Comparative Analysis Between the Integration of Technology & Physical Engagement of Students on Tinikling Dance

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Abstract

The purpose of this study is to evaluate the effectiveness of the Tinikling, a traditional dance from the Philippines, that the respondents from Grade 10 Froilan pupils engaged in, which they will find out which is more effective in transmitting knowledge. The researchers used a qualitative descriptive method to analyze the data. The researcher used a survey interview to gather students' responses in analyzing the study's outcome and through an observational survey in which the researchers observed the students' level of performance. The researchers showed a video clip on how to perform some of the basic steps in Tinikling twice using a TV screen and a speaker, and then they were told to perform the steps taught in the video. In the second part of the implementation, the researchers taught the students how to perform some of the basic steps of the Tinikling dance using a part-whole method with guided practice. The researchers observed that students learn more in guided practice and create good communication with the behavioral attitude of the students. The result of the implementation is that the actual demonstration of teachers with guided practice has a more significant effect on students' learning development than using technology in the classroom in teaching dances. For further studies, the researchers recommend that further study using a quantitative method should be utilized to support our study.

Keywords: Technology, Engagement, Physical Activities, Dancing, Effectivity.

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1.0 Introduction:

This study focuses on which aspect students can learn better. Technology affects every student's social life in learning. Many Filipino youths are currently engaged in social media, posting a wide variety of content, updating statuses, and uploading and sharing photos and videos (Duque, et al. 2017). Technology can be more beneficial for certain types of students. According to Bidiss (2010), physical inactivity is a well-established risk factor for many chronic conditions, such as diabetes, cardiovascular disease, and cancer. This research aims to determine the effective learning style between technology integration and physical activities in physical education classes, especially in dance.

Technology is a meaningful way to facilitate cognitive processing and engage students in critical, higher-order thinking about the content to support interactive, collaborative, and student-centered classrooms (Jonassen et al., 1998). Technology can create a collaborative process in engaging in physical activities wherein students can use it as an alternative to communicate with their classmates, such as playing games with them. Technology or technology-based assessment can improve the students' performance of physical activities (Judit Bort-Roig et al., 2014). Using technology can improve the abilities and potential of students by measuring their performance. The use of technology is an effective educational tool that can enhance young people's physical fitness, motor skills, and motivation for physical exercise (Marina Papastergiou, 2009). These studies relate that technology is an effective tool in educational learning and motivates students. Technology supports individuals according to their everyday needs (Don Passey, 2013). It defines that technology can be considered a productivity tool supporting individuals. Using technology can affect in assessing the effectiveness of video technology in enhancing students' engagement in Physical Education lessons aimed at facilitating deeper understanding (Dr. Ashley Casey et al., 2012). It engages students and enables them to have a virtual understanding of video using technology. Technology may be beneficial in our daily lives, but it is more important to develop a person's skill wherein, he/she should engage in physical activities (Rachel Kowert, 2013). It is suggested that it has the potential to make distinctive contributions to the development of children's fundamental movement skills and physical skills, which are necessary precursors for participation in later lifestyles and sporting physical activities. They can also support the development of social skills and social behaviors, self-esteem and post-school attitudes, and, under certain circumstances, academic and cognitive development. It emphasizes that many of these benefits will not necessarily result from participation (Richard Bailey, Ph.D. et al., 2006). Physical inactivity is a well-established risk factor for many chronic conditions, such as diabetes, cardiovascular disease, and cancer, and is estimated to cause 1.9 million premature deaths globally per year. (Elaine Bidiss, Ph.D. et al. 2010) A person's active lifestyle can maintain a healthy life and a manageable weight to avoid diseases that could result in death. Physical education classes that appeal to boys and girls and emphasize learning and improvement foster positive attitudes and intrinsic motivation (Bryan, Charity Leigh, et al., 2012). Hence, an exceptionally engaged student is one who, for example, commits considerable energy to study, spends much time on campus, joins actively in student organizations, and often interacts with faculty members and other students (Alexander W. Astin et al., 1999). Part of engaging in physical activities can maintain a healthy relationship with the people around you. One can gain social skills by participating in group activities where he/she can establish highly potential communication skills with the students and the community they are in. The physical engagement of the students was to test a structural model of hypothesized relations between the perceived need for support from physical education teachers (autonomy support, competence support, and support for relationships), psychological need satisfaction (autonomy, competence, and connectivity), intrinsic motivation and physical activity (Tao Zhang et al., 2011). Involving in physical activities, wildly dancing, can boost the student's morale in achieving social competence and self-competence wherein one can relatively understand each other and copes with the social extinction of the students. Student involvement suggests that the efficacy of school-based physical activity interventions, within and outside of school, is linked to the degree of support for students' self-determined motivation (Anne E.CoxPh.D. et al., 2008).

However, these studies need to provide a clear picture of the student's preference for the effectiveness of technology integration, the actual involvement of students, the development of physical skills, positive technological results, self-improvement, and motivated personality among high school students.

Therefore, this study aims to (1) compare which is more effective between the use of technology and the physical involvement of students in physical education, especially in Tinikling dance. (2) identify the good sides of technology integration and the physical involvement of students in folk dancing. (3) lastly, find the most effective way to acquire the knowledge gained in dancing the Tinikling.

2.0 Theoretical Background

This study is anchored on the theories of Social Learning Theory by Albert Bandura and Activity Theory by Lev Vygotsky.

Bandura's Social Learning Theory suggests that people learn from each other through observation, imitation, and modeling. The theory has often been called a bridge between behavioral and cognitive learning theories because it includes attention, memory, and motivation. People learn by observing the behavior, attitudes, and outcomes of others. "Most of the behavior is learned observationally through modeling: by observing other people, one forms an idea of how new behaviors are performed. Afterward, it was proven to be a piece of coded information that serves as a guide for action." (Bandura, 1977). Social learning theory explains human behavior in terms of continuous interactions between psychological features, activity, and environmental influences.

Today, most students are more technological, forgetting the essence of socializing and finding new friends. Students tend to forget the importance of having a healthy relationship with the people around them and the lack of a healthy body that can sometimes lead to diseases/disorders, such as obesity.

Activity theory describes the mechanisms underlying the origin of the mental process. It states that mental processes are derived from external actions through internalization. Piaget also introduced the concept of internalization, but the meaning of this concept within activity theory is somewhat different. With this, the Social Learning Theory helps the Activity Theory.
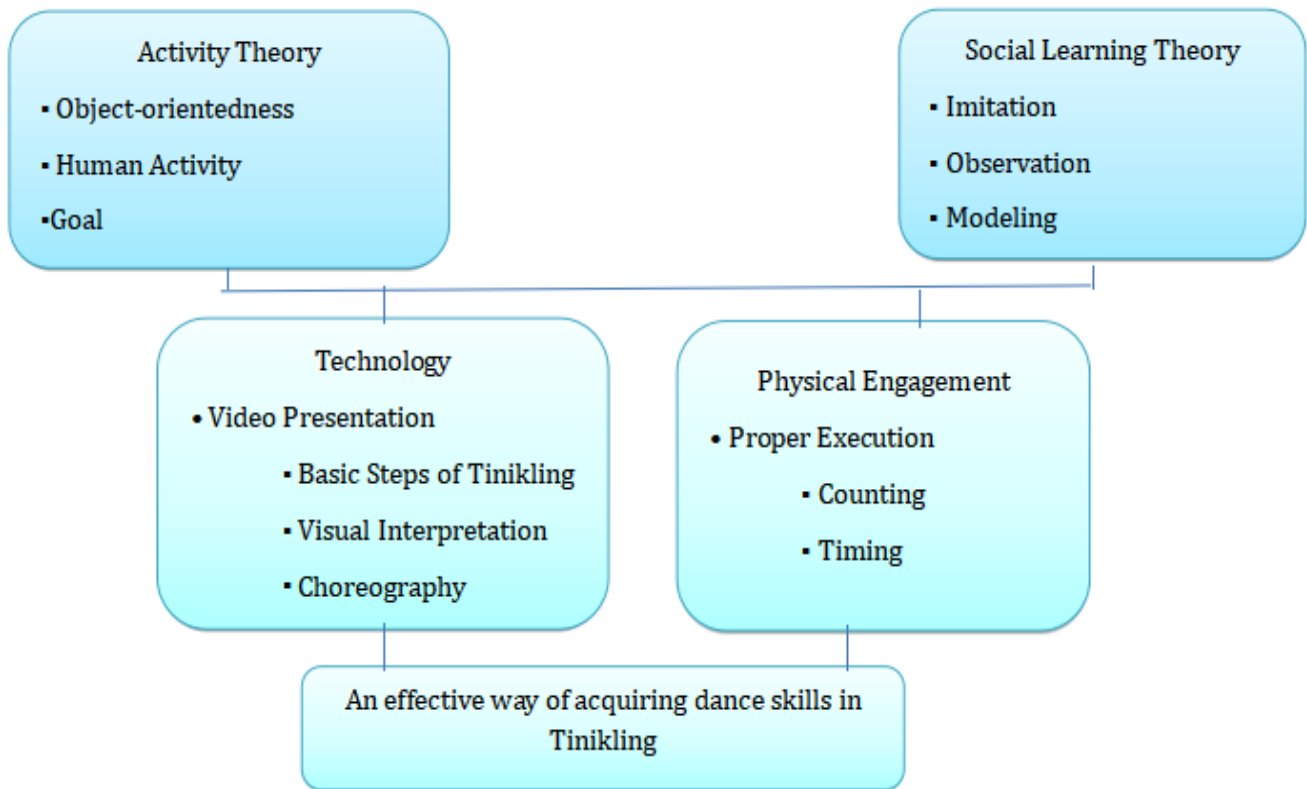
Figure 1.0 Conceptual Framework

3.0 Research Design and Method

This study used a qualitative method, specifically an observational design and interview mode. The researchers used a qualitative method to observe the respondents ' level of performance. Researchers will observe/interview respondents between the use of technology or actual physical engagement by using a rubric to analyze respondents' performance and feedback from respondents.

The researchers choose Luray II National High School in Toledo City. Where 40 grade 10- Froilan students respond to the study because most of the teachers in the school use television as part of medium-sized teaching to acquire knowledge, and the students are now more technological, as we are already in generation Z, where technology is widely used by millennia. The respondents were selected as a whole to represent all grade 10 students at Luray II National High School.

As part of our study, researchers use a rubric to evaluate students' performance in both technologies and without technology. The rubric consists of the performance skills that evaluate the dancers' energy and overall performance. Timing and coordination evaluate how respondents completely understand tempo and beat and stay in rhythm throughout the dance and get inside and outside the bamboo poles. Mastery evaluates how many of the steps were mastered by the respondents. Finally, Dance execution evaluates the body's grace,/ and proper posture.

The researchers observed the respondents' performance level by watching a video of the basic steps of the Tinikling dance wherein the respondents were asked to comply, observe and watch the video about the basic steps in the Tinikling dance presented. The video presented lasts 4 - 5 minutes and is played three times. After the video presentation, the respondents were told to take the steps taught in the video for about 15 minutes, including their practice time, where they were given time to practice the steps. The

researchers asked the respondents to comment on their performance. Some respondents said, "It is not easy to copy or follow a dance step by just watching it, it seems easy, but when you do the steps, it is difficult." Some respondents have been able to follow the steps,/ but they need to improve. The evaluation of the observer in terms of performance skills is that they are rarely focused, concentrated, or committed to the performance of their movements, as some of them needed help to catch up on the steps presented in the video. In terms of rhythm/tempo, most of the beat, tempo, and rhythm of the execution of the respondents attempt to keep up in rhythm but get out of touch and speed up or fall behind often. Most respondents do not follow the beat in the music.

Regarding the mastery of dance, some respondents have forgotten to master some of the steps and have no synchronization with their partners. Finally, the dance execution of the respondents needs to flow smoothly between their steps and in repeating the dance. In general, the researchers observed that teaching video presentation is not commendable because it takes more time to practice it, and some students need to catch up with the steps presented.

Afterward, the researchers conducted a thorough teaching demonstration on how to execute or perform the basic steps of the Tinikling dance with the actual engagement of the respondents using a whole-part-whole method. The respondents were told to take the steps taught by the researchers in an actual demonstration. The demonstration took almost 25 - 30 minutes to teach the basic steps of the Tinikling Dance. After the video presentation, the respondents were told to take the steps that the researchers taught in an actual presentation for about 15 minutes, including their practice time, where they were given time to practice the steps.

The researchers asked the respondents to comment on their performance. Most respondents said, "Now that it is already taught in a real-life situation, it is much easier now that you guide us on how to execute it step by step." However, some respondents were

able to follow the steps, but they needed to be better. The evaluation of the observer to the respondents in terms of performance skills is that the respondents are now focused, concentrated, and committed to their performance movements. In terms of rhythm/tempo, the respondents completely understood the tempo and beat of the music and stayed in rhythm throughout the dance. They are now aware of the correct timing to get into the bamboo according to the beat of the music.

Regarding the mastery of dance, the researchers observed that the respondents are now mastering the steps with their partner synchronization. Finally, the dance execution of respondents is now aware of how to dance smoothly with the correct body posture and grace. In general, the researchers observed that it is vital that teachers always use an actual demonstration, as most respondents are good at catching up with an actual demonstration by the teachers.

The researchers conducted a thorough group discussion wherein a research-interview question was utilized. (1) Are you into dancing? (2) Do you like dancing the Tinikling? (3) Lastly, in learning Tinikling dance, which do you prefer, watching a video or actual demonstration?

4.0 Results and Discussion

The researchers observed the level of performance of the respondents after the video presentation of the Folk Dance Tinikling and the actual teaching demonstration of the researcher.

Summary

	With Technology Integration	Actual Demonstration (Actual Engagement of Students)
Timing & Coordination	The dancers attempt to keep on rhythm but gets off beat and speeds up or falls behind often. The dancers and the clappers aren't able to follow the beat of the music.	The dancers show a complete understanding of the tempo and beat, and stays on rhythm throughout the dance. The dancers are now aware of where to get inside the bamboo without getting hit in accordance with the music, beat and its tempo.

Analysis: *It has been noticed by the researchers that the timing and coordination of the respondents with the use of video in acquiring the lesson was very low. The respondents tend to be off-beat during the practice with the music. There needs to be coordination with the partner regarding when to get inside the bamboo poles and when to get out. While in an actual demonstration, the respondents were now aware of the timing of the music and the clappers. The respondents already coordinated with their partners when to get inside and outside the bamboo poles without getting hit and following the music. Therefore, an actual engagement of the students should be used in teaching dance to the awareness of proper timing and coordination.*

	With Technology Integration	Actual Demonstration (Actual Engagement of Students)
Dance Execution	The dancers dance with no grace and proper posture of the body. The arms and feet movements were not properly executed.	The dancers dance with grace and proper posture of the body. The arms and feet movements properly executed.

Analysis: *It has been noticed by the researchers that by watching a video, most of the respondents need more grace and proper posture in executing than should be seen in executing the dance. While in the actual engagement of the respondents, with the help of an actual demonstration and proper guidance, the respondents were able to execute the dance with the same grace and proper body posture that should be seen in executing the dance steps. The arms and feet movement has improved. Therefore, the actual engagement of the students helps them learn more about acquiring the dance steps.*

	With Technology Integration	Actual Demonstration (Actual Engagement of Students)
Mastery	The dancers mastered 2 out of 5 steps introduced in the dance basics of Tinikling. The dancers lack synchronization of movements with their partner.	The dancers mastered 4 out of 5 steps from the dance basics of Tinikling that shows synchronization of movements.

Analysis: *The researchers noticed that the students lacked mastery of the dance steps by just watching the steps through a video. While in an actual demonstration of the teachers with an actual engagement of the respondents, they were able to execute at least four steps of the dance basics in Tinikling, wherein the respondents showed a mastery of the dance. Therefore, an actual demonstration by the teachers, with their proper guidance, helps the students in mastering the different dance steps in the Tinikling dance.*

	With Technology Integration	Actual Demonstration (Actual Engagement of Students)
Performance Skills	The dancers execute the dance steps with less energy that shows low performance.	The dancers execute the dance steps with full energy that shows impressive performance.

Analysis: *It has been noticed by the researchers that in watching a video, the respondents show no interest in dancing the Tinikling dance. They dance with less energy than is needed to execute the dance steps. While in the actual demonstration, the respondents*

showed interest in dancing the Tinikling dance, wherein they performed with confidence and the energy needed to dance. Therefore, the actual demonstration of the teachers should be used in teaching the dance.

4.1 Interview Responses

Personal

• Traumatic Experience

• Lack of self-confidence

• Lack of knowledge on how to perform the dance.

"I don't usually like dancing kay nakasuway nako sauna nga naipit sa kawayan akong tiil."

"Ako ma'am kay wa jud ko kasuway ug try anang musayaw jud, kay clappers raman jud ko sauna."

"In my case ma'am, I don't dance any cultural dances, I don't have the confidence to dance any cultural dances."

The respondents' responses are classified into three groups to be more precise and understandable. Personal, social and learning preferences. Personal refers to the respondent's personal reasons why they like dancing the Tinikling dance.

Social

• Fear of getting bullied/judged.

• Peer pressure

• Gender Inequality

"Ako ma'am mahadlok ko musayaw kay sungogon man ko nga tomboy, unya gahi musayaw compare sa ubang babaye."

"As for me ma'am, I'm afraid to dance tinikling kay mas maayo man musayaw ang uban ma'am. Kataw-an nya ko kay dili ko parehas nila nga bansay musayaw."

"Dancing Tinikling requires great effort ma'am, ako ma'am I am not really into dancing, lamya kayo ko musayaw. Bisan unsaon jud nako ma'am kay lamya jud ma'am. Unya akong mga classmates sungogan man kayo na sila ma'am. Ilaha unya kong sungogon the way I dance. Mao nang basta naa gani cultural dances ipa-perform, props rajud ko ma'am."

Learning Preferences

• Actual engagement/interaction of the students

• Actual demonstration of the teachers

• Watching video

"Mas ganahan ko nga tudluan mi mismo sa maestro/maestra kung unsaon jud pagsayaw ang Tinikling, kay para kahibalo jud mi sa steps niya. Compare sa video lang."

"Ma'am, mas ganahan ko ug kami pasayawon with the help sa teacher kay mas makasabot mi ug para sad maka-jam namo amoang uban nga classmates."

"Ako ma'am, mas ganahan ko ug video kay kasagaran dili ko kasabot sa e demonstrate sa teacher kay naa man ko sa luyo naglingkod. Dili ko kakita. Mao nang mag search nalang ko sa video kay mas daghan pa ko ug mahibaw-an ug ma-add sa sayaw. Limited raman gud kasagaran ang matudlo sa amoang teacher kay samot na nag-apas siya sa time."

5.0 Recommendation/Conclusion

Technology integration of learning Tinikling dance has an impact on respondents' acquisition of skills. Despite the advent of technology, they prefer actual demonstration from the teachers, in other words, teachers are still very significant in the teaching-learning process in terms with dancing. They still appreciate the significant presence of the teacher demonstrating dance steps and that the teacher cannot be replaced by technology. For further studies, the researchers recommend that further study using a quantitative method should be utilized to support our study.

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