



# Boost Enhancing Electronic Teaching Material (ETM) of Modern Physical Education Practice (PEP) pedagogical Technology Over Problem-Based Learning

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## ABSTRACT

The article aims to increase enhancing Electronic Teaching Material (ETM) of modern (PEP) pedagogical technology, which adopted in the teaching of faculties and some universities can't match instructional requests currently, while (ETM), which combines multimedia image, visibility and good stereo characteristic features, and robust interaction with computer-assisted learning coursework and develop high capacity, has been common learning resources through different topics. In comparison with traditional teaching material, the electronic teaching material (ETM) can explain major and difficult points in teaching over more perfect teaching design, suitable teaching media chose and implement of multimedia, such as, diagram, icon audio effect, video and animated cartoon .Beginning of the request to build (ETM) based on modern (PEP) pedagogical technology ,this study will explicit increasing enhancing multimedia (ETM) of modern (PEP) pedagogical technology under the design idea electronic teaching material (ETM ) of modern physical education practice (PEP) pedagogical technology, it necessity to meet instructional needs for both lecturers and learners.

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## Introduction

The electronic teaching material increased widely and applied in education with rapid enhancing and development of modern pedagogical technology. Electronic teaching material (ETM) can enhance learning interest and best initiative, increasing the learners to spend the particularity and improve information restores capability in application. Moreover, the electronic teaching material (ETM) can broadly reduce cost of teaching material and achieve consuming low-carbon to environmental protection in teaching material. Meanwhile the easy amendment of (ETM) ensures that teaching contents scientific and accurate.

### Material of Modern (PEP) Pedagogical Technology

*Traditional Teaching Material of Modern (PEP) Pedagogical Technology is Very Difficult to Meet the Modernity Teaching Requirement*, at present current education of modern physical education practice (PEP). Meanwhile the pedagogical technology in faculties and universities mostly still on the style of "Classroom information as well as extracurricular practice and the learners cannot have more interest, it is difficult to trigger learning passion and traditional learning effect is not perfect enough in such traditional educational style[3,7]. According to our survey and interview which conducted, we find out that the learners of modern (PEP) pedagogical technology would instead multimedia material on computer and its applications than read books. Like case requires us to enhance and develop (ETM) to mimic learners' sense organs by using multimedia as a motivation for the keen student toward student interest and boost improve learning effect[7,2].

*As for the Electronic Teaching Material (ETM) has been Predominantly on Shortage of Class Hour to Some Range* ,limited by class hour, while modern (PEP) pedagogical technology previously has approximately 36-54 class hours in

the general case and it is difficult for learners to mastering knowledge and skills in restricting class hour .Moreover the electronic teaching material (ETM) is a universal learning system and the learners can learn in system quickly and easily as long as they using many software on computer .in addition the students can reach lecturers 's teaching effect by means of contents showed in image , video, and several multimedia, however the electronic teaching material overcomes many shortage of class hour to some range[13].

### Design Base for Electronic Teaching Material (ETM) of Modern Physical Education Practice (PEP) Pedagogical Technology

*Emphasis on "Learning –Based" Teaching Ideas*, as known the constructivism learning theory focus on maintaining that the learner is the subject in the study and all teaching threads shall centralize on the learner. Majority of locally known scientists supports that the education rehabilitation in faculties and universities shall be "based on learners" and shifted from "lecturer centered" in the traditional way to "learner centered ". While the design of electronic teaching material (ETM) of modern physical education practice (PEP) pedagogical technology shall urge on "learner-based" idea, begin from the learner's normal request and induce or guide them to higher thinking. Inform and implement everything effectively necessity to understand sense construction of subtly and knowledge [17, 5].

*Embrace "Double-Learning center" Teaching System in Design*, established under the directives of constructivism learning theory, the "double-Learning center" teaching is a new teaching design style which considers as a catch "learner's personality and instructor's control". This style seeks to avoid some of phenomena comprised "driving method of teaching"

and “adrift learning” which appear when just one teaching style is developed in education. Meanwhile, the teaching design of electronic teaching material (ETM) of modern physical education practice (PEP) pedagogical technology develop the design idea of “instructor’s overriding –learner’s personality” in this case learners can use more logical learning strategy for mastering learning contents, enhancing and improve self-learning capability and perfect teaching process.

**Adopting “Problem-Based Learning” as teaching Leading,** Socrates one of the researchers stated “the education is not the padding only in the boat, but the kindling of torch”. In this occasion the education shall begin with the main form of human being’s growth and learners grow with problem and solution. In this respect, instill of the knowledge will never be a sweeping task in education, but the suitable way to learn how to conceptualize and solve any problem. Moreover, we shall apply and implement “problem-based learning” in electronic teaching material (ETM) environment, organize the problem-linked learning effective way triggered learners’ learning with high initiative [10, 8].

#### **Analysis Teaching System Design of Electronic Teaching Material (ETM) of Modern (PEP) Pedagogical Technology**

##### **Analysis of Teaching Objectives**

All the contents of the Modern (PEP) pedagogical technology are chosen according to teaching material classified by a group of research and central points, syllabus included confirmed and accordance of difficult points and teaching objectives. In addition the general course objective: to increasing the emphasize the research over particular operation process, meanwhile the method and methodology involve systematic method is arranged and used to contribute to solve pedagogical and teaching different problem, on the installation and legislation of modern education process, on correlation among different basic elements, on conducting design, application and evaluation of education and manage teaching system and on the using a lot of application of teaching resources[1,15]. The aim is to explore development history and pertinent concepts of pedagogical technology; to develop the learners to be striped and guided by the

Reality, thus learners can understand the scientific range of pedagogical technology. Over such basis; the advanced teaching philosophy and the suitable method are applied in physical education practice (PEP) to enhancing training and teaching.

##### **Analysis of student’s Characteristics**

Usually the student’s characteristics comprise most learning needs, learner’s attributes and features, learner’s personal psychological profile, knowledge level and skill, as well as others analysis. The learners of modern physical education practice (PEP) pedagogical technological are adult students who are largely the undergraduates their specialty in pedagogical technology in center of physical training in center instructional technology and multimedia (CITM) USM university sciences Malaysia, 2013. Who they are not very interested in acquisition on the theoretical Knowledge of modern (PEP) pedagogical technology and not understand the details of contents for general course or have good thinking of using a professional subject system. In addition they shall be directed in a suitable way.

##### **Analysis of Gain Knowledge**

In comparison with main training objectives of pedagogical technology Major in center physical training for center instructional technology and multimedia (CITM) USM, University Sciences Malaysia, allocated specific location and included high and middle school teacher pedagogical technique

to test Ability Standard, core contents of modern (PEP) pedagogical technology are also improved by utilizing main contents of traditional educational technology, unification information technology, media technology, PEP teaching and exercise training. while major contents included multi overview of modern (PEP) pedagogical technology, theoretical basis of modern (PEP) pedagogical technology, enhancing and development history of pedagogical technology and (PEP), as well as PEP teaching resources and some exercise of effective training, and assessment on teaching resources and how teaching process conducting, situations of information and technology in instructional technology and multimedia for education.

##### **How Choose Some of Instructional Strategies**

Starting with “learner centered” teaching system design, provide learners by effective multimedia electronic teaching material constantly can fosters and caters to launching a learner’s initiative and motivate their psychomotor ability and activeness to the acquisition of knowledge and skill. Moreover empowering the learners to attain some of opportunity to learn in several ways and increasing their comprehension of mastering knowledge and skills. In addition the instructional strategy emphasizes on how to help learners to “learn” and management problem-based learning strategy and enhancing self- adaptive feedback in practice self learning [6, 11].

**Forming problem-based strategy:** as a concept of “problem – base learning” point to type of robust and competence learning way built in conformity with new course idea and principle of problem method in order to the learners can easily explore knowledge and tasks with the purpose according to the nature of the faced problem and adapting of the context set by instructor. Problem based learning strategy described by transferring exertion on detecting problem, analysis problem and give a subtle solution for the problem; transforming learning content into problem or follow the problem sequentially; orienting the learners to gain new knowledge effectively during the modification of the problem faced and instill their new method and ability on to develop knowledge to give actual solution to the problem over context set of problem.

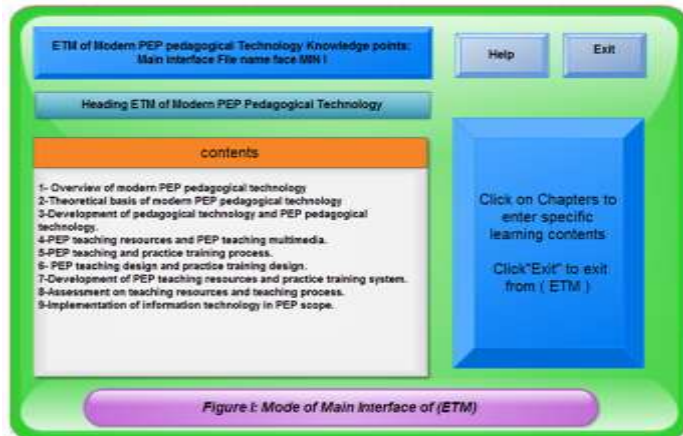
**Self-directing feedback strategy:** Self- directing feedback strategy point to the learning system which equips learning prop suitable for individual characteristics concerning the same difference in individual based learning. Self-directing feedback refers to different learning suggestions will be equipped to the learners in feedback depend on the learner’s learning effect in order to lead to realize self-directing learning. In addition one test equipped after ending of each chapter in electronic teaching material (ETM), moreover the system will present identical learning suggestions with each other to the students over test result.

##### **Chosen of Suitable Teaching Method**

Based on suitable and robust strategies chose before, the suitable teaching method shall be chosen to regard several of knowledge points in teaching contents and different teaching objectives. The main teaching methods used comprise many methods such as lecture method, practice different method, effective case method. In addition the suitable lecture method is basically used in learning of clear theoretical concept; meanwhile the case method is used in learning of some multi concepts and theories, while the practice often used in an independent training after the learners have ended some skills had been acquired. Diverse teaching methods shall be united in the teaching process in order to reach the perfection of learning effect.

##### **Chosen by Teaching Media**

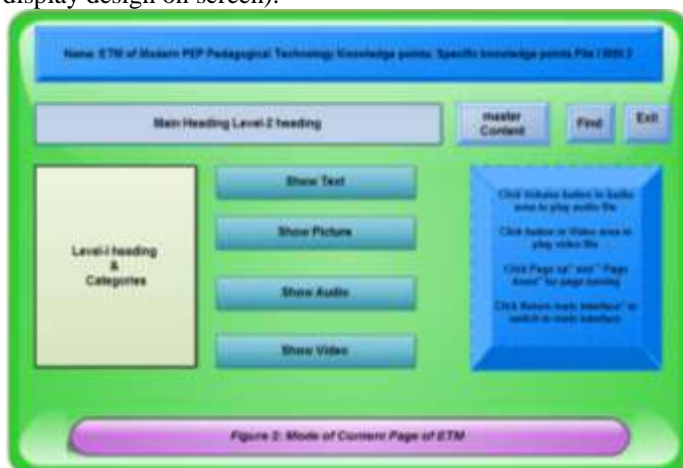
Regarding many media chosen for electronic teaching material (ETM) of Modern physical practice (PEP) pedagogical technology, while the application basic aim of media shall be explained in correspondence with teaching objectives, teaching contents, realize level, bearing in mind the teaching strategies and teaching method occurred in the previous stage and then appropriate media kind shall be chosen by analysis way on the benefits of diverse modes. A big number of quantities of graphs, presentation, images, audio and visual multi-media are adopted in this electronic teaching material (ETM).



## Design and Investigation of (ETM) of Modern (PEP) pedagogical technology

### Electronic Teaching Material (ETM) and Script Design

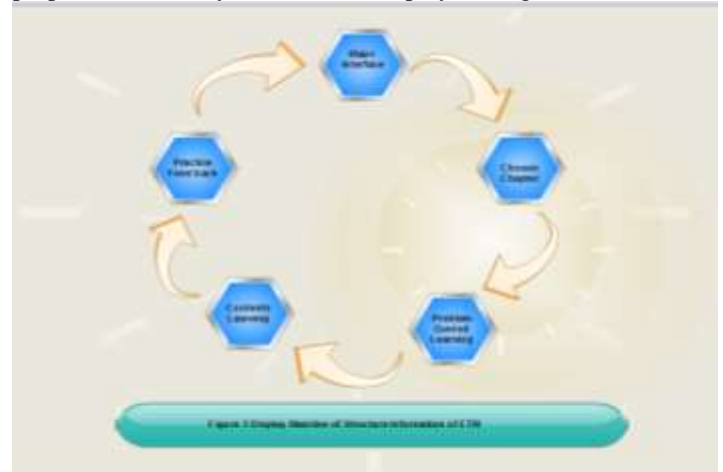
The script design considers one of specifies the teaching contents and robust teaching strategies of multimedia (ETM) , moreover script design can arrive to show information, image design , collaborative way and high learning process control of each stage in teaching materials and script design consider also a direct basis for elaboration of (ETM). In addition script design comprise character script and readiness script .The classification of character script is included in characterization of teaching objectives , knowledge structure and analysis, as well as the orders for some of services objects and chosen methods and used,etc... . The elaboration script design encompasses also characterization of the software structure, analysis on main modules, smart design of software screen, the characterization of connectivity relationship and others. (Figure 1 and Figure 2 display design on screen).



### Essential Design of Electronic teaching Material (ETM)

Adopts of the electronic teaching material (ETM) of Modern (PEP) pedagogical technology consider of compound organizational structure, the learner can freely by easy way traverse in certain scope, taken into account affect by the linear guidance of the instructions mainline at the same time (as

explained in Figure 3) in this case the student can enter according to flow order provided as well as choose to enter some teaching material freely. Meanwhile open some of electronic teaching material(ETM) to allow to enter animated cartoon interface firstly , then can click it to enter main navigation interface directly( the mode displays in Figure1) click the active text behind each section to connectivity specific content page to purpose of the study( the mode is displays as Figure2).



### Browsing Design of (ETM)

The main browsing design of Electronic Teaching Material (ETM) in browse and explore among different pages can be find at any time by browsing bar for each interface of teaching material in order to help the students to explore some pages directly. Moreover, the paging connectivity on down right of each page can be ready to mobility so as to move the page of teaching material. This mobility can appropriately realize the connectivity between main interface and content page and content with each others.

### How to Design Page Layout of (ETM)

Regarding the colors of main interface are blue and green which provide steady and compatible sense. While help some information is set on main interface and user can view basic notes and related operation method of this system by press help button. In addition, the content mobility is set available on main interface, while main colors of chapter contents are blue and green also which are in line with major content. Regarding teaching procedures which are set in chapter content, involving problem guided learning, self direct learning feedback and others.

### Create interactive Design of (ETM)

To create interactive design in basically included in mobility interaction and ask to response the interaction. The (ETM) starts mobility interactions some functions over column mobility on the left of main mobility interface set shown in (Figure 1) and "main content" mobility on the right corner of page(Figure 2).There are analogical exercises after the contents are learned and student can proceed test. In addition there will be a symmetric feedback test outcome after the test outcome is ended and it can provide some convenient operation opinions to the students: 1) Very good, please keep on the learning in next module; 2) Good, please keep on the learning in next module; 3) Average, please reply contents not proficient;4) Undesirable, please reuse this module.

### Conclusion

Generally the electronic teaching material (ETM) of Modern physical education practice (PEP)

Pedagogical technology equips various and abundant learning resources for learners in pedagogical technology core of

center physical training for center instructional technology and multimedia (CITM) USM University Sciences Malaysia and high quality teaching ambiance for instructors 'teaching. The speed of interaction diversity and set of context of (ETM) compensate the flaws of traditional printing to many teaching material. Develop and enhancing future (ETM) is not easy or simple and refines digitalization of traditional teaching material, but the learning scope with multimedia, connectivity feedback and sustainability support. Due to the (ETM) has effective and deep social basis and is learners in different sectors oriented educational demand, became development trend inevitable that electronic teaching material (ETM) alternatives traditional teaching which represented by paper teaching material and is very urgent need for this purpose.

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