was made using the score ranges and their corresponding verbal interpretation. Additionally, students' conceptual understanding of Philippine folk dance based on their scores was interpreted and categorized as seen in Table 4.

Table 4. Score Ranges and their Corresponding Verbal Interpretation

Points / Scores	Verbal Interpretation
48 - 50	Very High
36 - 47	High
17 - 35	Average
5 - 16	Low
0 - 4	Very Low

Work Plan

This study employed a four-week intervention, this was decided based on the coverage of the content of *iSAYAW* and the availability of time for the conduct of the study. Northey et al. (2018) found that a 4-week physical exercise intervention improves cognitive function. Similarly, Nouchi et al. (2016) also utilized a four-week intervention to investigate the effects of 4 weeks of processing speed training on cognitive functions and emotional states of elderly people, and it was shown that there is an improvement in cognitive functions after four weeks of intervention periods. Moreover, Van Hoye et al. (2015) assessed the effect of different levels of feedback—from the minimal to the use of a feedback display and coach—on PA over a 4-week intervention period in which there was an increase in physical level of activity after four weeks of the intervention period. The scope of the implementation of the *iSAYAW* web application was sufficient for the teachers and students to use it as a teaching and learning tool.

Results and Discussion

This section provides a specified description of the study's results concerning its objectives and research questions. It also thoroughly analyzes the score distribution, mean score, and standard deviation of the respondents' conceptual understanding of Philippine folk dance before and after the intervention. Moreover, this chapter also discusses the normality test and the difference between the pre-test and post-test results.

Score Distribution of the Respondents' Conceptual Understanding of Philippine Folk Dance Before the Intervention

Table 5 shows students' conceptual understanding of Philippine Folk Dance concepts. Eight (18%) of the respondents got a low score ranging from 5 to 16 points, while the remaining 82% (n = 37) got an average score of 17 to 35 points.

Table 5. Frequency Distribution of Pre-Test Scores

Scores	Very Low		Low		Average		High		Very High		Total	
	F	%	F	%	F	%	F	%	F	%	F	%
	0	0%	8	18%	37	82%	0	0%	0	0%	45	100%

Note: 48-50 points (Very High); 36-47 (High); 17-35 (Average); 5-16 (Low); and 0-4 (Very Low)

Table 6 presents the mean and standard deviation of the pre-test results based on the students' raw scores. It can be gleaned that a mean score of 20.84 (*SD* = 4.81) was obtained during the pre-test indicating an average level of conceptual understanding of the Philippine Folk Dance concepts.

Table 6. Mean and Standard Deviation of the Pre-Test Scores

$\bar{x}$	*SD*	Verbal Description
20.84	4.81	Average

The pre-test results are shown in Table 5 and Table 6, which indicate that students' conceptual understanding of PFD concepts is on an average level and that this can still be improved by focusing on increasing students' comprehension of the concepts. Lobo (2022) stated that students' interest in the country's traditional dances appears to be dwindling. Putri and Widiyono (2022) concluded that the students' dance skills were lacking and were still below the average level, noting that students could not demonstrate every detail of the dance movements and had difficulties distinguishing movements from one another. Similarly, Reyes et al. (2020) found that students' dancing skills are lacking, hindering them from performing Folk Dance and increasing their interest. This problem may be related to the decreased exposure given to students, who strongly emphasize the traditional dances of the Philippines

(Buedron, 2017; Lobo, 2022; Reyes et al., 2020). Moreover, a rapid rise in the popularity of other dancing styles from other countries has made it easier for students to learn faster, as they are more interested in watching and participating in these popular dances than in folk dances. Consequently, the youth in the Philippines disrespect and jeopardize the country's rich cultural heritage and longstanding traditions (Reyes et al., 2020).

Score Distribution of the Respondents' Conceptual Understanding of Philippine Folk Dance After the Intervention

Table 7 presents the mean and standard deviation of the post-test results from the test taken by the respondents. After the month-long utilization of the *iSAYAW* web application by the students, it was found that students' conceptual understanding of the PFD was enhanced. It shows that 22 (49%) of the respondents got a score ranging from 36 - 47 points, which indicates a high score, while 49% (*n* = 22) got an average score of 15 - 35 points. Moreover, only one (2%) of the 45 respondents got a very high score. However, no recorded scores were within the 'very low' or 'low score.'

Table 7. Mean and Standard Deviation of the Post-Test Scores

Scores	Very Low		Low		Average		High		Very High		Total	
	F	%	F	%	F	%	F	%	F	%	F	%
	0	0%	0	0%	22	49%	22	49%	1	2%	45	100%

Note: 48-50 points (Very High); 36-47 (High); 17-35 (Average); 5-16 (Low); and 0-4 (Very Low)

The mean score and standard deviation of the post-test scores are shown in Table 9. Compared to the pre-test scores, the post-test yielded a mean score of 34.64 (*SD* = 8.03), specifying an average score. This indicates that students' conceptual understanding of the Philippine Folk Dance concepts increased with the help of the *iSAYAW* web application in the teaching-learning process. According to Munoz et al. (2023), there was a rise in the scores of Grade 8 students after the intervention of Contextualized Offline Video Dance (CODIV) Instruction in mastery of the Folk Dance Performance, as well as a significant difference in the pre and post-test scores. In line with this, most students had learned the fundamentals of the dances after being exposed to various folk performances, which enhanced their understanding of the nature and purpose of folk dancing as they were able to recognize the significance of folk dancing in the preservation of culture (Adolfo et al., 2023). Similarly, Lobo (2022) revealed that most students are interested in learning folk dance, including dance steps, music, costumes, and dance history. Thus, Mandadero et al. (2024) utilized a web application to preserve Philippine folk dances which noted that there were improvements in the dance hand postures that resulted in more graceful movements and postures improved from the representation of different figures in the dance which a mobile application was also created to further improve the dance learning experience through footsteps and hand visualizers, which are automated in the application.

Table 8. Mean and Standard Deviation of the Post-Test Scores

$\bar{x}$	*SD*	Verbal Description
34.64	8.03	Average

A normality test has been run on pre-test and post-test results through Stata MP 14.0. The intended objective was to determine whether the data followed a normal distribution. Table 10 presents the normality test results performed via the Shapiro-Wilk method. The Shapiro-Wilk test compares a dataset to the null hypothesis to see whether it is normally distributed. A test statistic and p-value are produced, with a lower p-value denoting non-normality and a greater p-value showing normality. A computed p-value that is greater

than 0.05 is indicative of a normal distribution. Contrarily, a p-value of less than 0.05 denotes a non-normal distribution (Bobbit, 2024). Referring to the table above, the pre-test and post-test results have Shapiro-Wilk test p-value greater than the alpha level (α) of 0.05, indicating that the data for this variable is normally distributed. Hence, a parametric statistical tool is more suited for assessing these variables (Frost, 2023).

Table 9. Normality Tests on Pre-Test and Post-Test Results using Stata MP Version 14.0 Software

	W	V	z	Sig.	Interpretation
Pre-test	.991	.394	-1.976	.976	Normally Distributed
Post-test	.959	1.780	1.222	.111	Normally Distributed

Difference in Pre-Test and Post-Test Results

After the intervention, the scores from the post-test had higher values (*M* = 34.64, *SD* = 8.03) than the scores from the pre-test (*M* = 20.84, *SD* = 4.81). A paired samples t-test showed this difference was statistically significant, *t*(44) = -9.143, *p* = .001, 95% confidence interval [-16.842, -10.758]. This test produced a p-value of .001 below the defined significance level of 0.05. Therefore, the result is significant, and the study accepted the alternative hypothesis.

Table 10. Summary of Pre-Test and Post-Test Results

	Mean	SD	Std. Error
Pre-test	20.84	4.81	0.72
Posttest	34.64	8.03	1.20

Table 11. Paired Samples t-test (One-tailed)

	t	*df*	*p*	Decision
Pre-test - Post-test	-9.143	44	.001	Accepted the Alternative Hypothesis

Test scores show that the post-test mean score of 34.64 (*SD* = 8.03) was higher than the pre-test mean score of 20.84 (*SD* = 4.81). This confirms that the *iSAYAW* web application increases the conceptual understanding of the students in Philippine folk dance concepts. This supports the claim of Munoz et al. (2023) that after the intervention of Contextualized Offline Video Dance (CODIV) Instruction to Grade 8 students in mastering Folk Dance Performance, there were significant changes in the pre and post-test scores, with an increase in the post-test scores compared to the pre-test results. Similarly, Lucero (2021) revealed that the students obtained higher scores after the intervention was employed indicating they had developed the fundamental knowledge, skills, and core understanding of folk dance compared to their pre-test results, which showed the level of performance of the second-year BPEd students in the pre-test were still developing, possessing the minimal knowledge and skills and core understanding in folk dance. Both test scores indicate that the post-test scores were higher than the pre-test scores, suggesting that multimedia computer-assisted instruction effectively improves students' performance in learning folk dance.

Students Experiences in Using the *iSAYAW*

The application's prominent features facilitated a pleasurable and satisfying user experience, making the learning process enjoyable. The *iSAYAW* application's intuitive navigation and accessibility allowed learners to revisit the content for topic review quickly. Furthermore, the web-based application required minimal supervision, enabling learners to engage with the learning material independently. This demonstrates that *iSAYAW* effectively enhanced users' conceptual understanding of Philippine folk dance through its comprehensive functionalities and content.

"My experience using the iSAYAW web application was good and fun because it really helped me learn new things related to dance. It was really a good thing to use because you are learning and having fun at the same time." -P1

"Madaling intindihin masaya siyang gamitin and nakaka-enjoy po sa part na mag te-take ka ng test pagkatapos makikita mo din yung result ng test mo sa dulo" (It's easy to understand, it's fun to use and you can enjoy the part where you will be taking a test and then you can see the result of your test at the end) -P2

"It's fun to use, it's fun to read this app, no matter how many times you open it, you can read it again and again" -P3

"I enjoyed using the iSAYAW web because I get to learn more things. I get to study on my own because it's accessible and easy to learn" -P5

El Raheb (2018) claimed that web-based learning systems have become a promising tool for learners in terms of studying specific movements, likewise, these applications have been seen to support dance education. Moreover, Cisneros et al. (2020) asserted that these tools were designed to support an in-depth inquiry into dance movements and allow learners to acquire a deeper understanding of their practice through observation, analysis, and interpretation of dance. Furthermore, the integration of whole-body interaction and motion capture has been proven to enhance dance learning, which was achieved through practical, enjoyable, and meaningful educational experiences (Raheb et al., 2019). Moreover, web applications are used as a medium of education in dance, which can be used for independent learning by the general public (Budiman & Amadi, 2016).

iSAYAW Web Application as a Tool for Improving Folk Dance Conceptual Understanding

The *iSAYAW* web application has significantly enhanced students' conceptual understanding of Philippine folk dance. It was found that students have learned from navigating the features and content of the web application. In the previous years that folk dance was being taught to them, the experience of learning them in detail was compromised because teachers could not elucidate the different folk dances and demonstrate the steps and counting patterns that *iSAYAW* had offered them. Learning using the web-based application mitigates their learning and acquiring of skills in folk dancing as it has not only the step and counting patterns of each step but also an illustration that serves as a guide for them to perform.

"Nakatulong ang iSAYAW sa amin dahil kasama doon 'yung mga content na hindi naituro sa amin dati" (*iSAYAW* helped us because it included contents that were not taught to us before) -P2

"With this iSAYAW app, I also learned the correct other arm and feet steps used in folk dancing" -P3

"iSAYAW web application helped me improve my knowledge of folk dance. My knowledge has expanded because of the application" -P5

"Nakatulong siya dahil po dun sa naka illustrate na video niyo po, 'yung may guide then ginagaya po namin siya parang na re-recall po namin sila" (The application had helped because of the videos which illustrated steps, these serves as a guide for us which we imitate, in this way, we seemed to be recalling the steps) -P6

Mihaiu and Gulap (2016) emphasized the efficiency of using a web application in terms of more rapid acquisition of the technical dancing figures by the students in participating in physical education classes. Similarly, El Raheb et al. (2018) noted that web-based applications have a strong potential as a tool in supporting dance education, which provides access to a repository of multimodal dance recordings such as motion capture data, video, and audio that the students themselves could use to practice on studying more specific movements in depth as to their qualities. Furthermore, Kalushkov (2023) stated that the implementation of modern technologies increases the motivation of learners many times by training process and heritage preservation of folk dance among

young people. In line with this, Kico et al. (2018) used digital information for accurate folk-dance representation to make transmitting knowledge easier which is suitable for various purposes and applications to digitalize folk dances. Whereas, this provides new ways for dance teachers to communicate more detailed dancing elements to learners. However, Susu (2018) stated that a small number of specialists have competencies for training in the field of folk dance. Wherein the folk-dance information in terms of cultural background, emotional expression, and artistic style is often overlooked (Li, 2024).

In the Philippines, the competence of MAPEH (Music, Arts, Physical Education, & Health) teachers in teaching Samar Folkdance is low which indicates that there is a need for further review and training of their knowledge and abilities in terms of their application in the classroom and cultural presentations which is shown that teachers lack expertise in terms of step patterns, time signatures, and motions in folk dance (Dacanay et al., 2021). Consequently, not all the teachers in school are knowledgeable about folk dance; they only just teach the dance steps to the students but not how to value the literature and the history of the dance which the students have difficulties understanding the literature of the folk dances (Reyes et al., 2020). Hence, Aristidou et al. (2015) designed enhanced learning tools and processes for teaching and learning dance through understanding and observing one's movement which helps students develop critical skills and enhance their movement literacy, as well as provides more accurate dance movements captured and effective teaching support can be provided (Li, 2024).

Challenges Encountered by the Students in Utilizing the *iSAYAW* Web Application

Given the multiple advantages of using the web-based application, some factors hinder learners from utilizing it. The major problem that *iSAYAW*'s users have encountered is the internet connectivity problem as the application is only accessible on the internet. In line with this, learning using the *iSAYAW* web application is limited or impossible because of the slow or no internet connection.

> *"My challenge on the using the iSAYAW web is the signal because if you don't have data or load you can't open the web"* -P1
>
> *"'Yung naging challenge lang po sakin is yung pag mahina 'yung net hindi lalabas 'yung illustration ng isang step pag 'di ako familiar sa step nahihirapan ako na i-visualize siya"* (The only challenge for me is that when the net is weak, the illustration of a step will not appear. If I am not familiar with the step, it is difficult for me to visualize it) -P2
>
> *"The only challenge in the iSAYAW app is that you really need an internet connection to access it"* -P4
>
> *"Ang challenge lang po para sakin ay 'yung kapag mahina ang signal at walang load ay 'di mo po mabubuksan ang iSAYAW web application"* (The only challenge for me is that when the signal is weak and there is no load, you cannot open the *iSAYAW* web application) -P6

Ybanez (2022) revealed that there is a lack of accessibility to fast, and dependable internet connectivity which prohibited the effectiveness of online learning whereas students are having a hard time doing tasks and submitting their activities. Similarly, Chandrasekaram (2022) noted that students are left frustrated and struggling to experience internet connectivity issues. Moreover, Rara (2023) stated that online instruction effectively teaches folk dance. However, because of the internet connection, students found it more challenging (Muthuprasad, 2021).

Conclusion

This action research study aimed to enhance senior high school students' conceptual understanding of Philippine folk dance concepts using the *iSAYAW* web application that was implemented in the scheduled classes of the second semester of the school year 2023-2024. Meanwhile, technological advancements have had various implications for students and their everyday lives, particularly in terms of education. In this study, students have experienced an enjoyable learning environment using a web-based system. Likewise, this experience

opens the doors for them to learn independently, but they need minimal supervision. Moreover, utilizing technology-based learning material improved the students' learning experience. Furthermore, students' conceptual understanding was enhanced due to the integration of a web-based learning system into their face-to-face discussion, which mitigated the teaching-learning process of Philippine folk dance.

Reflection

Given the vast benefits of using the application during the teaching and learning process of Philippine folk dance, the teacher-implementers realized that students are actively engaged during the discussion, especially when using technology-driven tools to mitigate their learning. Meanwhile, students' foundational knowledge about folk dances was observed to be little, given that they had already studied these concepts prior to attending senior high school. However, students are keen to learn about these concepts, especially when being supplemented by technology, as they view it as enjoyable. Furthermore, it is also observed that students' knowledge retention of the dance concepts could have been stronger as they experienced difficulties in recalling them. In cognizant of this, continuous updates to the application, accessibility, and usage of the students must be implemented to continue learning from the web-based material.

Limitations

Utilizing the *iSAYAW* web application offers significant benefits to Philippine folk dances' teaching and learning process; however, subsequent hindrances were also faced during its implementation. The major limitation is that students' learning experience is limited when they encounter poor internet connection or lack of access. Furthermore, *iSAYAW* content patterned after the curriculum was only limited to the Philippine folk dance concepts, which means that the *iSAYAW* application does not cover a broader range of PFD that might help students gain more in-depth knowledge and understanding. Additionally, the web-based learning material was used only during face-to-face classes because of the time constraints and is limited to four weeks only given that the students are deployed on their work immersion, which delayed the implementation of the intervention, and class schedules are purely conducted for half-day only because of the high heat index weather conditions. Moreover, only the class with the lowest mean had the chance to use the application, which was set at the onset of the study. In addition, the application was only utilized by senior high school students enrolled in public secondary school, and other grade levels, including private schools, remain unexplored as they did not have the chance to use this educational tool, potentially that other students might benefit from this learning material that could provide them a more comprehensive understanding of Philippine folk dance.

Recommendations

It is recommended that learners be encouraged to explore the lessons on the *iSAYAW* web application so they can have prior knowledge by familiarizing themselves with the content before participating in scheduled interventions; this could also ease the accessibility of the application during face-to-face discussions, making it more productive, and enhancing their overall learning experience. Further, the application's content should be expanded by incorporating a more comprehensive range of topics covering all aspects of folk dance-related concepts so that the students gain a broader knowledge and more in-depth understanding of Philippine folk dances. Furthermore, the implementation period of using the *iSAYAW* application is proposed to prolong the duration of engagement so that learners can be more immersed in using the application. This extended exposure will likely lead to a deeper understanding and better retention of information about folk dance concepts. Additionally, using the *iSAYAW* application should not be limited to a single grade level. By making this educational resource available to other grade levels and should be made accessible to other academic institutions, including private schools. Extending its use beyond the current setting, a more significant number of students can experience the benefits of this innovative learning tool. This more comprehensive implementation can enrich students' knowledge and appreciation

of cultural heritage and promote the preservation and dissemination of Philippine folk dance traditions across diverse educational environments.

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