

An Evaluation of the Supplementary Material in Teaching Bachelor of Physical Education Students (BPed) in Laguna State Polytechnic University, Sta Cruz Main Campus

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ABSTRACT : The study used the descriptive quantitative research method in gathering information. The scope is centered only on determining the acceptability of supplementary materials in teaching Traditional Games and Sports among Bachelor of Physical Education students. The data and information were gathered using a survey questionnaire which was composed of 40 questions answered by 30 BPed students from the Laguna State Polytechnic University Sta Cruz Main Campus students. It specifically aimed to determine the level of acceptability in terms of content, design, adaptability, suitability, and usability, students mean performance in PEM 15, and the significant difference between the students' mean performance in PEM 15 in terms of pre-test and post-test. The study's overall results revealed that the supplementary material for PEM15 was perceived as very high. Specifically, the variables tested – content, design, adaptability, suitability and usability indicated that it received positive feedback from the students and can be effectively used for teaching PEM15. Also, the students' mean performance in PEM15 in terms of Pretest was very satisfactory. As for the Post-test, the students exhibited an outstanding level. Findings show that from the very satisfactory, it became outstanding. This denotes that students learned further through the use of the supplementary material. Therefore the null hypothesis stating that “ There is no significant difference in the students' performance in PEM 15 in terms of pre-test and post-test” is rejected which calls for the acceptance of alternative hypothesis. Hence, it is hereby recommended that the university may encourage the development of other supplementary materials that could help teachers develop effective students who would be future educators in the field of Physical Education.

KEYWORDS: *content, design, adaptability, suitability, usability, supplementary materials*

I. INTRODUCTION

Supplementary materials can be presented in many ways. It may be written instructional materials, videos, visual materials or gamified. However, supplementary materials such as modules are one of the most effective ways to teach students and to boost their interest to learn .

According to Spratt, Pulverness and Williams (2012), supplementary materials are books and other learning materials in their coursebook. Moreover, they added that supplementary materials might also be from “authentic” sources such as newspapers and magazines.

Perera(2017) also mentioned that a teacher may want to use supplementary materials and activities in her classes for a variety of reasons. According to him, these are as follows: to make the teaching more interesting and varied, to provide students with material that is appropriate for their needs and interests, to fill any gaps in the coursebook that may exist, to replace coursebook material that may not be appropriate or suitable for the class and to provide students with additional language/skills practice.

Multiple representations are also one of the approaches that are useful in learning process for many students with different kinds of learning. It is also a big help to those who are frustrated with reading. Teachers may not be able to see them personally to teach, but with supplementary material, educators can provide many representations such as verbal, graphs, picture, and videos (Boche, 2014)

CHED MEMORANDUM ORDER No. 80 series of 2017; Policies Standards & Guidelines for Bachelor of Physical Education (BPed), Article 1, Section 1, based on the Guidelines for the implementations of CMO No. 46 S. 2012, this PSG implements the “shift to learning based education” in response to the 21st Century Philippine Teacher Education Framework. Furthermore, this PSG is anchored on the salient features of K to 12 Enhanced Curriculum (RA 10533), the Philippines Qualifications Framework (EO 83, S.2012), the National CompetencyBased Teacher Standards (NCBTS), now the Philippines Professional Standards for Teachers (D.O.

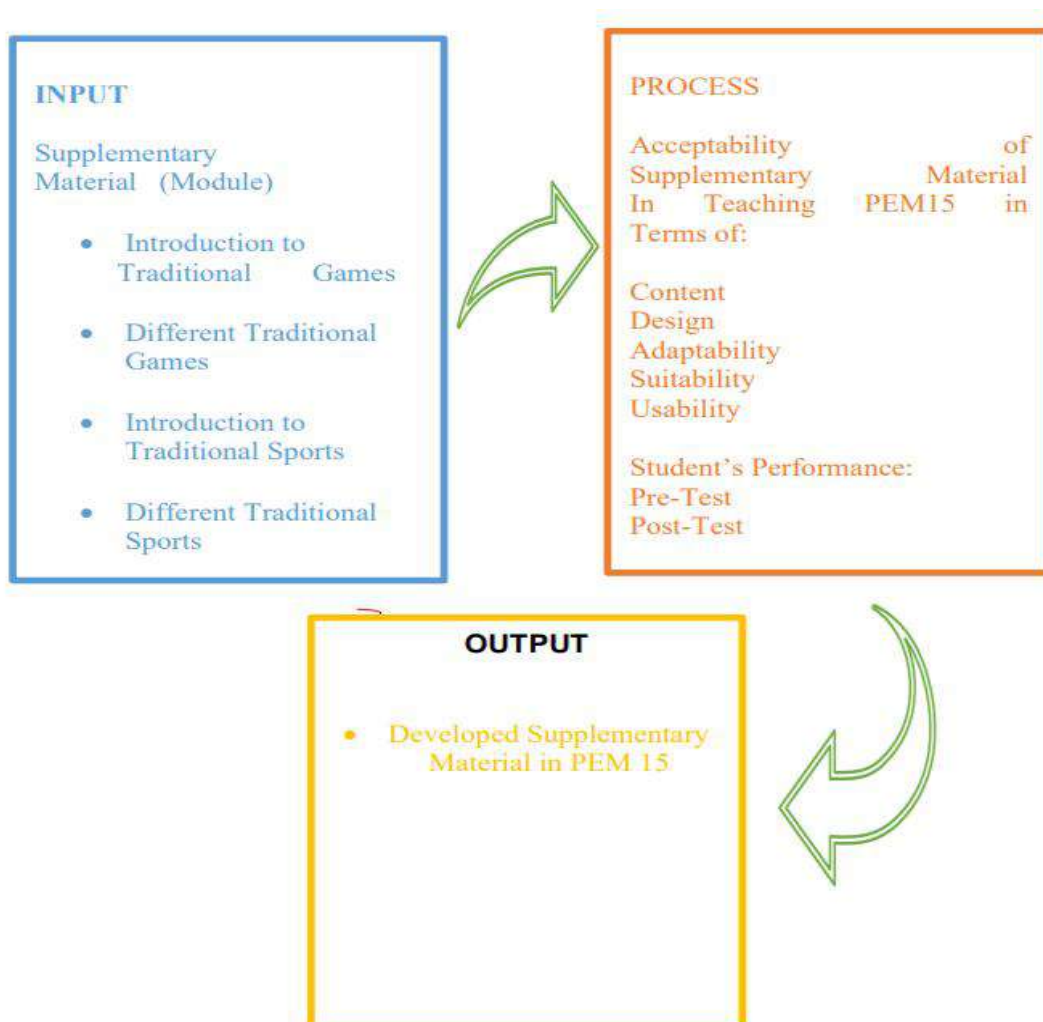
42, S. 2017) and other relevant documents. It specifies the core competencies expected of Bachelor Physical Education (BPEd).

As the College of Teacher Education offered this program, major subjects in BPEd have no particular reference book in which the subject teacher found difficulty preparing for the syllabus. One of the major subjects is PEM 15 with a course description, Philippine Traditional Games and Sports. This pushes the researcher to come up with a supplementary material intended for the subject perse. The researcher has thought of developing a module as supplementary material to engage students in finishing the course.

As cited by Nepomuceno, a module can be advantageous for students because it provides an opportunity for organizing numerous sequences of experience to reflect the students' special interest, and it allows the teacher to focus on student deficiencies in subject matter that must be corrected.

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II. METHODOLOGY



The paradigm is presented to give a better understanding of the research problem. The first box includes the Input of the study that consist of supplementary material. Topics are (1) Introduction to Traditional Games (2) Different Traditional Games (3) Introduction to Traditional Sports and (4) Different Traditional Sports. The second box consists of the acceptability of the material in terms of content, design, adaptability, suitability and usability. Furthermore, the students' performance based pre-test and post-test was also presented. Lastly, the third box presents the output of the research, which is the developed Supplementary Material for PEM15.

III. RESULTS AND DISCUSSION

Results and discussion are the following:

The table shows the level of acceptability of the supplementary materials in teaching PEM15 in terms of content.

Table 1. Level of Acceptability of The Supplementary Materials' Content

	Mean	SD	Remarks
1. The language used is understandable and specific.	4.51	0.59	Strongly agree
2. Meaningful information regarding the topic is directly provided.	4.43	0.61	Strongly agree
3. The instrument length and level of complexity are appropriate for the users.	4.19	0.64	Agree
4. Information is effective and helpful in completing the task	4.34	0.60	Strongly agree
5. The organization of information is clear.	4.38	0.64	Strongly agree
6. Topics are relevant to the daily activities of the learner.	4.29	0.60	Strongly agree
7. Content is presented in a creative way and motivates students to explore	4.15	0.61	Agree
Average Mean.	4.32	0.62	Very High

Legend:

4.21 – 5.00	Strongly Agree
3.21 – 4.20	Agree
2.61 – 3.40	Moderately Agree
1.81 – 2.60	Disagree
1.00 – 1.80	Strongly Disagree

The level of acceptability of supplementary materials in teaching PEM15 in terms of Content attained a mean score of 4.32 and a standard deviation of 0.62 and was interpreted as very high among the students. This implies that the language used is understandable, the information in the module is meaningful, effective and helpful, the topics are arranged clearly, and the ideas and information are presented clearly. Each content has the ability to integrate knowledge, solution techniques, and the possibility to build specialized learning abilities. These objectives must be detailed. Moreover, academic objectives are a critical component of the learning process for pupils. This is particularly true in the creation of online classrooms, where instruction is separated into technology forms of presentation, activity and assessment (Derek, 2016)

The table shows the level of acceptability of the supplementary materials in teaching PEM15 in terms of design.

Table 2. Level of Acceptability of The Supplementary Materials' Design

	Mean	SD	Remarks
1. The construction of materials are well organized.	4.47	0.57	Strongly agree
2. The sequence of materials (lesson, activities and tasks) is well designed.	4.44	0.63	Strongly agree
3. Patterns are used to make a more precise version for the learners.	4.01	0.59	Agree
4. The design modules is designed according to the course curriculum.	4.44	0.62	Strongly agree
5. Lessons and tasks are appropriately made for the users.	4.46	0.57	Strongly agree
6. Activities are aligned and helped students master topics in PEM15.	4.40	0.63	Strongly agree
7. Design of differentiated approach enhance learners' knowledge and mastery of the lesson	4.19	0.63	Agree
Average Mean.	4.34	0.61	Very High

Legend:

4.21 – 5.00	Strongly Agree
3.21 – 4.20	Agree
2.61 – 3.40	Moderately Agree
1.81 – 2.60	Disagree
1.00 – 1.80	Strongly Disagree

The level of acceptability of supplementary materials in teaching PEM attained a mean score of 4.34 and a standard deviation of 0.61 and was interpreted very high among the students. Overall, the result implies that the design of the supplementary materials is aligned with the needs of the students. Nusir et al. (2013) indicated that with the introduction of the Internet, and several new inventions and technologies, especially in the communication and the computer systems field, there is no need to enhance teaching and educational methods

through the utilization of those technologies which may improve the abilities of educators to present information in an interactive and media-enhanced formats relative to traditional methods.

The table shows the level of acceptability of the supplementary materials in teaching PEM15 in terms of adaptability.

Table 3. Level of Acceptability of The Supplementary Materials' Adaptability

	Mean	SD	Remarks
1. Provide the needs of the learner despite the current educational system.	4.42	0.57	Strongly agree
2. Address prior problems the students encounter and help them learn at their own pace.	4.47	0.55	Strongly agree
3. Let the students evaluate their progress and self-reflect on their needs.	4.42	0.58	Strongly agree
4. Contains activities that are responsive and interactive.	4.02	0.64	Agree
5. Topics are evenly distributed.	4.15	0.61	Agree
6. Use activities that are timely and suitable for the target learners.	4.16	0.60	Agree
7. Enable the learners to control their own knowledge through the use of supplementary material	4.44	0.57	Strongly agree
Average Mean.	4.29	0.59	Very High

Legend:

4.21 – 5.00	Strongly Agree
3.21 – 4.20	Agree
2.61 – 3.40	Moderately Agree
1.81 – 2.60	Disagree
1.00 – 1.80	Strongly Disagree

The level of adaptability of supplementary materials in teaching PEM got a mean score of 4.29 and a standard deviation of 0.59 and was interpreted very high among the students. This reveals that the supplementary material provides the needs of the learners despite the current teaching set-up, addresses common problems faced by students, allows them to assess and evaluate their progress and enables them to control their own knowledge through the use of additional supplementary materials. Learners are the main actor in the learning environment and they usually have varied and diverse cognitive and psychological traits. Therefore, one of the important facets of the adaptive model of learning is to adapt the presentations of the learning material to meet the needs of each individual learner during the course delivery process. To achieve such goal, it needs to detect learner profile to adapt the content an presentation of the learning material (Salama and Bokhary, 2018).

The table shows the level of acceptability of the supplementary materials in teaching PEM15 in terms of suitability.

Table 4. Level of Acceptability of The Supplementary Materials' Suitability

	Mean	SD	Remarks
1. Content format are planned and designed according to the needs of students	4.44	0.61	Strongly agree
2. Provides adequate information that is needed by the learners.	4.40	0.63	Strongly agree
3. Gives clarification on the lessons and/or topics that are least mastered by the students.	4.39	0.59	Strongly agree
4. Provides information that caters to the needs of the students	4.38	0.59	Strongly agree
5. Deliver knowledge that is clear, precise and easy to understand.	4.41	0.64	Strongly agree
6. Forego the traditional learning system and use interactive activities to help students learn more.	4.40	0.58	Strongly agree
7. Use real-world examples and hands-on activities so learners can experience more efficiently	4.39	0.62	Strongly agree
Average Mean.	4.40	0.61	Very High

Legend:

4.21 – 5.00	Strongly Agree
3.21 – 4.20	Agree
2.61 – 3.40	Moderately Agree
1.81 – 2.60	Disagree
1.00 – 1.80	Strongly Disagree

The level of acceptability of supplementary materials in teaching PEM15 in terms of suitability attained a mean score of 4.40 and a standard deviation of 0.61 and was interpreted as Very High among the students. The result implies that the supplementary material evaluated shows a positive outcome and address the needs of students. Each module supports teacher educators in engaging teachers in learning about argumentation through activities

utilizing these features. A key aspect of argumentation is to promote student understanding of scientific knowledge's nature (Bujosa et al., 2017)

The table shows the level of acceptability of the supplementary materials in teaching PEM15 in terms of usability.

Table 5. Level of Acceptability of The Supplementary Materials' Usability

	Mean	SD	Remarks
1. Usable according to the learning target	4.38	0.60	Strongly agree
2. Teachers can appropriately use it in teaching the course.	4.49	0.59	Strongly agree
3. Provides more information needed to understand the course.	4.39	0.58	Agree
4. Comprises activities and content needed for better understanding	4.48	0.57	Strongly agree
5. Allow students to explore and learn more about the course.	4.01	0.60	Agree
6. Provides specific language easy to understand.	4.05	0.60	Agree
7. Helps students learn more knowledge-specific topics	4.48	0.57	Strongly agree
Average Mean.	4.32	0.59	Very High

Legend:

4.21 – 5.00	Strongly Agree
3.21 – 4.20	Agree
2.61 – 3.40	Moderately Agree
1.81 – 2.60	Disagree
1.00 – 1.80	Strongly Disagree

The respondents' answers are diverse; some statements are remarked high and others are very high. This further implied that supplementary materials' usability might vary depending on how the respondents perceive their uses. Moreover, the data in table 5 revealed that the module allows the respondents to explore and learn more about the courses, but not as much as the other questions in the variable indicates. Smith(2017) established that usability is a measure of a product that has been used to specific scenario by specific users, which can achieve the special goal to a satisfied and effective degree which is reflected by human factors and evaluated by operating a variety of tasks and to describe how a user can interact effectively with a product and how easy a product can be operated.

Table 6. Significant difference between the Students Mean Performance in PEM 15 in Pre-Test and Post-Test

Performance	Mean	Variance	t-statistics	Critical t	p-value	Analysis
Pre-Test	31.469	4.732	-8.843	1.979	0.000	Significant
Post-Test	34.169	7.382				

There is an observed significant difference between the tests. This is evident by the computed t statistic, which is -8.843. This implies that the post-test scores were higher than the pre-test scores due to the negative result. This may imply that the supplementary materials helped the students learn and gain knowledge in PEM15. Specifically, the computed data revealed that with the module, the respondents found it easier to grasp and understand the lessons presented to them.

IV. CONCLUSIONS

The results of the study implies that the supplementary materials helped the students learn and gain knowledge in learning PEM15. Specifically, the computed data revealed that with the module, the respondents found it easier to grasp and understand the lessons presented to them. Thus, the researchers further concluded that the null hypothesis stating that "There is no significant difference in the students' performance in PEM15 in terms of pre-test and posttest", is rejected, which calls for the acceptance of the alternative hypothesis.

V. RECOMMENDATIONS

Based on the findings and conclusions of the study the following are suggested: it is recommended that university may support the development of other supplementary materials that could help teachers sustain the students' learning; enhancement in terms of adaptability, content and usability of the supplementary materials

may be given focus; teachers may continuously engage students in alternative learning materials that can cultivate their knowledge and learning experiences and lastly, teachers may consider testing the effectiveness of the supplementary materials in other aspects of learning.

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