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Development and Validation of Video Based - Lesson in Physical Education

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Abstract: *This study aimed to develop the validate the video lesson for Grade 7 in Physical Education in Sorsogon National High School, for the school year, 2021-2022. It used the descriptive developmental method.*

This study is descriptive since it described the following: (a) experts' validity of the video lesson using DepEd LRMDS along content quality, and accuracy, (b) level of academic performance of the students based on the pre- test and post- test result, and (c) significant difference between the pre- test and posttest scores.

Among the many grade 7 students enrolled in Sorsogon National High School (SNHS) for school year 2021-2022, only 60 students were chosen as subjects. They were divided into two groups, 30 students for the Control group and 30 students for the experimental. Sampling was done through the random lottery technique. The purposive sampling method was used to determine the four Physical Education experts who validated the developed video lessons in the study.

Video lessons were developed, and Experts Validation Sheet (EVS) was used to validate the video. Data from these instruments were amassed using frequency count, weighted mean with their corresponding interpretation.

The pretest and posttest were used to measure the students' performance. Data were analyzed using t-test for correlated samples.

The findings were: Video lesson is the instructional material developed in this study. The video lessons consist of four basic parts: title, recall, lesson and summary. The validity of the video lesson was evaluated by the four experts using EVS adopted from DepEd LRMDS. It is composed of four factor.

Keywords *– Video base-lesson, Validation, Physical Education, effectiveness and Development.*

1. INTRODUCTION:

This pandemic has presented many difficult challenges, particularly for those who teach physical education. Physical education provides learning experiences that improve mental alertness, academic performance, readiness and enthusiasm for learning in our nation's youth**.** As educators, we must make decisions to how to be able to asses our health status and to make efforts for the students to be physically and mentally fit to meet challenges in everyday life. The goal of this study was to develop and assess video-based physical education demonstration lessons for students in grade 7 at Sorsogon National High School for the academic year 2021–2022. It specifically seeks to respond to the following queries:

What physical education lesson plans using video-based demonstrations could include: Basic arm and feet positions, Skills or techniques in Festival dance in the Philippines , Different exercises skills, and Physical fitness components. What is the efficacy of the created video-based demonstration lessons made using (DepEd LRMDS) or the Department of Education Learning Resources Management and Development System in terms of: content, instructional, technical, and accuracy quality? How well-developed, video-based demonstration lessons are at raising students' performance. This study aimed to develop the validate the video lesson for grade 7 in physical education in Sorsogon National High School, for the school year, 2021-2022. methods: It used the descriptive developmental method.

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2. LITERATURE REVIEW:

The majority of people firmly believe that taking part in sporting activities can enhance their physical health and make them more enjoyable. On the other hand, people are more expected to adapt to their quickly changing surroundings and choose for themselves what changes they need to make in order to meet the difficulties of modern living. Physical education can only offer these advantages if it is well-planned and well-improved. As educators, we must decide how to be able to assess our health state and to make efforts for the students to be physically and intellectually fit to tackle obstacles in everyday life. Those who teach physical education have faced several challenging obstacles as a result of this pandemic. Physical education offers learning opportunities that enhance cognitive function and academic success. It also help develops positive attitudes on physical activity so that students can adopt healthy and physically active lifestyle. This shift in teaching paradigm of learning due to the on-going pandemic has posed many challenges to the education sector. Any decisions that may be made by educational institution must at all times consider the protection of students, faculty members academic staff, communities, societies, and the nation as a whole. Thus, various learning modalities were explored. Most institutions have explored many learning modalities considering the capacity of their students or the availability of the facilities needed for learning to address the needs of students. These institutions have taken proactive measures to ensure that education would continue even after they close. Similarly, teachers are encouraged to develop instructional materials to meet the demands of time. k to 12 framework of the basic education curriculum aims to develop and improve physical education subject as well as the physical education teachers. Teachers have a fantastic opportunity to improve students' 21st century skills by using technology into the teaching and learning process in this technologically advanced environment. Numerous institutions domestically and overseas struggled to afford software, computer programs, and other technology-related accessories in order to keep up with changing educational trends.

The DepEd order no.012,s.2020,entitled “adoption of the basic education learning continuity plan for school year 2020-2021 in the light of the covid-19 public health emergency” in order to provide clear guidance to all offices ,units, schools and community learning center of the department pf education, learners and their parents, partners and stakeholders, the department developed a basic education continuity plan, a package of education intervention that will respond to the basic education challenges brought about by covid-19. DepEd engaged internal and external stakeholder for inputs in the design of a learning delivery strategy and operational direction that ensures the health, safety and wellbeing of all learners, teachers, and personnel of the department.

The DepEd face a challenging situation, specially in the school year 2020 until the present times due to the emerging situations brought about by the pandemic. the deped do a way of innovation, apply the blended learning modalities in response to this emergency. The DepEd developed a basic education learning continuity plan to ensure that the learning opportunities will be provided and delivered to the learners through the different delivery or modalities. This kind of scenario has awaken the mind of our leaders to think of a certain solution to motivate and get the interest of the students in order to gain functional knowledge in relation to physical education. In this way the lesson may provide interactive and immediate feedbacks to the learners. promoting the subject amidst pandemic.

According to Cajilig (2009),in the Philippine educational setting, the DepEd encourages the introduction of information and communication Technology (ICT) in the elementary and secondary schools. This is mainly rooted from the idea that technology must be studied first as a separate subject, then applied in other learning areas as a tool for learning how to learn.

Meanwhile, Yildirim (2007) explains that it is essential to establish an appropriate learning context for the students in the process of utilizing technology as a cognitive tool.

Bayoca (2015). Despite the threats of the COVID-19 pandemic, teachers continue to serve by formulating solutions for the learning guide of students.

The mentioned literatures provides the effective way of teaching Physical Education with the help of Information and communication technology (ICT) and these included gadgets like cellphones and cameras as basic elements in teaching -learning process.

This study utilized various instruments or materials to develop and validate the video lessons in physical education grade 7 students. In depth discussions of each instrument are as follows:

Pre-test and Post-test. This is a 50-item teacher-made test designed to measure the performance of the students. This test covered the identified topics in P.E or physical education for grade 7 students such as:

a. Fundamental positions of arms and feet in folk dance
b. Basic Skills in festival dance
c. Types of exercise skills
d. Components of physical fitness

The researcher requested permission from the school head to conduct a dry run. The letter of request to conduct a dry-run was given to the school head. A dry run of pre-test was conducted on February 20, 2022 to 30 grade 8 students who are not respondents of the study at Sorsogon National High School. The dry run lasted for one hour only. after the dry run, the researcher conducted an item analysis to find out the number of items that need to be discarded and revised. after item analysis, out of 60-item test on physical education, 10 items were removed from the test question resulting the final 50-item test.

The final 50-item test was administered again on march 22, 2022 to 60 students at Sorsogon National High School to determine the reliability of the test using the Kuder-Richardson formula 20 (kr20). the computed reliability coefficient value was 0.733. This meant that the test questions were acceptable and the test is highly reliable.

Video lessons instrument. These video lessons were teacher-made and anchored in most essential learning competencies. Topics, fundamental positions of arms and feet in folk dance, basic skills in festival dance were presented through multimedia as videos. types of exercise skills, and components of physical fitness it is composed of one video each lesson.

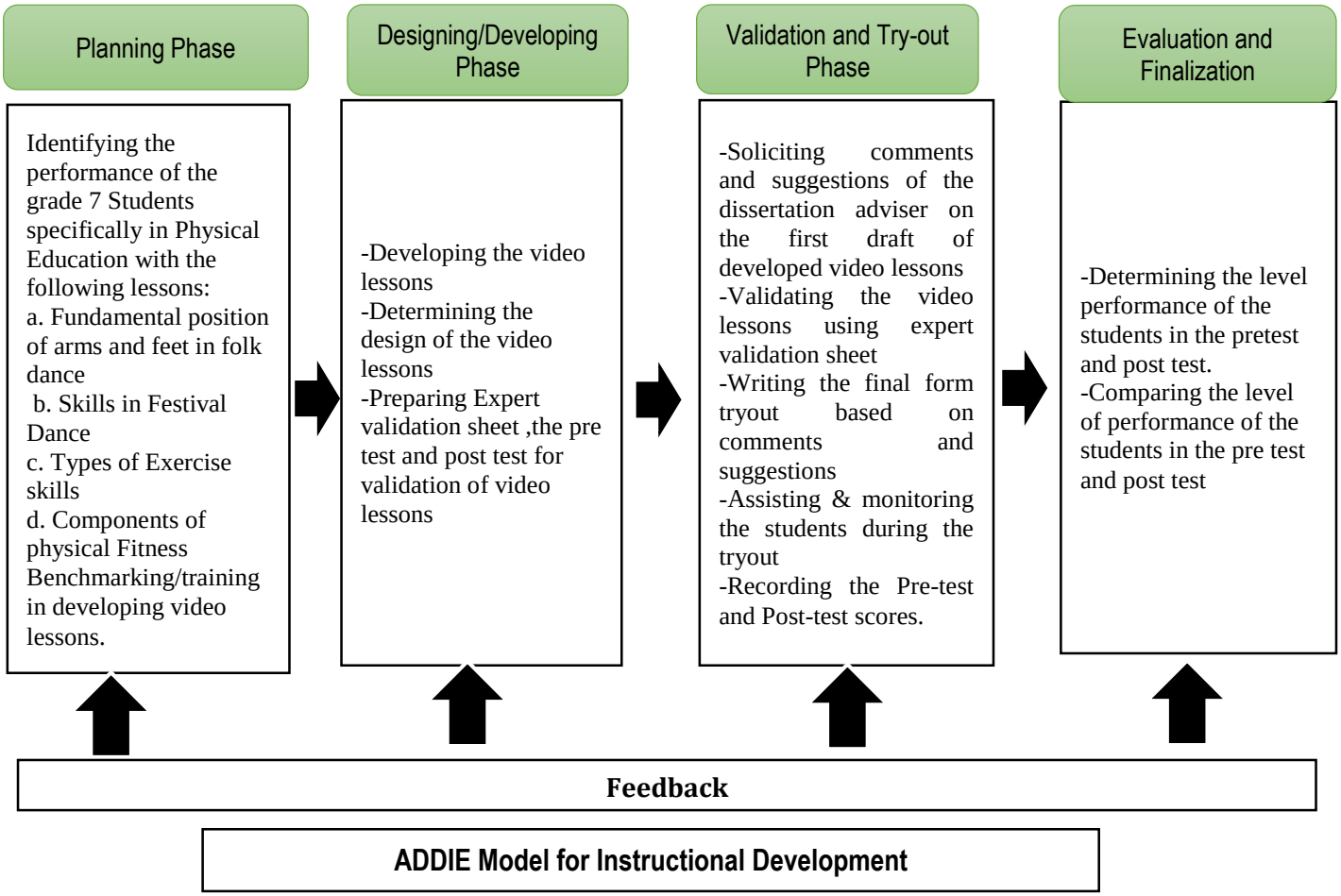
Video lesson no.1 fundamental position of arms and feet in folk dances, with a duration of eight minutes and 23 seconds. Video lesson no.2,skills in festival dance with the entire duration of 30 minutes and 24 seconds. On the other hand, video lesson no.3 entitled exercise skills with a duration of 30 minutes and 12 seconds. Video lesson no. 4 is also entitled components of physical fitness with a duration of 30 minutes and 20 seconds.

Experts validation sheet for video lesson. To support the adequacy of the video lessons to its intended users, experts' judgement was sought by the researcher through expert's validation sheet along adopted from DepEd LRMDS guidelines and processes for LRMDS assessment & evaluation. It is divided into four parts: (1) content quality; (2) instructional quality; (3) technical quality ;and (4) accuracy. Comments and suggestions were provided in the validation sheet.

3. METHOD:

The researcher adopted the Addie model (analysis, design, development, implement, evaluate) in developing and validating the video lesson used in the study conducted by (Torrefranca e., 2017), as shown in conceptual paradigm.

Conceptual Paradigm



3.1 THE SAMPLE

The main source of data for this research would be the grade 7 students of (SNHS) Sorsogon National High School Sorsogon City who are officially enrolled in this school, during the school year 2021-2022 under k-12 curriculum. Head teacher, master teacher and teachers teaching physical education 7 for ten years and above.

Table 1
respondents

respondents	frequency	percentage
students	60	86%
experts	4	14%
total	**64**	**100%**

As shown in table 1, the number of students who participated in the experiment are composed of 60 (86%), while the experts who rated the validity of the test and the video lessons are four (14%). All in all, the study has 64 participants. names of the respondents were not revealed for confidentiality purposes.

This study used the simple random sampling in selecting the respondents from homogenous classes composed of 45 students. The 60 student-respondents from different sections were chosen by lottery to eliminate subjectivity. The 60 students were divided into two groups . The 30 students are included in the experimental group, which means their source of modality are through modular and other printed materials as a tool for teaching and the other group is control group, which means these students have access to ICT technology or other gadgets.

The respondents of the study were the students being taught by the researcher with the identified physical education topics for grade 7 students. meanwhile, the purposive sampling method was used to determine the four physical education experts. These four experts include: (1) Head teacher VI in MAPEH, he has rendered his service for 35 years and a head teacher in MAPEH at Sorsogon National High School , Sorsogon City. (2) A Master teacher, who is a graduate of BSED-PEHM. She is in service of teaching for 26 years already and she is also a coach in sports and another (3) Teacher III who finished BSED-PEHM, she has been teaching MAPEH subject for 12 years already and, a (4) Teacher II who completed BSED – PEHM – education, also in service and teaching MAPEH subject for 10 years already. The four subject matter experts analysed the group of questions or the structure of the test. The test was referred to the “table of specification”, it is used to determine the content and emphasis of the test, this part of the test building process that establishes “construct validity”. It is generally understood that a group of question (items) may constitute a test of knowledge in a given subject such as physical education.

The structure or table of test specifications identifies the number of questions, relating to the type of test, this help to ensure the “ content validity “ of a test.

3.2 DATA COLLECTION PROCEDURES

For the purpose of the validity of this research and for ethical purposes that fit the academic standards, the researcher may send a communication letter to the school principal asking for permission to conduct and distribute the survey tool. After getting the approval, the researcher may coordinate with the department head of MAPEH subject in the conduct and explain the purpose of the study. The respondents maybe given time to answer the pre and post test and some reflection and survey form. The data may be used for the paper be interpreted and analysed . The video lessons were developed and edited by the researcher anchored in most essential learning competencies.

3.3 DISCUSSION:

This study is descriptive since it described the following: (a) experts’ validity of the video lesson using DepEd LRMDS along content quality, and accuracy, (b) level of academic performance of the students based on the pre- test and post- test result, and (c) significant difference between the pre- test and posttest scores.

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b. Basic skills in festival dance
c. Types of exercise skills
d. Components of physical fitness.

The learning competencies under each learning contents are the focus of each test item. After the finalization of the test, the test was ready for dry run to determine its validity and reliability.

3.4 ANALYSIS

The data gathered were treated statistically. These are presented systematically by order of the study's problem. The DepEd NETRC or National Educational Testing and Research Centre scale was used for (MPL) mean performance level of the respondents, adopted in DepEd memorandum no.160,s.2012:

4. FINDINGS :

These findings were reached using the data gathered:
4.1 The educational content created in this project is a video lesson. The title, recall, lesson, and summary are the four fundamental components of the video lessons. The topic of the video lesson was highlighted in the title so that students can immediately see the main focus of the lesson, which will encourage them to complete its objectives. Remember that this section of the video lesson serves as a review of performances and abilities that students already possess from the last lesson. This section of the lesson covers the subject covered in the video lesson. Brief repeat of the primary idea, summary, and key information that is provided. This offers a selection of carefully studied materials that support performances and skills.
4.2 The validity of the video lesson was determined by four experts using evs adopted from DepEd lrmds. It is composed of four factors. The first factor is content quality which obtained an average score of 39.88. With the given points and comments necessary for the improvement and revision of the tool, factor a: content, passed the criteria set by DepEd. the second factor which is the instructional quality gained a total point of 39.88. With the given points and comments necessary for the improvement and revision of the tool, factor b: instructional quality, passed the criteria set by DepEd. the third factor which is technical quality gained a total point of 51.92. With the given points and comments necessary for the improvement and revision of the tool, factor c: technical quality, passed the criteria set by DepEd. The fourth factor which is the accuracy, gained a total point of 16.00. All experts (100%) recommend the approval of the material for possible use in public schools provided that the corrections/revisions included are made. Expert still believed that the video lesson is an excellent material in addressing the difficult experience of students in answering the self-learning module.

The mastery level of grade 7 physical education in the fourth quarter along four learning contents has an overall mean performance level (mpl) of 47% in the pretest described as average.

On the other hand the, the overall mean performance level (mpl) of the students in the pretest control is 41.75% described as average and pretest experimental was 49.50% , described as average also. Under this, the mpl for the four learning contents under pretest control are as follows: Basic skills in festival dance in the philippines has mpl of 39%. fundamental positions of arms and feet positions has mpl of 42% types of exercise skills has mpl of 39% components of physical fitness has mpl of 47% these are all described as average. While mpl for the four learning contents under pretest experimental are as follows: Basic skills in festival dance in the philippines has mpl of 42%. Fundamental positions of arms and feet positions has mpl of 46% types of exercise skills has mpl of 52% , components of physical fitness has mpl of 58% which means average. On the other hand the mpl for the four learning contents under posttest control are as follows: Basic Skills in festival dance in the philippines has mpl of 64% which is describe as average. fundamental positions of arms and feet positions has mpl of 69% types of exercise skills has mpl of 70% components of physical fitness has mpl of 69% these are all described as belonging to moving towards mastery. Finally the mpl for the four learning contents under posttest experimental are as follows:

Fundamental positions of arms and feet positions has mpl of 88%.Basic skills in festival dance in the philippines has mpl of 87% .Types of exercise skills has mpl of 89% , components of physical fitness has mpl of 86% these are all described as belonging to closely approximately mastery. this study used impaired sample t-test (two-tailed) to identify the existence of significant. Hence, there is a significant difference between the performance in the pre-test and post-test of the students.

4.3 This implies that the students' performance may have been improved or enhanced with the use of video lessons. it also indicates that the students may have learned the concepts of physical education. MPL has improved from 68% (moving toward mastery) to 88% (closely approximately mastery). This means that there is a significant increase in the level of performance of those learners who have seen instructive videos. The students' improved memory and attention, which allowed them to be more productive and engaged, may be responsible for the minor improvement in their results. This suggests that the usage of video courses may have improved the pupils' performance. Additionally, it suggests that the students may have picked up on the idea of physical education.

5. RESULT:

This study have resulted that the use of video lessons in the Physical Education subject is extremely important. Most teachers have been encouraged to use technology but there has been little expectation or enforcement of its use for instructional purposes. The current pandemic, on the other hand, has significantly increased the demand on teachers' time and ability to use technology, as well as the need for teachers to use technology effectively and efficiently. Prior to the COVID-19 crisis, video-based instruction as a primary teaching tool in physical education received little attention. Video is essential for reaching students and improving their comprehension of the material, and it is well worth the effort to obtain. Video as a Teaching Strategy is important because it can introduce a subject to students in a completely new way and help them understand the material they're reading or working with.

The following topics are: 1) Fundamental positions of arms and feet in folk dancing; 2) Basic Skills in Festival dance in the Philippines;3)Types of exercise skills and 4)Components of Physical Fitness.

6. RECOMMENDATIONS

Based on the conclusions, the researcher recommends the following:

- Other physical education teachers may be encouraged to utilize the video lessons to further enrich the instruction and address the competency needs of the students in grade 7 P.E along the fundamental topics.
- The developed video lesson may be further reviewed and validate to better improve its quality along content quality, instructional quality, technical quality, and accuracy.
- A robust experimental design may be used such as true experimental design to further test the effectiveness of the developed video lessons and practical test through demonstration.
- Teachers teaching physical education may organized seminars, workshops and intervention programs to bring up additional video lessons that will ensure the understanding and interest of the learners toward physical education.
- The developed video lessons may be used as a reference in creating more learning tools to enhance students' scholastic performance in physical education. Furthermore, studies related to video lessons may be conducted covering other branches of P.E. or physical education.

7. CONCLUSION :

Conclusions were formulated based on the findings of the study are as follows, such as that the video lessons on physical education were developed as supplemental learning materials to improve the performance of the grade 7 students in P.E. subject, the developed video lessons on the topic, physical education are valid since they all passed the criteria set by DepEd and the video lessons are effective in improving the performance of the grade 7 students in physical education.

- The video lessons on physical education were developed as supplemental learning materials to improve the performance of the grade 7 students in P.E subject.
- The developed video lessons on the topic, physical education are valid since they all passed the criteria set by DepEd.
- The video lessons are effective in improving the performance of the grade 7 students in physical education.

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