

Project Proposal

No Objection Statement

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Project Title: *Utilizing Microsoft PowerPoint and Other Related Software for Effective Teaching in High School Mathematics*

Rationale

One of the most significant events of the 20th century - if not in the history of mankind- is the development of electronic digital computers. The impact of computer technology in the world of science and business is now Legion, and it is already affecting the educational enterprise in significant ways, especially in terms of its possibility of mediating instructions.

One of the main goals of education is to prepare the students to function well in the society (Multimedia and Information Technology Seminar Workshop Paper, 1997). Students of today will be spending their adult life in tomorrow's world projected to be an information-technology age. There is therefore a need for educators to adapt to the changing environment and to use technology to their advantage. Concretely, the possibility of integrating instructional technology into the school curriculum, particularly computers and videos, must be explored. The introduction of technology in the classroom at all levels of education shows that there is a much needed change in some teaching practices.

Mathematics, on the other hand, is a very important subject for science and technological careers but many students show difficulties and failures in Mathematics learning. Therefore, there is a need for creating a Mathematics program designed to make learning more effective and for the prevention and remediation of Mathematical learning difficulties. This will help facilitate learning and increase learning gains for below and average level students.

One great challenge that teachers will face is that when, what and how to use technology in planning and introducing this in their classrooms even if they have previous knowledge with equipments and some educational software. Besides the necessary Mathematical background, teachers should know about teaching with technology integration. They should also be able to produce and interpret technology-generated results, develop and evaluate alternative solutions to remediate students that have below-level proficiency in Mathematics.

Oldknow (Oldknow, 2000), says that the effective use of Personal Computer Technology in supporting the Mathematics curriculum is in the hands of the Mathematics teachers. They need to

know more about the use of technology that can just be found from manuals, teaching materials and other information resources.

Also, in the same reference, Comu is of opinion that Mathematics is evolving and changing under the influence of computers and informatics. Therefore, teachers need to maintain their Mathematics knowledge and to practice Mathematics from an informatics point of view. As Mathematics is becoming more experimental, more algorithmic, more numerical, teachers must be able to follow the evolution of Mathematics, and to acquire new competencies and new attitudes and to be able to carry out new activities.

Despite the numerous uses of computer in education, the initial cost of integrating computer technology into the curriculum barred most schools from the benefits it may promise. Considering the high cost of integrating technology into the curriculum, administrators and even teachers begin to raise question about the effectiveness of computer-based instruction result in improving student performance.

Added with the lack of technological resources, schools having the biggest bulk of students in the Philippines especially in public schools, makes teaching a more challenging task for teachers of this time. Even with the updated teaching strategies, it is again maybe considered as obsolete in this age of technology, if teachers can not adopt with it.

The proponent's aims are to share her knowledge on how to incorporate Mathematical content using Microsoft PowerPoint, demonstrate the way of using the Mathematics software/programs to help the teachers understand its role to education and consequently facilitate its effective use in their classes, and donate a computer laptop for Quezon City High School which Mathematics teachers can use in integrating PowerPoint in teaching.

This project proposal also aims to discuss with the Mathematics teachers the importance of educational software and how it provides exciting and meaningful lessons. It will also discuss how teachers will be benefited from the use of technology in the sense that they use the facility it

provides, to deliver better lectures and presentations, and also to let them feel the pleasure of creating their own activities.

The proponent therefore believes that in her little way, she will be able to contribute to at least 30 mathematics teachers in the District of Quezon City and in general to sustain the existing educational program of the Department of Education on technological integration in teaching; by sharing the teaching skills gained from her experiences and through trainings/seminars as a Visiting International Faculty in North Carolina, USA from 2004 up to the present, more specifically, in terms of technological resources.

The seminar –workshop will be hosted by Quezon City High School and will be held in the computer laboratory in coordination with the proponent through the Department Chair Mrs. Veneracion SG Papango and its Principal Dr. Diego Amid.

General Objectives

At the end of the implementation of the project proposal, the participants are:

1. Equipped with the basic computer skills, to be able to adapt with the computer technology in teaching activities such as test constructions, lesson planning and actual teaching.
2. Acquired basic skills in creating PowerPoint presentations to sustain the existing educational program of the Department of Education on Technological Integration in classroom teaching to High School Mathematics curriculum.
3. Familiarized with variety of software programs as one of the resources in teaching Mathematics with emphasis on problem solving skills and collaborative work to sustain the existing educational program of the Department of Education on Technological Integration in classroom teaching
4. Improved lesson presentation through the use of Microsoft Powerpoint for curriculum development and for the accomplishment of routine tasks by creating at least one of the best lessons in Math.

Specifically, at the end of this undertaking,

The teacher participants of Quezon City High School must be able to;

1. Construct a test bank using the test maker softwares.
2. Feel and appreciate the needs and advantages of integrating computer technology in classroom teaching activities.
3. Create PowerPoint Presentation lessons for teaching mathematics.

Project Description

Microsoft PowerPoint (full name Microsoft Office PowerPoint) is a popular presentation program developed for the Microsoft Windows and Mac OS computer operating systems. Being widely used by businesspeople, educators, and trainers, it is among the most prevalent forms of persuasion technology.

In Microsoft Office PowerPoint, as in most other presentation software, text, graphics, movies, and other objects are positioned on individual pages or "slides". The "slide" analogy is a reference to the slide projector, a device which has become somewhat obsolete due to the use of PowerPoint and other presentation software. Slides can be printed, or (more often) displayed on-screen and navigated through at the command of the presenter. Slides can also form the basis of web casts.

PowerPoint provides two types of movements. Emergence, emphasis, and exit of elements on a slide itself are controlled by what PowerPoint calls Custom Animations. Transitions, on the other hand are movements between slides. These can be animated in a variety of ways. The overall design of a presentation can be controlled with a master slide; and the overall structure, extending to the text on each slide, can be edited using a primitive outliner. Presentations can be saved and run in any of the file formats: the default .ppt (presentation), .pps (PowerPoint Show) or .pot (template). (<http://en.wikipedia.org>)

Educators would be able to see that the ease of use of presentation software can save a lot

of time for people who otherwise would have used other types of visual aid —hand-drawn or mechanically typeset slides, blackboards or whiteboards, or overhead projections. Ease of use also encourages those who otherwise would not have used visual aids, or would not have given a presentation at all, to make presentations. As PowerPoint's style, animation, and multimedia abilities have become more sophisticated, and as PowerPoint has become generally easier to produce presentations. In other words, PowerPoint maybe is a deviation from traditional chalk – board teaching into more interesting animated and sophisticated presentations that can be used in teaching.

Powerpoint is only but one of the programs that can be utilized in teaching. There are other computer programs which are interactive and can illustrate a concept through attractive animation, sound, and demonstration. They allow students to progress at their own pace and work individually or problem solve in a group. Computers provide immediate feedback, letting students know whether their answer is correct. If the answer is not correct, the program shows students how to correctly answer the question. Computers offer a different type of activity and a change of pace from teacher-led or group instruction.

The proponent therefore, would like to:

1. Conduct seminar – workshop on creating PowerPoint and the use of the different software and how they can be integrated in the day-to-day classroom activities;
2. Present Mathematics software/programs that would mainly help the teacher gain the interest of the students on the lesson with animated presentations. One of which is by ready made PowerPoint lessons. It will also include sample lesson plans and most importantly a test bank that is readily available for the teachers; and
3. Donate a computer laptop to Quezon City High School that mathematics teachers can use for the application of the proposal in classroom teaching.

OPERATION/METHODOLOGY

Stages of Implementation:

1. Planning

- Coordination with the Math Department Chair and Principal of Quezon City High School.
- Coordination with the Math Department and the Principal to invite teachers - participants.
- Preparation of the sessions, handouts and other materials needed for the project.
- Pre –registration of the participants.

2. Actual Implementation

Seminar – Workshop: “Microsoft PowerPoint and Other Related Software for Effective Teaching in High School Mathematics”

A. Location

Having been taught for several years in the public school of Quezon City, the proponent is aware of the need for this project in her previous school. The proponent therefore desires to share and implement her technical expertise to her counterparts in the areas mentioned in this project in the Department of Education, Division of Quezon City.

B. Host School

Since the proponent was one of the humble teachers of Quezon City High School, she preferred that the seminar –workshop be hosted in this school where the facilities needed for the project are also available to the said school.

C. Participants’ Profile

Mathematics teachers of Quezon City District IV.

Teachers' computer literacy.

Teachers' receptiveness in integrating technology.

3. The Methodologies or Strategies of Knowledge Transfer

The proponent will utilize different strategies in order to facilitate the transfer of learning such as Cooperative Learning, Teamwork,

Modeling, Lab Teaching and Active Learning.

4. Evaluation

- A prepared evaluation form is to be used to appraise the implementation of the project.
- Printed output of the PowerPoint presentations created in handout form will be required from each participant.

PROJECTED OUTPUT

The terminal results according to the target beneficiaries of the project in accordance with the objectives are the following;

Teachers:

- Acquired basic skills in creating and using PowerPoint presentation lessons in teaching mathematics.
- Created the best mathematics lesson in mathematics in their respective subject area being taught.
- Generated sample test using the Test Maker software.
- Confident and competent teachers to be able to adapt with the fast growing technological advancement.

Administration:

- Increased number of competent teachers in Mathematics.
- Sustained Technological Integration in the High School Mathematics curriculum in District IV.

Inputs/Budget

Item	Description	Cost
1	Laptop	\$850.00
2	LCD	\$800.00
3	CDRom/Software	\$500.00
4	Manuals/Handouts	\$100.00
5	Fare	\$1800.00
6	Meals/Refreshments	\$300.00
7	Contingency Fund	\$100.00
8	Tokens/Door Prizes	\$150.00

Project Evaluation and Monitoring

The implementation of the project proposal will be evaluated using the pre –designed evaluation form pattern to other seminar – workshops (see attached Evaluation Form). The participants as respondents rate the corresponding indicators to show the success of the project.

Ultimately, the success of the project is not only indicated by the good ratings of the participants to the proponent, but in its application in the actual teaching in the respective schools and classrooms settings. The proponent, therefore, will coordinate with the Principal to conduct an

observation of the effectiveness of the application of the project in the actual teaching activities of the teachers. The effect of the integration of the project can be evaluated by using a correlation of the Teachers' Performance Rating during the application of the project and the previous Teachers' Performance Rating. A correlation of the Student's achievement tests during the implementation of the project and the previous achievement tests before the application of the project can also be conducted.

Participants will also be asked to have a compilation of their owned – made Powerpoint presentation lessons and a test bank per school that can be presented quarterly for analysis, evaluation and improvement.

A constant communication through electronic mails and phone calls will also be extended for the sustainability of the project in cases of problems encountered during the application of the project in the respective schools, and most importantly for sharing and upgrading of Ready – Made PowerPoint Lessons and other related software such as Test Maker.

REFERENCES

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