**Rizal Technological University**

Institute of Physical Education

**MOTIONLIT WEBSITE: MOTOR LEARNING IN PHYSICAL EDUCATION THROUGH DANCE AND SPORTS**

Project Based Learning (PBL) Output

Delgaco, Rica D.

Alota, Benjamin Jr. III A.   
Ramos, Jonas I.  
Yangga, Jomari C.

IPE-01-601A MH 1:30 pm- 3:00 pm

Professor Mark Joseph D. Santos

Abstract

Summarize the entire study

(Although the abstract appears at the beginning of the article, it should be written after you have completed the whole report. The abstract summarizes the whole document in a few lines, including a sentence or two explaining the report's aim and significance, a sentence or two about your techniques, a few phrases presenting the report's principal results, and a sentence or two discussing the report's implications.) **.)\*\*\*Please delete this guide when you are creating your paper.**

Minimum of 1 page

Introduction

Movement is the center of any steps we’re making. People’s movement reflects the motor learning implied. In this time of disease and uncertainty, movement acquisition shouldn’t stop because it is the foundation of making broader actions. Little do students know that in simple actions they do, they acquire motor learning before it became a motor skill. During this time of the Covid-19 Pandemic, limitations on social life and education were slow because of the spread of the virus. That leads to an increase in social isolation and limitations on travel, social gatherings, on-site work, leisure activities, and sports. School attempts to continue learning through distance learning tools such as blended learning modality (Filiz and Konukman, 2020). According to Gazali and Mujiono (2021), in today’s setup, educators and students face challenges in learning modalities in online learning of physical education. Amidst the pandemic, online learning on physical education became a struggle for most students and they see it as ineffective.

A growing number of researches mostly associational studies reveal that the connection of movement expertise together with mental components of development is highly observed in the early stage of children. Those children who attain movement competently will have a better intellectual capacity (Capio et al, 2021). Most of the resources such as literature, research, and studies about motor learning in physical education focusing on dance and sports are made and take place internationally. The Philippines has a lack of resources and studies related and could contribute to the area of study. Face to face classes before the pandemic, physical educators effectively discusses the motor learning in physical education on dance and sports but nowadays, learning in physical education takes place in distance learning tools like blended learning modality and it is a huge challenge for physical educators to promote learning since it is more on movement application activity. Apriyanto (2021) stated that most students during online activities do not attain major impacts physically and psychologically. Students much prefer a mix of learning online and offline. Students are a high level of interest in using online platforms given by teachers as well as approaches under online learning methods. This study is intended to bridge the gap between internationally available resources and the lack of local resources in the Philippines as well as provide more learning opportunities and understanding to students in motor learning in physical education through dance and sports from face-to-face classes to blended learning modality.

This study aims to provide detailed information and sample demonstration about motor learning in dance and sports to deeply understand physical education in a blended learning modality by which students could read and watch directly on the website or could print out the lectures and activities at their home. Also, this website is open for contributors to impart their knowledge and expertise to provide more efficient knowledge to be learned by readers.

Methods

The study utilizes a website called “MotionLit” as the main platform for imparting knowledge to students. MotionLit is a classroom-inspired desktop user-friendly website that will be operated to effectively teach the student about motor learning in physical education through dance and sports by using a blended learning modality. It has a tagline “LEARN AS YOU MOVE” which emphasizes learning as they execute given movements. It also highlighted that in every basic dance step and sports skill, motor learning is present. A blended learning modality is used through MotionLit’s online and offline features. MotionLit Online features offer extensive discussion using video lectures, and quiz videos as well as links to other media platforms like the MotionLit Facebook page and MotionLit Email where they could message their questions and feedback and send their works, also MotionLit google drive and Motionlit YouTube Channel where they could watch and download the posted videos, while MotionLit offline features offer downloadable files of the lecture hand-out, quiz answer sheet and answer key. The target objective of the website is to allow students to experience the virtual classroom setup, to provide a comprehensive discussion of motor learning in physical education through dance and sports, to demonstrate actual dance steps and sports skills, and deeply explain existing motor learning on it, to effectively teach physical education to students through a profound understanding of motor learning using blended learning modality (Online and Offline features.) and lastly, to provide a platform that will entertain inputs and takeaways of students and collaborators.

MotionLit provides two virtual classes such as dance and sports where students could imaginatively enroll themselves. Students don’t need to log in or make an account to explore the website. A student may proceed to MotionLit virtual hall to choose among two virtual classes that they are interested in, such as the dance class and sports class. Each room provided voluminous information, video lectures an,d quizzes as well as downloadable lecture, quizzes’ answer sheets and answer keys about motor learning in physical education focusing on dance and sports. In this way, students may be able to learn according to their learning style as well the availability of their internet connection. MotionLit also provides a virtual forum that serves as a platform for other researchers or experts to contribute their works and knowledge towards motor learning in physical education through dance and sports. Aside from that, readers may be able to share their thoughts, comments, suggestions, and questions through the virtual forum.

The initial stage in the creation of the MotionLit website is to address the driving question “How can I teach physical education effectively to my students by having a vast idea of motor learning using the blended learning modality?” From there, the group collaboratively discuss the strategies, website design, coding, content, and objectives, and consultation with the professor was also included. There is also dissemination of tasks, responsibilities, and assigning the deadline as well as the gathering of information needed for the website and research study. After gathering, there’s also the compilation of information gathered by researchers in the website content and research study as well as redesigning and embedding necessary content in the website. Video Editing is even used since it requires video lectures and quizzes to be uploaded to the website. To maximize the use of different platforms that may be used, we made a MotionLit Facebook page, MotionLit Email, MotionLit Google drive, and MotionLit YouTube channel where readers and collaborators could message questions and feedback, send their works, watch videos and download files. After those processes, we published online the website through the guidance and help of our IT friend. The next stage will be the student’s trial in exploring the website and presentation of the project. Lastly, the researcher gathers the recommendations and opinions for further improvement of the MotionLit website.

**Review of Related Literature**

* 1. **Motor Learning in Physical Education**

Spittle (2021) mentioned that Motor learning and skill acquisition refers to the exploration of how we acquire, develop and progress skills in moving. Physical Education and sport aim to assist in skills acquisition. Motor learning deals with the study of the development of skilled movements along with repetitions or other learning-associated components. He also stated that Motor learning experts at colleges and universities play an important role in undergraduate and postgraduate individuals. Subjects under motor skills learning such as motor control, movement skills, motor development, motor learning and skill acquisition, coaching, and physical education. Aside from teaching academically, physical educators proceed to postgraduates’ fields, like masters and doctoral studies concentrating on the acquisition of motor skills in physical education and practice these learnings in teaching elementary and secondary schools- they are also classified as skill acquisition specialists.

According to Donelly et al (2016), the goal of physical education is to motivate and enhance learning to move as well as to have learned through movement. Physical Education barely a learning area existing in the curriculum that emphasizes enhancing students’ movement skills and concepts. In physical education, the enhancement of motor skills is vital by which if there will be a failure in enhancing and smoothening movement skills, it will be hard for children to prosper and appreciate physical activities and active lifestyles.

Blasing et al (2012) concluded that Simple skills are completely acquired by the neuromuscular system that chooses the most effective method to attain the goal in movements. That leads to increase usage of abilities as well as decreased use of energy.

As mentioned by Capio et al (2021), after a lot of research, mostly in associational studies, it reveals that the connection of movement expertise together with mental and social components of development is highly observed in the early stage of children. Those children who attain movement competently will have the better intellectual capacity and social behaviors.

D’isanto et al (2016) elaborated that motor learning refers to emerging most articulated motor programs that will result in a prescription of teaching motor activity through managing student exercises that alleviates motor program and reduces inconstancy of execution of movement.

* 1. **Motor Learning in Dance**

According to Krasnow and Wilmerding (2015), Motor learning in dance signifies dancers that learn both easy and difficult skills. These skills are not acquired from the motor development that happened for all children like grasping, skipping, and walking. Dance instructors aim to teach skills for them to execute movements with exactness, synchronization, articulateness, and smoothness, with memorization. Dancers’ goal is to attain a level of competency that develops the quality of movement.

Krasnow (2013) emphasizes that motor learning is the extent of education that criticizes how dancers acquire new movement but not only for one class or practice session. The term motor learning is used to describe changes acquired through practice and are lasting or recalled at some point.

Karin (2016) discussed that, in ballet, the method of conveying complex techniques to young dancers can appear in an innate manner that grows effective, expressive, and synchronous movements.

Coker (2017) claimed that practice is a crucial aspect of learning or re-learning a motor skill. To maximize one’s time, rehearsals should provide differences in regular and irregular conditions in any setting. It is desirable to practice variability to be determined and instructors should choose how the practice session is managed.

According to Gose (2018), dancers as part of their everyday training equally acquired motor learning as well. In dance, motor learning happens in areas like learning styles, practice schedules, feedback, directions, memory, and attention.

* 1. **Motor Learning in Sports**

Spittle (2021) stated that the acquisition of basic skills in sports allows players to take part in activities. Having a higher level of sports involvement, and proficient execution of movements are critical variable that affects competent performance. He also discussed that there are categories of skills based on the accuracy of movement (gross to fine), arrangement of skill (discrete, serial, and continuous,) and constancy of the environment (open to closed).

As mentioned by Masters et al (2014), the adequately complex motor task requires a connection of many degrees of freedom. As skills oblige to have a competent performance like most sports activities, learners should have a proactive role in the learning process that can be managed or supervised consciously.

As discussed by Agosti and Madonna (2020), a deep understanding of theoretical assumptions of motor learning is essential to address new scientific attainments. In teaching movements, to a child or an athlete, it is important to comprehend well the motor function as an arising factor of a complex system where movement occurs through motor experience, later became an actor, and proceeds to be a motor performance.

As mentioned by Di tore and Raiola (2017), the most used old teaching practices base on theories in cognitive approach and prescriptive teaching vision. The cognitive approach refers to one’s psychological model of motor learning such as open-loop and closed-loop motor control models as well as generalized motor program theory. Some scholars focus on sport’s teaching method from a different point of view namely the ecological approach. In this part, coaches focus on school environment settings and interpretation of learning as a study for physical and motor resolutions existing in the environment. This approach is based psychologically on the theory of Bernstein’s degree of freedom and motor imagery. As Psychology defines the mechanism of perception-action, the arrangement of stimulus identification to response selection to response programming replicates IPO (input, process, and output). While information processing relies on the wild guess that knowledge takes place externally. It doesn’t reflect in a person’s experiences and the molding process of perception, interaction, and life’s experiences. With this viewpoint, in teaching sports, ecological sports show more updated evidence and expansion of scientific research. However, the cognitive approach shows relativity in teaching approaches under teaching methods.

Kal et al (2018) stated that implied motor learning is known to be specifically efficient for acquiring sports-related motor skills. There will be an automatic movement that helwith ps multitasking and high-pressure environment movements.

* 1. **Physical Education in Blended Learning Modality**

Burgueño et al (2021) claimed that physical educators examined that blended learning implied over workload, exacerbated social relationships, worsen students’ motivation. Similarly, physical educators view physical activities performed in blended learning by students as lower than normal. Moreover, teachers stated that students with low economic status because they lack gadgets and resources.

As expressed by Derri et al (2012), the blended learning modality is a fusion of offline and online learning that comprises the suitability of online courses even without face-to-face benefits. As alternative teaching methods, blended instructions should be used by teachers to help students improve their school performance.

According to Chen and Li (2016), as network information technology continue to develop, the emphasis on teaching sports in Physical Education College and universities with computer association, blended learning will manifest. Blending learning comprises a new teaching model, old physical education teaching, blended learning applications, developing the efficacy of teaching computer lessons of physical education, Sports College, and network computer teaching. From there, students will be able to completely accomplish the task and will attain the target objectives and requirements of practice teaching.

Buschner and Daum (2014) explained that blended and online learning physical education is only applicable for high school students when they already executed motor and social skills to be competent online students. The main goal of physical education is to enhance motor skills and the problem related to evaluating motor skills through online, blended, and online learning physical education is not suitable for elementary students.

As mentioned by Ali et al (2022), one of the subjects that have significant problems is the Physical education subject. Those problems are produced by other matters. First, it is because of the content characteristics called movement activity. Prioritizing physical movement activities to attain learning objectives thru the help of the scientific approach steps and principles that are considered as factually cognitive activities is hard to show as subject content characteristics. Second, when the Physical educators failed to interpret, define, and disseminate the scientific approaches principles into the educational plan, it is because the scientific approach components in Physical education subject are divided from the entire learning material and it takes at least 10 to 15 minutes once it is applied into learning practice. With that, we can assume that the application was not accurate to the goal. Third, the time allotted for physical education subjects is not enough. Fourth, the facilities and infrastructure in many schools in Indonesia for Physical Education practice are very limited. Creating the subject application is controlled by many factors that are not connected to the subject content. Physical educators believed that one of the benefits of using digital technology and information technology management is to apply a scientific approach to organize course material content without limiting the learning period allotted for Physical Education subjects. The course content can be organized online or offline outside the course period thru digital devices. With the help of digital devices, educators can provide assignments, between physical activity homework and movement analysis or knowledge-based activity homework.

**Results**

In the interview with a respondent working in the Education field as a Physical Education teacher, she stated:

“Good points: creative and good color combination was used, easy to navigate, catchy header and important contents were provided. To improve: use some catchy font, as well as the size, needs to increase, emphasize the essential info, and watermarks on the contents like a hand-out, worksheet blocks some of the info. ”

In the interview with respondents working in the Dancing field as Choreographer, they mentioned:

“It is a nice program because it maximizes the use of social media which is the number one tool in learning during this pandemic. Through this program, you can easily educate people about the importance of Physical Education. Recommendations: 1. you should define first the meaning of dance before going to its benefits 2. You only focus on the definition of Folk dance, maybe you should include other genres because some people that may explore your website might not interested in folk dance only.”¹

“Being a physical education teacher that promotes physical activity and fitness acquisition through a comprehensive curriculum focused on lifetime involvement in sports and activities. I congratulate you and am happy to say a GOOD JOB! To all the people behind this website the “MotionLit”. Through the help of this website it can deliver an online dance program that is safe, effective, worthy of your time and money, and most importantly, mirrors the benefits of a real dance class. Recommendations: Always focus on your objectives. Targeting your objectives is the most important. And at the end of the class always remember to improve your dancer’s strength, flexibility, and techniques and most important their happiness.”²

In the interview with a respondent working in the Sports field as a Table Tennis Coach, he stated:

“Comments: For the good points it is creative knowledgeable and informative but be specific on your target objectives. Recommendations: If you want to discuss dance discuss only dance but if you want to discuss sports discuss only sports in that way you can give more examples and easily understand your topic that can easily understand.”

In the interview with respondents working in the Technology field as a Computer Engineer¹ and IT², they expressed:

“Overall the website is well designed and an educational site. The design of the Web site is appealing to the eye. The layout is good and easy to navigate. (Feedback & recommendation based on your field of expertise which is PE teaching: put more information and details for every topic, I prefer a carousel-style of pictures or images about dance and sports.”¹

“The design is user friendly, regarding the Motor Learning in Physical Education below (dance and sports) it looks like a button, and I recommend that the pictures there should be a slideshow for different dance and sports.”²

In the interview with a respondent studying at the Rizal Technological University as BPED¹ and BSBA-HRDM² students, they affirmed:

“The website was actually good in my own experience, I was able to access it easily considering the photos and videos. I was amazed by the details and the objectives like the fact that it doesn't limit just the website itself but it's even extended to other apps to access the files like Google drive, it was informative and understandable. Maybe the only problem that I noticed was the alignment of text on the website reason for its feature to become look spacious. Overall, it was greatly beneficial for different audiences. I would definitely recommend this to anyone who'll need such information.”¹

“As a student, MotionLit is a great tool that contains all of the necessary and essential information that students are looking for. This website is interesting and highly informative. Discussions are thoroughly explained so that students can easily understand. What I like the most about this MotionLit website is that they included "Download file here," which allows everyone to download for free the lecture handouts, quizzes, and answer key, making it easier, more convenient, and useful for everyone to assess their knowledge or what they have learned from both dance and sports classes. In terms of the design and color combinations, it is nice and pleasing. However, my only recommendation is that they change or avoid excessive editing of the attached images. To conclude, the MotionLit website performed its functions efficiently and effectively enough that I would highly recommend it to anyone. Thank you so much!”²

Discussion

What does this mean?

(This part summarizes your primary results, provides commentary on them, and connects them to other studies. Additionally, you highlight the limits of your study and utilize them to justify the need for additional, future research.) **\*\*\*Please delete this guide when you are creating your paper.**

**You can create a minimum of 2-3 pages for this section**

As a whole, the finding implied that most of the respondents appreciated the website design in terms of its creativeness specifically the color combinations, catchy header, layouts of photos and videos, the navigation by which it is easy for them to explore all details, and features by which they could download files and other applications and social media platforms are also embedded like Gmail, Facebook, YouTube and Google drive. Some respondents’ based on website design suggested increasing the font size, decreasing spaces, removing the watermarks in the handouts, answer sheet, and answer key, adding slideshows regarding different dances and sports, and lessening excessive edits in the attached images. The majority of the respondents valued the MotionLit website as knowledgeable, informative, and understandable but some respondents recommended adding other genres of dance aside from folk dance, focusing on the target objective, and choosing one among dance and sports to provide more examples and a deeper understanding of the topic.

This concludes that respondents were visually attracted to the materials that are appealing to their eyes. Respondents were fussy and observant readers at the same time because they focused even on the small details. Additionally, respondents preferred functional features on the website to keep it more effective and worthy of time use. The respondents were also knowledgeable enough about the topic that allow them to critically analyze its content and significance in learning. Finally, the MotionLit website met its objective of allowing students to experience the virtual classroom setup because they were able to explore and enroll in their preferred virtual classes. MotionLit provided well a comprehensive discussion and knowledgeable content about motor learning in physical education through dance and sports however, it needs to cover the other genres in dance too, so that dancers who love other genres aside from folk dance will also be engaged and interested. It also needs to include more demonstrations to incline the student’s psychomotor learning. Also, MotionLit successfully included multiple applications and social media platforms to maximize the use of a blended learning modality because all features were easy to navigate and accessible for users.

According to Chen and Li (2016), as network information technology continue to develop, the emphasis on teaching sports in physical education college and universities with computer association, and blended learning will manifest. From there, students will be able to completely accomplish the task and will attain the target objectives and requirements of practice teaching.

As expressed by Derri et al (2012), the blended learning modality is a fusion of offline and online learning that comprises the suitability of online courses even without face-to-face benefits. As alternative teaching methods, blended instructions should be used by teachers to help students improve their school performance.

References

Agosti, V., & Madonna, G. (2020, December 21). From Movement to Action: New Perspectives in Motor Learning and Sport Training. Aisberg.unibg.it. https://aisberg.unibg.it/handle/10446/170731

Apriyanto, R., & S, A. (2021). Effectiveness of Online Learning and Physical Activities Study In Physical Education During Pandemic Covid 19. Kinestetik : Jurnal Ilmiah Pendidikan Jasmani, 5(1), 64–70. https://doi.org/10.33369/jk.v5i1.14264

Bläsing, B., Calvo-Merino, B., Cross, E. S., Jola, C., Honisch, J., & Stevens, C. J. (2012). Neurocognitive control in dance perception and performance. Acta Psychologica, 139(2), 300–308. <https://doi.org/10.1016/j.actpsy.2011.12.005>

Capio, C. M., Lee, K., Jones, R. A., & Masters, R. S. W. (2021). Examining the Antecedent Role of Movement Proficiency in Child Development: Study Protocol. Frontiers in Psychology, 12. https://doi.org/10.3389/fpsyg.2021.678874

Chen, Q., & Li, Q. (2016). The Blended Learning of Physical Education and Computer Class in Physical Colleges. https://www.atlantis-press.com/article/25853595.pdf

Clealand-Donelly, F., Mueller, S. S., & Gallahue, D. (2016). Developmental physical education for all children (5th ed.). London: Routledge. Motor Learning and Skill Acquisition. (2016). Google Books.

Coker, C. A. (2017, September 22). Introduction to Motor Learning and Control | Cheryl A. Coker | Taylor. Taylor & Francis. https://www.taylorfrancis.com/chapters/mono/10.4324/9781315185613-1/introduction-motor-learning-control-cheryl-coker?context=ubx&refId=0080bd23-25f2-496b-9970-c53f58112d91

Daum, D. N., & Buschner, C. (2014). Handbook of Research on K-12 Online and Blended Learning [E-book]. In Research on teaching blended and online physical education (pp. 201–223). https://dl.acm.org/doi/pdf/10.5555/2811036.2811048

Di Tore, P.A., and Raiola, G. (2017). Motor Learning in Sports Science: Different Theoretical Frameworks for Different Teaching Methods. Sport Science 10. https://www.sposci.com/PDFS/BR10S1/SVEE/04%20CL%2007%20GR.pdf

Di Tore, P. A., Schiavo, R., & D’isanto, T. (2016). Physical education, motor control, and motor learning: theoretical paradigms and teaching practices from kindergarten to high school. Journal of Physical Education and Sport. <https://www.semanticscholar.org/paper/Physical-Education%2C-Motor-Control-and-Motor-and-to-Tore-Schiavo/1f625814b46dfc431467a1a11f617229aa2fd815>

Extraordinary Dancing Requires Extraordinary (Motor) Learning. (2018, November 14). Taylor & Francis. https://www.tandfonline.com/doi/abs/10.1080/15290824.2017.1383611?journalCode=ujod20

Filiz, B., & Konukman, F. (2020, December 7). Teaching Strategies for Physical Education during the COVID-19 Pandemic. Taylor & Francis. https://www.tandfonline.com/doi/full/10.1080/07303084.2020.1816099

Kal, E., Prosée, R., Winters, M., & van der Kamp, J. (2018). Does implicit motor learning lead to greater automatization of motor skills compared to explicit motor learning? A systematic review. PLOS ONE, 13(9), e0203591. https://doi.org/10.1371/journal.pone.0203591

Karin, J. (2016). Recontextualizing Dance Skills: Overcoming Impediments to Motor Learning and Expressivity in Ballet Dancers. Frontiers. https://www.frontiersin.org/articles/10.3389/fpsyg.2016.00431/full

Krasnow, D. (2013, January 10). Motor Learning In Dance. 4Dancers.Org. https://4dancers.org/2013/01/motor-learning-in-dance/

Krasnow, D. H., & Wilmerding, D. V. (2015, February). Motor Learning and Control for Dance. Google Books. https://books.google.com.ph/books?hl=en&lr=&id=RvF6DwAAQBAJ&oi=fnd&pg=PR1&dq=motor+learning+in+dance&ots=uD8QuuTX8N&sig=CyZuuVdzgJpuVIuBQFQIkvfAL8A&redir\_esc=y#v=onepage&q=motor%20learning%20in%20dance&f=false

López-Fernández, I., Burgueño, R., & Gil-Espinosa, F. J. (2021). High School Physical Education Teachers’ Perceptions of Blended Learning One Year after the Onset of the COVID-19 Pandemic. International Journal of Environmental Research and Public Health, 18(21), 11146. https://doi.org/10.3390/ijerph182111146

Mujiono, M., & Gazali, N. (2021). Literature review: Physical education in the covid-19 pandemic | JUARA : Jurnal Olahraga. JUARA: Jurnal Olahraga. http://jurnal.upmk.ac.id/index.php/juara/article/view/1054

Rahayu, T., Ali, M. A., Anggita, G. M., & Castyana, B. (2022). BLENDED LEARNING for Physical Education [E-book]. Faculty of Sport Science. https://www.icsspe.org/system/files/20220121%20ebook%20Blended%20Learning%20for%20Physical%20Education\_January%2010th%2C%202022.pdf

Spittle, M. (2021). Motor Learning and Skill Acquisition: Applications for Physical Education and Sport (2nd ed.). Bloomsbury Academic. https://books.google.com.ph/books?hl=en&lr=&id=zhlHEAAAQBAJ&oi=fnd&pg=PR5&dq=Motor+Learning+in+Physical+Education+&ots=jc9CxZ5RdT&sig=FhltsPUEBKRf7yLKh2oNcrpa0aE&redir\_esc=y#v=onepage&q=Motor%20Learning%20in%20Physical%20Education&f=false

Vernadakis, N., Giannousi, M., Derri, V., Michalopoulos, M., & Kioumourtzoglou, E. (2012, January 1). The impact of blended and traditional instruction in studentsâ™ performance. ScienceDirect. https://www.sciencedirect.com/science/article/pii/S2212017312000990

Zhu, F., Poolton, J., & Masters, R. (2014). Neuroscientific aspects of implicit motor learning in sport. In A. Gollhofer, W. Taube, & J. B. Nielsen (Eds.), Routledge handbook of motor control and motor learning (pp. 155–174). Routledge/Taylor & Francis Group.