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Creating a computer-assisted instruction on the web page

for Students grade 6

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Introduction

The current global focus on information and communication technology as a tool to be used in developing countries, and it is clear that information technology has greatly influenced the development of technology such as computers Improves production efficiency management and the promotion of quality learning. The various countries Worldwide take advantage of information technology widely. To build capacity in economic competitiveness and quality of life of people in society, and considering the current economic and social change in international countries oriented towards economic and social development of wisdom and learning that reflects the importance of information technology increased because the technology is critical to the production access storage and the spread of knowledge as inputs to the economic and social system of wisdom and learning. (National Information Technology Committee Secretariat . 2002 : 1) , and the rapid advancement of

technology. At present, the computer has to be involved in the lives of all people inevitably with the development of information systems that change into the Information Age. The concept of bringing computers into education is commonly accepted in many countries for Thailand government clearly defined the criteria for the provision of computers used for teaching in the departments and institutions of the state. It can be seen from the fact that education levels. Computer courses and bring to a microcomputer teaching various subjects. And it is admitted to the microcomputer capacity than other types of learning and teaching ever been. It can meet its goals of teaching and learning with complex forms and patterns of individual learning which will lead to the development of the abilities and intelligence of the students fully in the training of the individual.

Education reform in teaching and learning with a focus on learner-centered (Child Centered) of the Education Reform Act 1999 , which the students will not only learn in the classroom to research from

document texts and other learning resources . The CAI is the one medium that can bring students back to learn more and achieve the learning effectively. Principles of computer assisted instruction is to focus on student learning is key to the role is responsible for their own learning, and learning to be successful if the students are engaged in learning activities. This is consistent with the vision of the Ministry of Education Stated that Ministry of Education expand educational opportunities directing of Education providing basic minimum of 12 years without charge for all children and

youth Thailand. And improving the quality of education at all levels by providing a student-centered focus on learning a happy and focused on learning as much as possible with the actual implementation. Organizing and promoting non-formal education and formal education. (Ministry of Education In 2004) .

But reforming the current study also does not work as expected. This can be seen from the network president, parents, and youth to education reform has made an open letter sent to the Prime Minister and Minister of Education. In summary, the idea was that in high school should not be the same class for years such as a home economics, sewing, woodworking and learning the history of music, dance or language arts every year. Religion to the children learns a lot thick books that force

everyone to learn the same. The child should be selected according to their interest and aptitude. Because those subjects to students from elementary. And secondary school children should have a variety of courses, particularly the introduction of IT , such as making a website. Programming the animations, etc. which will make children less stressful and tiring by the development pace which typically describe how teaching is done by the media. To help the students get a better understanding of the effectiveness of the proposed maximum in the lectures, the instructor will have a technical presentation using a person is presented to the media and may have to write down the topics and content to the students with modern methods. Present facilitate teaching and learning as a convenience. By using the techniques presented by computer (Gidanun Malithong 1994 : 201), thereby improving the learning activities and teaching to inspire and engage students to want to follow the content of the lesson will be representations gives students the opportunity to develop their own knowledge and experience fully the capabilities. This will help with the learning outcomes and better. Improving teaching and learning using computer-assisted instruction is a teaching method that teachers should use the CAI is an activity that is particularly important in practice allows students to study on their own training and responsibilities of students and create fun , not cause boredom and learning . And help resolve the differences between individuals. By the students can study by themselves. This is consistent with Rung Kaewdang (2002) have said . To fix the education system of Thailand is to meet the educational potential of the students. Students to learn as you like and the students learn happily.

From the above data, the researcher found Computer technology and instructional media is associated with the achievement of students. And therefore that the researchers are confident that teaching with the use of computer-assisted teaching, including teaching the achievement of learning about creating a web page for students in Grade 6, which studies knowledge from books or from teachers in the form of lectures . The students cannot see the reality of the program and see the results of a Web page. Cause problems in the process of applying knowledge to practice and apply their knowledge to use in creating web pages. The most common problems in teaching is a difference in perception of the students. The learners to get information or knowledge are not equal. Those who learn quickly inherited one can understand the lessons. But the school was slow to explain over and over again causing problem all the time knowledge of the instructor and the differences between individuals to become the barriers that can lead to the process of learning the skills and apply the knowledge to everyday life. Therefore, computer-assisted instruction on creating Web pages help students in Grade 6 will be tools that can help one achieve a complete instruction to the learner's attention to want to learn, and learning is a learner-centered focus. It also helps to solve the above problems another way. , Students can study the contents of the CAI manually. Those who learn faster, it can go ahead. The lesson to be learned soon without limit of time reduces problems of overlapping in the teaching process.

Description

Education Act and related courses

1 . The Education Act BE 2542

2 . Curriculum BE 2544 Basic Education Department Career and Technology Education Act 2542 .

The Education Act 2542 defines education as detailed as follows: Section 22 Education to principle. Every student has the ability to learn and develop themselves. And assume that the learner is of utmost importance. The education must encourage students to develop their full potential and Section 24 of the natural learning process and education related agencies perform the following. Substance and arrange activities in line with the interests and aptitudes of the students with regard to the differences between individuals cognitive coping skills to handle the situation and the application of knowledge to prevent and correct activities that the students have learned from experience. Training and practice to make a habit of reading and the learning continues. Teaching by incorporating the various issues and cultivate virtue. With good values and attributes desirable in all subjects. Encourage instructors to create the atmosphere. Learning environment and facilitate students' learning and learning. Also, we can use the research as part of the learning process. The instructor and the student may learn together from media sources for teaching and instruction types. Learning to take place anytime anywhere collaboration with parents and community members of all parties. To jointly develop the students' potential.

Article 25 The State shall promote the establishment, implementation and resources for lifelong learning in all its forms, including public libraries, museums, art galleries, botanical gardens, animal parks . Science and Technology Park Center for sports and recreation resources and other learning resources to adequately and efficiently Section 26 the State shall promote and encourage production. Development of academic books and textbooks printed materials, and other technologies to study the intensive development of the production capacity. Provide financial support for the production and is providing incentives to manufacturers and development of technology for education. Shall be open to free and fair competition by section 65 for the development of both the manufacturer and technology to study in order to have knowledge ability and production skills including the use of appropriate technology. Quality and efficiency of Section 66, a student is entitled to develop capabilities in the use of educational technology at the first opportunity to do so is to have sufficient knowledge and skills to use the technology. To education in the pursuit of knowledge through ongoing self Section 67 the State shall encourage research and development, production and development of educational technology including tracking. Monitor and evaluate the use of technology for education to achieve a cost-effective and appropriate to the learning process of the Thailand.

Basic Education Curriculum B.E. 2544 Career and Technology Department

Strand 1: to life and family.

Standard 1.1: Understand the creativity, skilled moral consciousness of energy resources and the environment. To work for their livelihood and families related to agriculture, home business and operative invention Standard 1.2: Workflow management skills to work as a group. Pursuits we can solve problems in the work. And have a good attitude towards work.

Tips 2: career

Standard 1.2: Understand the skills experience in the profession of faith, morality, good attitude to the job and the guidelines for the profession of faith.

Strand 3: Design and Technology.

Standard 3.1: Understand the nature and process of technology knowledge wisdom, imagination and systems thinking in design. Items used to create a strategic process technology can decide. Creative use of technology in the lives of the world's environmental, social, and professional.

Strand 4 : Information technology .

D Standard 4.1: Understand the value and uses of information technology in the search process , learning, communication , problem solving, working effectively and professionally effectiveness and morality.

Strand 5: Technology for Working Professionals.

Standard 5.1: Use technology to work to produce design solutions to create a profession of faith and understanding with strategic planning and creativity.

By creating computer-assisted instruction creating Web pages students in Grade 6 will be content with the third strand: Strand 4: Design and Technology: information technology, and strand 5: Technology for Working Professionals.

Knowledge of computer assisted instruction.

The definition of computer assisted instruction.

Type of computer -assisted instruction

The benefits of computer -assisted instruction

Limitations of computer -assisted instruction

The creation and development of computer -assisted instruction

Components within a computer -assisted instruction

Requirements in computer assisted instruction

Step in creating computer-assisted instruction

The process of creating computer-assisted instruction

Process of computer-assisted instruction

The definition of computer assisted instruction.

Computer -assisted instruction. Derived from the English word or abbreviation that computer Assisted Instruction CAI and the definition of computer assisted instruction to many of us as the Promotion of Teaching Science and Technology is defined as. Computer assisted instruction refers to a computer program to teach various subjects. The human subject and the teaching sequence stored in the computer used by the computer to help teach the students interact with each other. This will include taught computer programming to include, but not taught how to use a computer or computer knowhow. Computer is just one tool that teachers adopt a teaching and Yuen Poovarawan (1988 : 75-76) has noted that the computer is a computer program used to teach the course content and teaching methods in order save it. The computer will help bring the lessons prepared to offer a systematic form appropriate for each student and a firmament in Nopadon Nopsuwan (2001 Online) discussed whether computer-assisted instruction . Computer assisted instruction refers to teaching using computers as a medium by presenting lessons learned in order to arrange them as learners. And the students have the opportunity to interact with the lessons it offers via computer. This is consistent with Sutheruj Uppatham (2001 Online) noted that Computer assisted instruction refers to the teaching materials offered via computer media mix, such as text, images , graphics , animation, and sound to convey the content of the lesson. Which can interact and receive feedback instantly and Surasak Sebmonkhonlerd (2001 Online) said Computer assisted instruction refers to teaching media form computer technology, which has led to an intermediary to transfer knowledge from teacher to learner. This is consistent with Pradit Tipsombatboon (1995 : 11) has said . Computer assisted instruction refers to the introduction of the computer as a tool to create a computer program. This course includes a practice test may be text , graphics, sequential method including performances with the class immediately. Feedback (Interactive) between students with and holds Pilairat Shoowijit (2001 Online) has mentioned that computer-assisted instruction . Computer assisted instruction refers to the lessons created for use in self- study by learners through interaction with the computer and displays the students immediately.

Furthermore, the definition of domestic scholars and researchers , academics and researchers abroad have also provided the following definitions of computer assisted instruction .

A DEA 's (Sippl. 1981: 77 , according to Narisa Narasri 2001 : 23) , mentioned meaning that " Computer-assisted instruction refers to the application of computer systems which have been adopted to assist in the instruction of students. The application is an interactive process between the student and the computer. The students will be able to tell when the shortcomings of the error. This is consistent with Alessi and Trollip. 1985 (According to Narisa Narasri 2001 : 23), computer - assisted instruction. Teaching that contains the content providing guidance to the students. The learners have the opportunity to practice and evaluate the learning outcomes of the students using a computer to be able to do one or a combination of things.

The airport website. com (2005 Online), have the meaning that . Computer-assisted instruction (Computer Assisted Instruction) , or CAI as a medium of instruction the teaching process. The behavior in the form of multimedia (Multimedia) is sharing more than one species, such as text,

graphics, sound, animation. The key is the interaction between the learner and the computer evaluated to meet the learners quickly. It requires a 4 important factors which are referred to as 4-1 .

1 . Require substantive importance (Information)

2. Need to meet the individual differences (Individualized).

3. Require user interaction with the lessons (Interactive).

4 . Requires a reverse effect immediatly (Immediate Feedback)

And website of ChiangMai University (2005 Online) is defined as computer-assisted instruction (CAI: Computer Assisted Instruction) refers to a way of teaching the individual by virtue of the ability of the computer to provide the experience with relationship with different content , respectively to enable the students to learn the lessons of variations. Each lesson in the character animation and the graphic images in the style of hypermedia (Hypermedia) make the students enjoy learning. And students will be required to perform various activities such as answering questions sent by the monitor to create lessons to teach using the computer-assisted instruction. Concepts of the theory of a link between stimulus and response program design starts from stimuli to assess the response of the students' learning. Feedback and reinforcement for the students choose the next stimulus.

The meaning of the above the investigators concluded that the definition of computer assisted instruction. Computer assisted instruction refers to a computer program to help in teaching the lesson. This course is planned as a step to meet with students to review the exercises and evaluation.

Type of computer -assisted instruction

Computer -assisted instruction can be utilized in teaching different to the computer -assisted instruction. Be divided into several types according to its use, which featured several of the computers. Scholars have concluded that the type of computer -assisted instruction.

1. Solutions (Problem Solving) to focus on this type of computer training, thinking, decision rules are set to be considered by the learner. Points are awarded or weight to each of the criteria, such as math or science.

2. Simulation (Simulation) program of this type is a program that simulates a real-life situation of learners with different scenario. Students in the program can be changed or done to interact with, or an alternative to multiple variables. Way for students to be selected randomly to study the consequences of those choices. It also helps students understand and see the image in some lessons. However, many students were not able to see the actual movement of the bearing. Travel light and refraction of electromagnetic waves. Or chemical phenomena including biologists take several days to appear, these problems can use computer simulations to study the practical and easy to understand.

3. Specific individual learners (Tutoring) are program created in the lesson program. Teaching a class is said to have an introduction (Introduction) and are described (Explanation) which included theory. Description of rules and concepts to be taught after students has studied and will have questions to

check the understanding of the various terms. The lessons back to the original display. Or skip lessons to students already know. It also may be that the actions of the students and how the teacher not only has the knowledge to the students some.

4. Coaching and practice (Drill and Practice) are training and practice, most teachers take extra lessons on the go. And provide students with a computer lab for students to measure the degree or training to an acceptable level. This lesson is filled with questions, answers and feedback and reinforcement to allow students to practice and practice which may be aligned movement. Or it may also be competitive as a timer or create a frenzy of noise and so on.

5. Dialogue (Dialogue) mimics the classroom teaching. That is, try to keep the discussion between teachers and students rather than using only audio. It is a character on the screen, then there is a problem with the teaching characteristics of the study in the questionnaire, it is one such solution chemistry lesson.

6. Inquiries (Inquiry) instructors will gather programming content (Software) using the computer as a medium. How will the issue or how to solve a problem (Problem Solving) is entered into the computer. And the computer will give you the answer. The classes will be conducted as such until the student is able to solve a problem or understand the problem.

7. Demonstration (Demonstration) demonstrated, using a computer is similar to the teacher's demonstration but the demonstration by the computer is more interesting because computers throughout the entire curve is beautiful color and sound. Teachers can use computers to demonstrate, like the orbits of planets in the solar system the circulation of the blood the balance equation.

8. Playing Games (Gaming) Computer games are used to teaching it. It is used to inspire the students as well. This program is a special type of simulation. The event of a crash, which can be played by one or many students. Points are awarded a win.

9. Testing (Testing) using computer -assisted instruction. Often need integration testing with the achievement of learners. The study takes into account such as to create a test management exam grading analysis test creating tests and provide teachers randomly selected questions.

The benefits of computer -assisted instruction

In general, there are many benefits in addition to computer processing. Preparation of documents and computers in schools has led to extensive use, especially to help teach. Despite the introduction of computer assisted instruction to be selected to suit the learning objectives and the use of computers coupled with the direction of the teacher closely. This can give you a real advantage has conducted research on the benefits of computer-assisted instruction computer-assisted instruction that benefits students in many respects is the conclusion.

1. Encourage learners to individuality

2. Feedback (Feedback) immediately gives the students the excitement is boredom.

3. The students could not answer before thus forcing the students to learn it before passing it to the lesson.

4. Learners can review the lessons learned in the classroom.

 5 students learn better and faster than regular teaching . Reduce wastage of time.

Learners down.

6. Available to evaluate the progress of students automatically.

7. Learners have learned active Learning.

8. Train the students to think rationally. It must solve problem all the time.

9. Learners can learn by themselves alone.

10. Allow precision light classes.

11. Helps students retain learning longer.

12. To create specifically responsibility in the study. It does not force students to learn but reinforcement appropriately.

13. The specific performance criteria.

14. The students will learn step increments from easy to difficult.

15. The students ' attitude towards school subjects.

It is beneficial to students in general. Learning with computers in the classroom can help teach effectively. The benefits in terms of teaching and learning, including computer .

1. Computing enables children to learn individually (Computer can Individualize) that children can study individually. To the needs of each child , which is consistent with the differences between individuals , whether mild , moderate or good students will study appropriate to their ability and their needs.

2. Computing can offer teaching (Computer can Manage Instruction) to teach computer can manage very well. It aims to teach the computer to analyze the test results, progress of students over time. Store information which can be called upon when needed. And report results quickly and not waste time. The reports can be done individually. Teachers do not have the author's name to all students. But you can use a third party's computer. And the teacher would have time to think and teach the good results continue.

3. Computer can teach (Computer can teach Concepts) concept and teaching skills are difficult to learn from teachers or textbooks, computer simulation will help students learn more easily. And better than learning from a teacher.

4. Computing can be calculated (Computer can Perform Calculation) computer is a tool that has the ability to calculate quickly efficiency and effectiveness. Therefore, computer-assisted instruction in

mathematics, the students quickly and accurate, so there is time left to study various computer as much .

5. Computing can create incentives for students to learn (Computer can Simulation Student Learning) because the computer can make a color picture or graph. As well as a computer game, the students are motivated to learn to use the computer or compete against the computer.

Based on the foregoing, the research suggests that computer-assisted instruction to benefit student learning. I have seen a dramatic and tangible benefits for teachers - Teachers Hall (Hall. 1982: 362) discusses the benefits of computer-assisted instruction for the teachers as follows .

1. Reduce hours of instruction to improve teaching.

2. Reduce time to interact with the students.

3. The study of texts, research and development capabilities and more.

4. Assist teaching in classes for people with good teaching by the transition from classroom training to computer system instead.

5. Provide opportunities for creativity and innovation for curriculum and educational materials.

6. Additional courses taught by computer-assisted instruction to meet the needs of students.

7. Help develop academic.

8. Allow time for review and development of curriculum theory.

9. Enhances the purpose of teaching, such as practical as it is musical. Exhibition graphics help solve the problems of learning about architecture.

Of the benefits of computers mentioned above. The researchers concluded that the benefits of computer-assisted instruction as are to attract the attention of the students in the lesson. They built a concrete lesson. Make the students understand the principles and content clearly makes learning less time responding to stimulus reinforcement learning inquisitive learners can take several trips to the ability of learners. Quiz challenge to want to learn and make the learning fun and pleasure in learning. Resolves differences between individuals and the teachers will have more free time to study new knowledge including the preparation and development of teaching materials to teach better.

Limitations of computer -assisted instruction

Computer assisted instruction has been interested in adoption in teaching and learning. One goal is to meet the individual differences which look like a slide. The use of multimedia elements appropriate. Lessons are built efficiently and effective learning and awareness of the students. But anyway there are some limitations to the use of computer-aided teaching purposes as well. In addition to the problems mentioned above, the use of computer-assisted instruction could not accomplish it. If teaching lacks a good lesson create simulation ambiguous. Moreover, the characters convey the lessons should look like (Bupachart Taihikorn 1996 : 110-111) is clearly meaningful . The character is the menu for the trip using the characters on the screen for interaction. Content should

not be read from the computer should be used when the content exceeds the window screen. Create lively and animated characters.

This can be seen as a limitation in the use of computer is the most difficult must consult with the knowledge of computer. Computer or user must study it as well, you can remedy the situation might be achieved by always.

The creation and development of computer -assisted instruction

Initially the computer is difficult. It requires a dedicated computer field. And form of presentation has limitations such as audio, video, etc., but the current use of computer technology to use. Instructors can create their own features to establish a framework for the more interesting. Activities that generate learning for the students to see and understand clearly fast because there are programs that help create lesson effective programs such as Authorware, Diretor and Toolbook , etc. In this research, the researcher will use the Authorware and programs. Flash in creating computer-assisted instruction. The approach to computer aided instruction follows the aims of the lesson. Documents and equipment needed to brainstorm different sources. Summarize the lessons for their own. Produce a crisp image to the paper flowchart of the lesson. Take a lesson and evaluate the effectiveness of the lesson.

Components of computer assisted instruction.

1 . Heading (Title)

1.1 Course Code Course title room

1.2 Name of the agency works

1.3 channel username

1.4 instructions (optional)

1.5 Learning Objective

1.6 Main Menu.

1.7 prior to testing

1.8 story or content

1.9 Test class.

1.10 on the lessons .

2 . Featuring (Content)

2.1 Message (Text).

2.2 slides (still picture).

2.3 animation (animation picture).

2.4 Movie (movie).

2.5 audio (sound)

2.6 Exercise

2.7 Helper such as calculators, formulas , etc.

3. Quizzes before class - after school. (Pretest-Posttest)

3.1 The test instructions or orders.

3.2 test.

3.3 processor rating

3.4 judging scores

Requirements in computer assisted instruction.

1 . Font color should have no more than three colors

1.1 The general character.

1.2 Color as hypertext.

1.3 The font color as a highlighter.

1.4 Subject may use large fonts Font color as Guest.

1.5 font colors should contrast with the background color to see clearly.

1.6 font size in moderation and the same size

2. Background color, gradient or image may be a similar color. (Dense or sparse) if a different font color to the same color it should be the same for both.

3. The controls should be the same as now

4. Avoid using the slider (Scrollbar).

5. Avoid things that make a wrong interpretation

6. Avoid things that make a wrong interpretation

7. Character feedback (Feedback) should not be a negative or blame.

8. Respondents should have the correct training to encourage feedback

9. Buttons control applications need easy access to change the menu or change it

10. Tests should provide an opportunity for the candidates to do either

11. Tests should provide an opportunity to review or change the new trace long time exists.

12. Recorded score (optional)

Step in creating computer-assisted instruction (CAI)

1. Study course. Course Description and documentation of teaching.

2. Define the purpose of learning and knowledge content designed to make computer-assisted instruction.

3. Bring it to experts to monitor. If the defect is corrected then take it to an expert for review

4. Bring the design to create a computer-assisted instruction. And provide instruction in the use of computer -assisted instruction.

5. Bring completed CAI to expert to check

6 . Modify CAI on the advice of experts.

7. Bring CAI to trial 1

8 . Bring CAI improved to trial 2
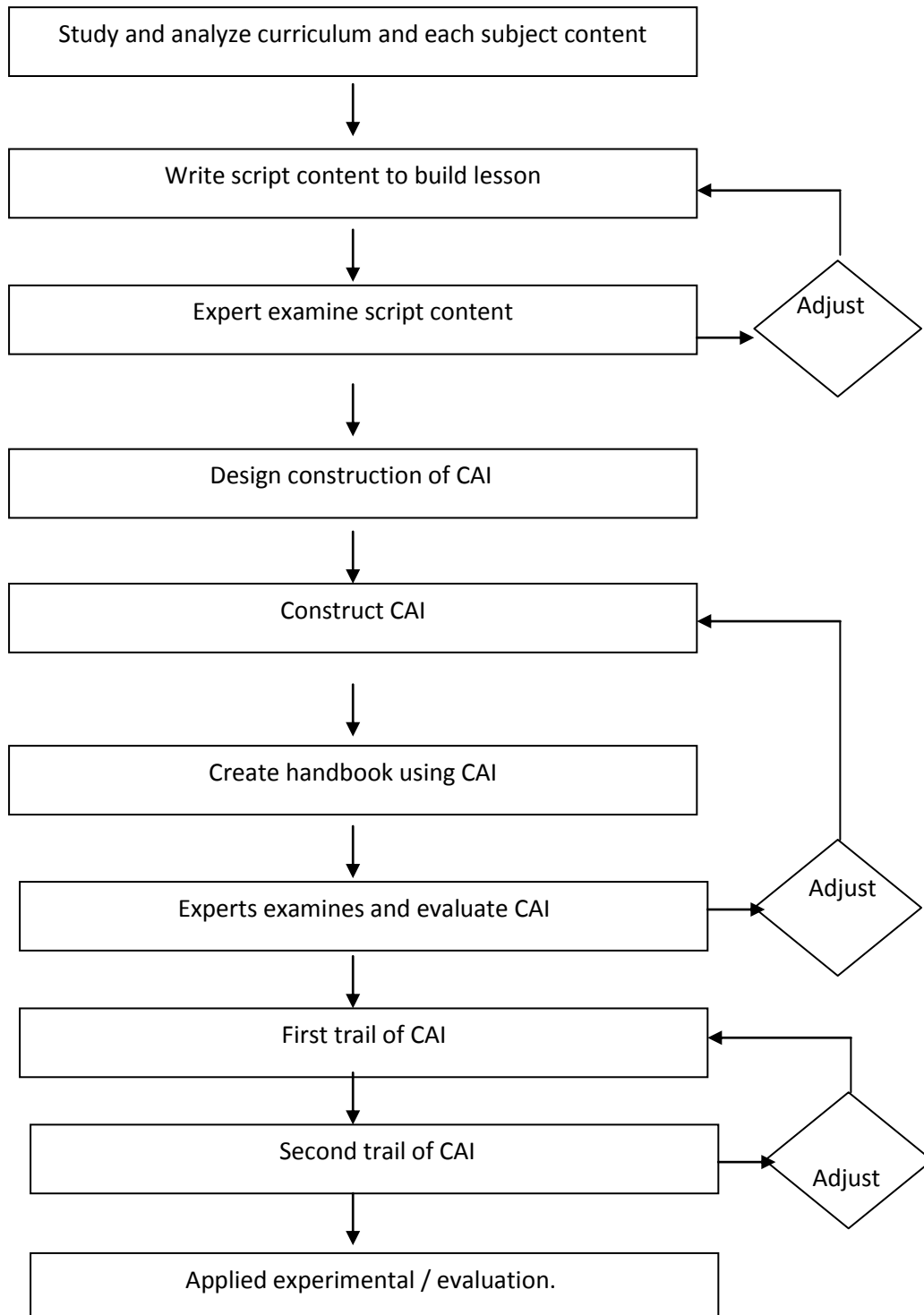
9 . Bring adjusted CAI to actual trial with samples.

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┌─────────────────────────────────────────────────┐
│  Study and analyze curriculum and each subject content │
└─────────────────────────────────────────────────┘
                        │
                        ▼
┌─────────────────────────────────────────────────┐
│         Write script content to build lesson          │ ◄──────┐
└─────────────────────────────────────────────────┘        │
                        │                                   │
                        ▼                                   │
┌─────────────────────────────────────────────────┐      ◇ Adjust
│            Expert examine script content              │ ───►  ◇
└─────────────────────────────────────────────────┘
                        │
                        ▼
┌─────────────────────────────────────────────────┐
│              Design construction of CAI               │
└─────────────────────────────────────────────────┘
                        │
                        ▼
┌─────────────────────────────────────────────────┐
│                   Construct CAI                       │ ◄──────┐
└─────────────────────────────────────────────────┘        │
                        │                                   │
                        ▼                                   │
┌─────────────────────────────────────────────────┐        │
│              Create handbook using CAI                │        │
└─────────────────────────────────────────────────┘        │
                        │                                   │
                        ▼                                   │
┌─────────────────────────────────────────────────┐      ◇ Adjust
│          Experts examines and evaluate CAI            │ ───►  ◇
└─────────────────────────────────────────────────┘
                        │
                        ▼
┌─────────────────────────────────────────────────┐
│                  First trail of CAI                   │ ◄──────┐
└─────────────────────────────────────────────────┘        │
                        │                                   │
                        ▼                                   │
┌─────────────────────────────────────────────────┐      ◇ Adjust
│                 Second trail of CAI                   │ ───►  ◇
└─────────────────────────────────────────────────┘
                        │
                        ▼
┌─────────────────────────────────────────────────┐
│          Applied experimental / evaluation.          │
└─────────────────────────────────────────────────┘
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Figure 1 shows the process of creating computer-assisted instruction.

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┌─────────────────────────────┐
│      Put into the lessons.      │
└─────────────────────────────┘
              │
              ▼
┌─────────────────────────────┐
│    Notify objective of learning  │
└─────────────────────────────┘
              │
              ▼
┌─────────────────────────────┐
│       Show Lesson content.      │
└─────────────────────────────┘
```

Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit6
Sample	Sample	Sample	Sample	Sample	Sample
Exercise	Exercise	Exercise	Exercise	Exercise	Exercise

```
┌─────────────────────────────┐
│          Posttest.          │
└─────────────────────────────┘
```
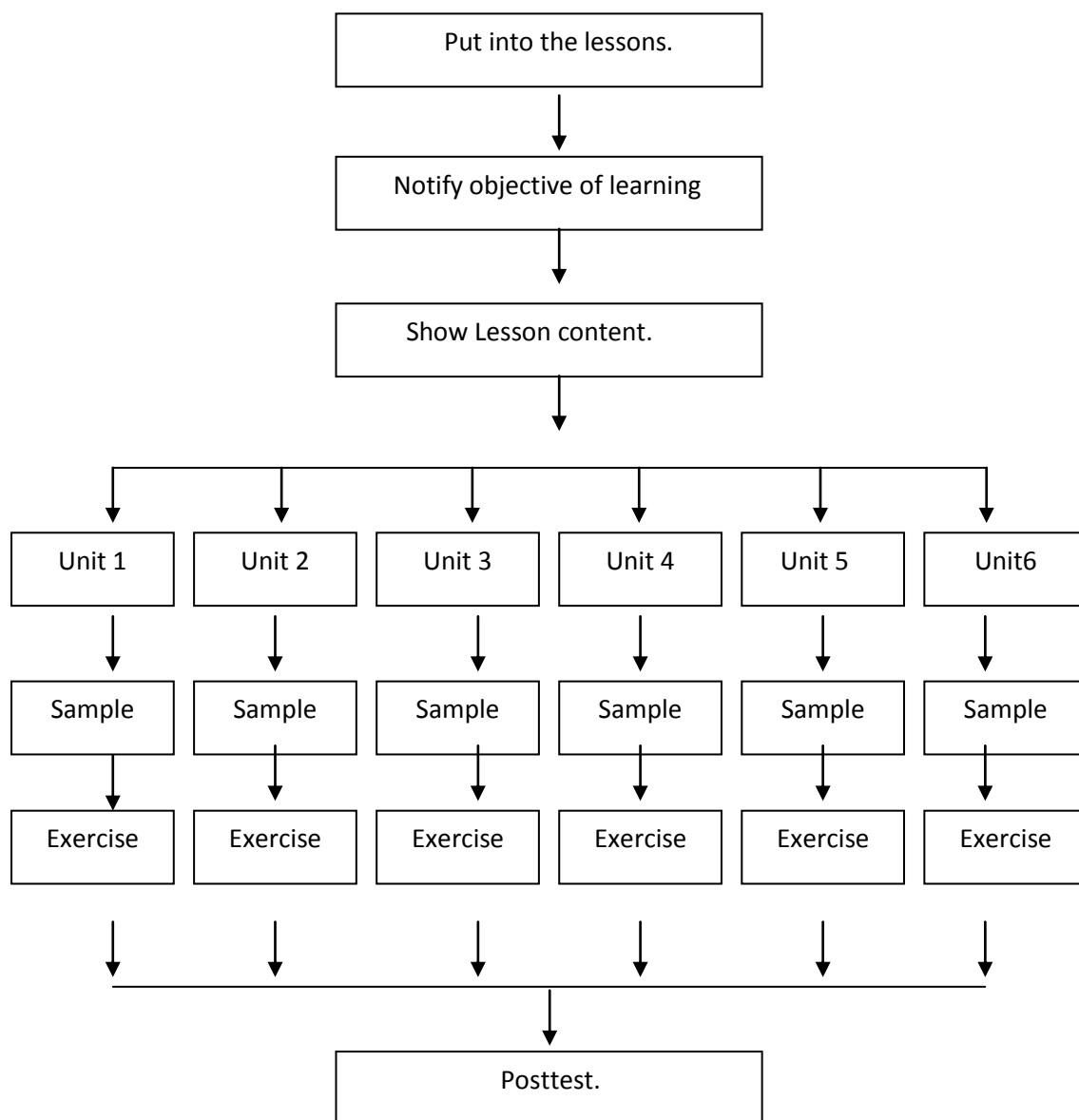
Figure 2 shows the process of computer-assisted instruction.

Knowledge about the application is used.

1. Program for creating computer-assisted instruction.

2 . Program for teaching Web page.

Program for a computer-assisted instruction.

Program is used to create a computer-assisted instruction. There are a variety of programs such as CU CAI, the CAI EZ Tools, programs Toolbook and Authorware which the research program that creates computer-assisted instruction in current use. The programs used to produce a program , but a program that is easy to use Authorware and popular . The current price of the computer is down. Instructors can create computer-assisted instruction easily can be designed to interact with the

students. As a result, learner can learn according to their ability. This will cause teachers to be more effective. Which here is the only program Authorware as it is the researcher in this research program Authorware is a program Authoring System Development Application applications with the ability to interact with a particular user program teaching with computer training . Including the ability of multimedia to develop multimedia applications have well developed Authorware to contact the user with a technique called Objected Interface, a symbol (Icon) a statement by each symbol that is an object of this object be qualified and capable of complex tasks. Make use of Authorware is comfortable to whether the Application for submission to the Authorware Interactive will include the ability to use variables and functions to the user completely. Application easily create simple and highly effective. To collect the pictures, sound, Digital Video , and animation into Application created easily with Media Manager System can be used in the Library separate different from the Application to Application for Library together to reduce the size of the data file the application Library can be used in computer networking . Makes multiple computers can share a good It can also create a Model for convenient and easy application development in Authorware (Surapa Roddej   1999 : 24-25) .

Teaching program for creating web pages

The program used to design and build Web pages has many applications such as Dreamweaver, FrontPage program and program Namo WebEditor , etc. In this research , the researcher has chosen to use Namo WebEditor why the researchers chose to use Namo Webditor teaching in a Web page. Because this program helps to design and build Web pages that are easy to use. Features and scripts to create web pages for many interesting applications Namo WebEditor is featured below .

1 . The application that created the document in the Web HTML Generator

2 . Similar work like printing documents with Word Processor

3 . Program generates HTML code automatically.

4 . Program is easy to use and pleasant to use.

5 . Features and scripts for Web pages have many features and scripts

In this research, the researcher will use the Authorware and Flash applications for the design and construction of computer-assisted instruction creating Web pages. The lesson is about creating Web pages using Namo WebEditor .

Psychological theory of learning

1 . Learning theory of Gagne

2 . Theoretical study of Skinner

3 . Learning theory of Bandura

Learning theory of Crow Agency (Gagne)

Psychological theories of learning and development lessons of Bossier City . The media's role in all stages of the situation or the process of teaching. Media stimuli are the intention of the learner

urged students to remember what counseling assistance to students. And feedback process, which consists of nine (Thanormporn Laohajarusang 1998 : 41-43) as follows .

1. Attract attention (Gain Attention) will stimulate the interest of the students.

2. Said purpose (Define Objective) to enable the students to know the overall goal of things.

3. Reviewing prior knowledge (Activate Prior-knowledge) stimulate recall of knowledge is linked to the old knowledge with new knowledge.

4. Proposal of new content (Present Information) allows recognition to be effective.

5. Learning guidance (Guide Learning) to help the students to think critically to find or discover their own ideas or new content.

6. Impulse response (Elicit Responses) provokes a response from the students.

7. Provide feedback (Provide Feedback) is one in which reinforcement learning in male students.

8. Testing (Assess Performance) is an estimate that students are learning as a goal or not? How?

9. Enabling learners to learn. And transfer of learning (Promote Retention and Transfer) is something that will help students with retention of knowledge any knowledge.

 Theory of Skinner

Skinner 's principle is to reward every time. Resulted lesson or lessons and a training program (Teaching Machine) , which focuses on the students learning . The correct answer is provided. The content is divided into smaller chunks priority to rationality from easy to difficult. Students will learn to accomplish alone on each floor and will receive immediate reinforcement (Arena League paragon 2534 : 118) .

Rules of Skinner's reinforcement of two significant aspects

1. Reinforcement schedule as time and behavior that occur in each phase is the reinforcement schedule.

2. Response rates resulting from different reinforced. Which occur more or less permanent, and only depends on the reinforcement schedule (Krishnaman Wattananarong 1993 : 163) .

Psychology and learning theory to create a computer-assisted instruction Skinner is an important component in creating computer-assisted instruction. The law of reinforcement in the form of Skinner affects the learning of our students very seriously. Reinforcement, especially when the student has complied with the conditions we have set out. This will make the students aware of their progress on each step that must be done well or improved in any part of it.

B

P ⟷ E
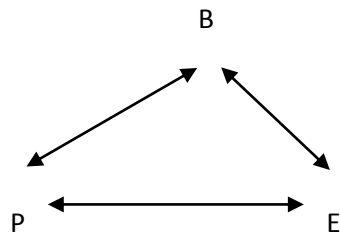
B = One person's behavior.

P = Person

E = Environment

Figure 3 shows the interaction between organism and environment.

Bandura concluded the three types of human behavior.

1. Behavioral response from the school which person express or action regularly.

2. Behavior learning but not expression or action.

3. Behavior had no expression of the action never really learned.

Bandura said learning by imitation, there two steps the first step to get to learn (Acqudura) to display behavior. The second step is called the action (Performance) to display the following behaviors.

Stimuli Input	Person	Reaction behavior

Step 1   Step 2

Learning   Action
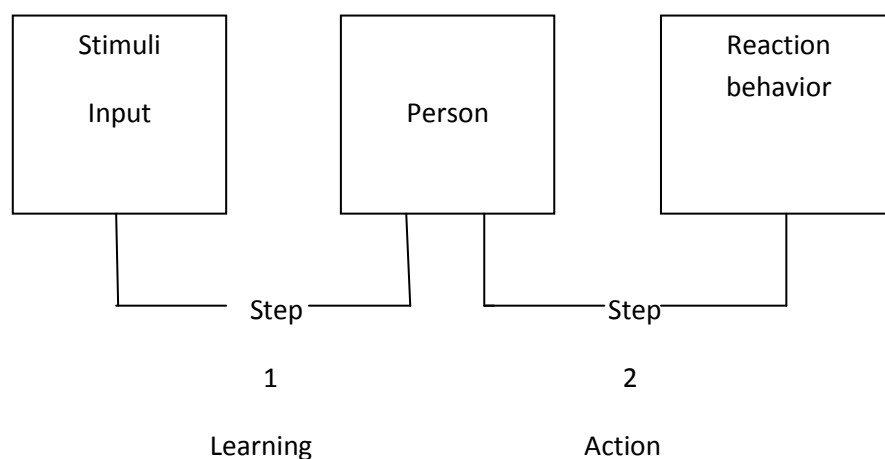
Figure 4 shows the process of learning by imitation.

The recognition sequence consists of three major components, as the following diagram.

Model
Input

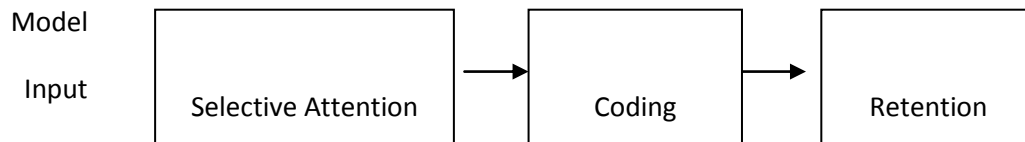| Selective Attention | → | Coding | → | Retention |

Figure 5 shows the components of the learning process and learning.

The learning process Cognitive processes (Cognitive Processes) for the action. (Performance) depends on the student.

Bandura has described the process of learning by observing and imitating the whole process 4 is attention (Attention) recognition process (Retention) show the same behavior as an example (Reproduction) and the motivation (Motivation).

| Attention | → | Retention | → | Reproduction | → | Motivation |
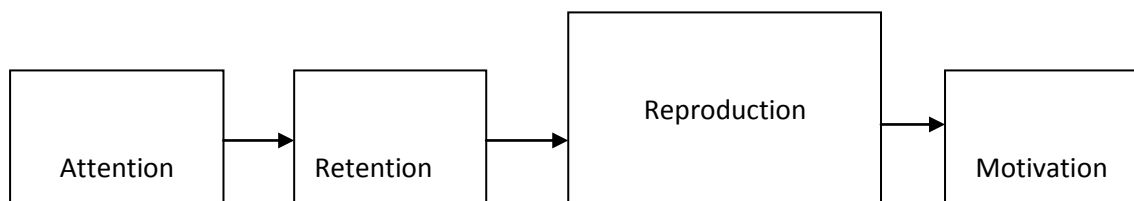
Figure 6 shows the process of learning by observation.

General principles of teaching using social learning theory of Bandura .

1. Indicator aims to show the student behavior. Or write a behavioral objective.

2. Shows an example of the many examples that could be a cartoon or a TV or video publications.

3. Provide answers along with a preview of each.

4. Guiding the learning process, as suggested by the observation that students should pay attention to the stimuli or attention.

5. Arrange a time for students to have the opportunity to emulate correctly to give students the motivation to learn, and as an example to students.

Psychology and learning theory create a computer-assisted instruction. There are many theories, depending on the type of learning with computer-assisted instruction. The learning theory of Crow

Agency will be able to observe the behavior of some aspects of the show. This change is caused by the human experience of learning situations in a certain period. These will sort of learning to be a first. Reinforced by the rule of Skinner affect the learning of our students very seriously. Reinforcement, especially when the students have followed the instructions that we have set out the conditions which will make the students aware of their own development as well as in each stage. And social learning theory of Bandura emphasizes the importance of the cause of learning behavior and behavioral responses. Behavioral imitation and can be controlled at the time by the students themselves. And design of computer-assisted instruction in this research study is to learn the concepts, theories combine. To suit the nature and structure of knowledge and skills in the subject in the CAI built.

General Analysis

Research in the country and abroad

With both domestic and foreign scholars have studied the research and development of computer assisted instruction to bring many disciplines and continuously. It can be seen from the results of studies and research as will be discussed below.

Research in the country

Kopsak Manasakhon (2000 Abstracts) that compared student achievement in mathematics . The probability of an initial one -year vocational students compared to students using computer-assisted instruction on how to teach regular The achievement of students taught using CAI higher than students taught by the teaching methods are statistically significant at the .05 level.

Noppadon Nobsuwan (2001 Abstract) conducted research on the development of computer-assisted instruction the use and maintenance of the projector. For health research shows that Average of the test after studying all three units have average total 21.55 by the average test every unit on the percentage of 86.21 compared average test criteria 80 were higher than the threshold defined are statistically significant at the .01 level, which is based on the assumption that every unit is set that is average of the test after school. The respondents were then on a percentage. Not less than 80 test after studying each of the respondents are either 3 units up. In the range of 80 to 96 percent of the respondents were not significantly different from 34 and 80 percent higher than the 80 percent that is statistically significant at the .05 level of 10 and above 80 percent, respectively. Statistically significant at the .01 level of 3, this is based on the assumption that it is. Test after studying each of the respondents were not less than 80 percent.

Juthamas Chanyapichet (2001 Abstracts) have done research on the development of computer-assisted teaching of English vocabulary for students. The findings show that computer-assisted teaching of English vocabulary. For the fifth grade students at the efficiency criteria set 88.91/88.12, which was higher than the standard 80 /80, and the opinions of students on computer-assisted instruction. Overall, the most appropriate level.

Sutherut Uppatham(2001 Abstracts) has done research on the development of computer-assisted instruction and mathematics achievement . The parabola for students at three research shows that

CAI mathematics is parabolic. Multimedia systems in an efficient 87.20/89.50 students using CAI achievement in mathematics subject the parabola. Higher pre statistically significant at the .01 level student learning through computer-assisted instruction in mathematics achievement than students taught by the parabolic method of teaching the level of statistical significance 0.01 .

Surasak Sepmongkhollerd (2001 Abstracts) have done research on the creation of computer-assisted instruction in mathematics 6th grade index number. The findings show that computer-assisted instruction, the researchers created a media mix that includes images , video and audio lectures, music and slide multi- vision for teaching 3 periods of 50 minutes, the performance of computer assisted instruction the efficiency 92.0/91.56 higher than the standard required by the assumption that the 80/80 .

Bumroong Pichayanon (2001 Abstracts) have done research on the creation of computer-assisted instruction on the use of the language Pascal. Curriculum Diploma Education Department of Curriculum 1993. The results show that Computer-assisted instruction on the use of the Pascal program by the Department of Vocational Education Act 2537 effective 84.00/80.00 above and in accordance with the assumptions set.

Pilairat Chuvijit (2001 Abstracts) have done research on the creation of a lesson about the overlapping branches . In the form of computer assisted instruction. The results show that A lesson about the overlapping branches. In the form of computer assisted instruction consists of three units of study follows the definition and characteristics of nested queries. Types of nested queries. The advantage of the overlap. Each unit has exercises at a unit at 10 and had Achievement Test Learning to superposition of 20 items lesson on a branch on the stack in the form of computer-aided teaching tools were effective 82.33. / 81.50, which is higher than the standard 80/80

Nantana Suvarnabha (2001 Abstracts) have done research on a multimedia production subject of knowledge of computer basics. Grade 2 findings show that Created a powerful multimedia suite , which will help students achieve the learning objectives.

Wiphot Petcharat (2002 Abstracts) have done research on the creation of computer-assisted instruction in the microprocessor. Bachelor of Arts (3-year B.Ed.) course electric field technology industry Industrial technology programs. Faculty of Technology Phra Nakhon Rajabhat Institutes research results show that CAI 87.30/84.10 and created an effective achievement with CAI posttest than pretest statistically significant at the .05 level.

Darunee Kitsuwan (2002 Abstracts) have done research on the development of computer-assisted instruction on the Internet for WBI KMTTNB online network structure information . Diploma level. Rajamangala Institute of Technology the results showed that the CAI built 85.25/85.01 and effective achievement after high school lesson statistically significant 0.01 per lesson and the students on track to a great extent.

 Worawut Mansukphol (2002. Abstracts) have done research on the development of web-based computer courses to study. The results show that Efficiency of 82.40/84.44 and a lesson on the achievement of the lesson through the high school after school higher than before.

Mayura Poadee (2002 Abstracts) has done research on the production of computer-assisted instruction subject Networking . Students at four -year results of this research show that CAI made effective by the average of the exam after learning that the learner is 64.07 percent.

Phumarin Sanchayasuriya (2003 Abstracts) has done research on the production of computer-assisted instruction on a computer network for high school students. The findings show that computer-assisted instruction on the network performance is equal to 91.58 , and the students are very computer-assisted instruction .

Kanokpetch Phusridawn(2003 Abstracts) have done research on the production of computer assisted instruction system of computer hardware for students in junior high school. The findings show that computer-assisted instruction subject computer hardware systems for use in teaching computer and information technology infrastructure. Efficiency equal to 90.08 and students opinions toward CAI were very satisfactory.

Phayongsri Homsuwan (2003 Abstracts) has done research on computer-assisted teaching remedial English reading skills . Of students grade five school University of Suphan Buri . The results show that the samples studied by CAI the achievement after learning than before learning and student satisfaction levels.

Narai Phujomkdao(2003 Abstracts) have done research on the production of computer-assisted instruction . The Herbal Health Education for students at two findings show that CAI produced efficiently. This is evident from the test scores of academic achievement that students achieved 85.48 percent and takes less than 50 minutes of study a student is feedback consistency at the highest level.

Rabeib Newyawong (2004: 44-46) has done research on the development of an intelligent computer-assisted instruction Internet network is " linear " in the Rajabhat Institute . The findings appear to be as effective as WICAI 83.64/81.89 overall academic achievement of the students learning by a combination of higher than normal classes. Achievement between the two groups also did not differ Achievement in low ability groups. Found by a combination of academic achievement. Group learning and group learning with WICIA normal difference is statistically significant at the .05 level of achievement by a combination of group learning. Higher than that of normal classes. WICAI group was learning with higher than normal classes. But the group studied by a combination of group classes with WICAI no different. Achievement in the medium and higher academic achievement found between the groups with a mix of classes and group learning with WICAI normally have no different.

Conclusion of the research in the country

From the above data, the researchers could not conclude that the academic achievement of students in relation to learning and teaching. The notice of the achievement of students using computer-assisted instruction with diverse disciplines such as mathematics, computer languages, Thailand or even on public health. The results of the research showed that the achievement of the students better to learn normally or at least an achievement that cannot vary.

Researches abroad

Kumar. Patrica Anne(1994: 158) has conducted research on the use of computer assisted instruction and training exercises in mathematics . The student is enrolled in a special class with a sample of 15 students were divided into two groups: the experimental group using a computer -assisted instruction. Control group using a computer -assisted instruction in training and exercises. Both groups were tested both before and after learning in a period of 5 weeks, the researchers found. Experimental group score was higher than the control group scores.

Fredenberg.(1994.) Studied comparing learning calculus and analytic geometry using Computer-assisted instruction in teaching as usual used the sample of students of the University of Montana. USA Experimental group learned calculus and analytic geometry. Help with the computer in the laboratory. In the control group to study normal and is home to enhance learning. The study concluded that the two groups had no difference in the achievement of statistical significance. However, both groups had high levels of achievement in practically the same.

Joan Burton Janice Lim (2002 online) studied the development and evaluation of a computer assisted instruction for adult education in the university. Content was part of the distance learning process through research and development. The sample consisted of students from the Faculty of Education Year 3 results could be confirmed. Form of computer-assisted instruction is appropriate theoretical study of adult education.

Conclusion of research abroad

From the above data it is evident that learners with CAI would have scored higher than the regular classes or at least a score that was not significantly different. And the theoretical study of adult education.

The concept used in this research

Of research in the country and abroad on the use of computer-assisted instruction can be seen that the academic achievement of students learning from CAI to higher classes as normal , or at least effective achievement is no different . It was shown that computer-assisted instruction can be used in teaching and learning to achieve the purpose of the study. Researcher has to study and research related to the idea used as a guideline to create CAI Creating Web pages 6 for students and lesson design techniques and teaching methods by taking into account the concept of Bossier City. Terms of the theory of Skinner and the social learning theory of Bandura . Authorware and applications using Flash to develop lessons to meet the educational reform as outlined in the Education Act 2542 , the teaching emphasis on learner -centered.

Research problems

The Construction of Computer Assisted Instruction on a Web page. For the grade six students in this study the following problem.

1. What computer assisted instruction for creating Web pages for students in Grade 6 look like ?

2. CAI creating Web pages. For students of Grade 6 whether to learn and efficient to level 80/80 or not ?

3 . Students will have satisfied the CAI creating Web pages for high school students Grade 6 level or not ?

The purpose of the research

1 . Design and Construction of Computer Assisted Instruction on a Web page for students grade 6 .

2 . To evaluate the effectiveness of computer-assisted instruction on the web for students grade 6.

3. To measure the satisfaction of the students about the creation of computer-assisted instruction Web pages for students grade 6.

The scope of the research

This research is experimental research. To create a computer-assisted instruction on creating Web pages. For students in Grade 6, the scope and content of the study variables as follows

1. The creation and development of the CAI this as the content of the web page. The course web page. Group of career and technology packed into the computer using the program Authorware and Flash software to create lessons.

2. Samples Including students at of 45 , which is derived from a random sampling of all students enrolled in courses for creating Web pages .

3. Variables studied are as follows.

3.1 The variables include computer-assisted instruction on creating a web page for students grade 6.

3.2 The dependent variable.

3.2.1 The effectiveness of computer-assisted instruction on the web for students grade 6.

3.2.2 Satisfaction of students with computer-assisted instruction on creating Web pages. Students grade 6.

4. Laboratories, 2 middle school computer lab using the "public development ", which is the network that are in the same workgroup by students to one computer per one unit.

5. Many lessons to learn lessons take 10 lessons of 50 minutes.

Definition

CAI refers to a lesson on creating Web pages that were created using Author ware and Flash applications created by the course content and sequence of the course web page 2 for students grade 6 to save it . Computer enable the students to use the computer as a tool for learning. And the computer interact with the students themselves.

Effectiveness of computer-assisted instruction refers to the quality of computer-assisted instruction. The students learn the skills and the purpose of learning the basics set is 80/ 80

The first 80 is the efficiency of the process (E1) is given by the average percentage of the students in the CAI exercises correctly.

The latter 80 is the result of (E2) is given by the percentage of average student achievement test correctly.

The achievement means that the researchers created a tool to measure the learning ability of students to create web pages with computer-assisted instruction.

Mean achievement means scores of students achieved test achievement after studying the course content of computer-assisted instruction.

Satisfaction refers to the positive feelings of the students are happy to learn using computer-assisted instruction when the success and rewards of learning are encouraged commitment and enthusiasm for learning.

Web page to is a text file in the form of Hyper Text Markup Language (HTML) , which can be linked to other files and web pages . Where data files are stored on web servers (Web Server) and can access the data with the other computer linked to a web service. Via the Internet or LAN network (LAN).

Hypothesis

 1. Assisted instruction for creating Web pages for students in Grade 6 has performance criteria of 80/ 80

 2. Learning using computer-assisted instruction on creating Web pages for high school students to Grade 6 students has an average satisfaction level.

Conceptual Frame work
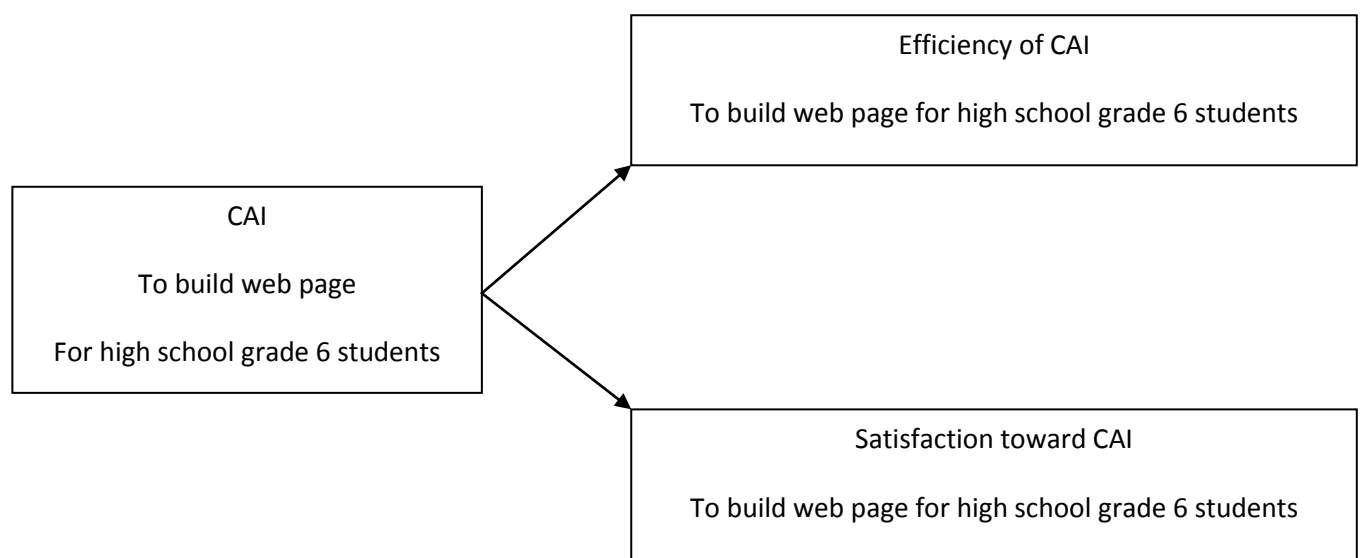
Current analysis and information

Research on the development of computer-assisted instruction Creating Web pages for High school grade 6 students was conducted by the following research methodology.

1. Populations and samples.

2. Instruments used in research.

3. Research design .

4. Research operation

5. Collecting data.

6. Statistics used for data analysis.

Population

The population for this study are high school students Grade 6 academic year 2013 who are studying web page creation 2nd semester school "Prachapat" Territorial Office of Educational Service Area Zone 2 .

Sample

The sample used in the experiment using computer-assisted instruction. Include students in grade 4/6 of 45 people attended the second semester of academic year 2013

Research design

This research is experimental research. By students to experiment with the 6/4 School Pracharat of 45 people and the experiment One Group Posttest Only Design as follows .

$$\begin{array}{cc} \hline X & O \\ \hline \end{array}$$

By   X is the CAI Creating Web pages for students in Grade 6.

             O is a study achievement.

Tools used in the research

1. CAI Creating Web pages for students Grade 6.

2. Achievement test subject for creating Web pages . Course web page 40 items .

3. Measure of student satisfaction with the CAI of 20 items by scoring in the five levels

Score 1 means the least satisfied.

Score 2 means there is less satisfaction.

Score 3 indicates moderate satisfaction.

Score 4 means very satisfied.

Score 5 means highest satisfied.

A tool used in the research.

Creation and effectiveness of computer-assisted instruction

1. Study course. Course Description and documentation of courses for creating Web pages. And documents related to the study of computer -assisted instruction.

2. Defined learning objectives and content design knowledge to create a Web page that is used to build computer-assisted instruction.

3. Advisory Committee for consideration and recommendation to rectify .

4. Bring it to the experts to consider and monitor. If the defect is corrected then take it to an expert for review.

5. Bring the design to create a computer-assisted instruction and prepared using Authorware Manual CAI .

6. Bring CAI built to provide expert review and assess the consistency of the methods in order of presentation. Interaction between the learner and the CAI .

7. Modify and adjust CAI on the advice of experts.

8. Bring CAI monitored by experts and updated it to the Advisory Committee to check the accuracy. Then I try to create a web page for students to learn academic. These students are not a sample of five students and bring the results to determine the effectiveness of computer-assisted instruction and improve defects.

9. Bring CAI improved student academic to try to create a Web page. This is not the first time the experimental group and samples. But with the same sample for another 10 people and then bring the results to determine the effectiveness of computer-assisted instruction and improve fault again.

10. The CAI improved trial is tested with sample at random sample of 44 , then take the results to the effectiveness of computer-assisted instruction , to check whether the researcher created a performance criterion of 80 / 80 or not.

Teaching experiment with CAI

The experimental teaching with CAI . Trial in two school computer lab " Prachapat" school , which is a computer lab with the same network . The procedure is as follows.

1. Defined as a computer of instructor for the course record of student

2. Records programmed into a computer-assisted instruction of the students.

3. Creating application shortcut (Shortcut) CAI on the screens of all learners.

4. When the computer is turned on. The students to run the computer program were created through a shortcut on the screen.

5. Learners study for creating Web pages from the CAI.

6. Learners work on the exercises after studying each chapter to the shared folder in computer of the instructor beforehand.

Achievement test construction

In the achievement test the research was conducted by the following steps.

1. Analyze the content of the web page listed in the subject to create Web pages. Study of teaching and the created CAI Subject of the purpose of learning for the achievement tests.

2. Create exams to meet the learning objectives and content. By a current multiple of 4 options 60 items.

3. The quiz to test the students' academic web page . In the second semester of academic year 2013 there are non- representative sample of 20 people.

4. Taken the test item analysis to determine the level of difficulty (p) and the power distribution (r).

5 . Choose a specific test, the difficulty (p) is between 0.20 to 0.79 and the power classification (r) from 0.20 and up.

6. Chosen to test the reliability of the test. By coefficient alpha (ɑ) by way of the National Convention (Conbrach coefficient) and select to be the remaining items of 40 items.

To create a measure of satisfaction

To create a measure of student satisfaction with the CAI , the researcher has taken the following steps .

1 . Construct a measure of student satisfaction with the CAI . There is a query about the (Rating Scale) to choose the truth after studying the CAI already. The 5 step is to choose the answer strongly agree agree not sure disagree and strongly disagree

2 . Proposed advisor and consider suggestions to improve

3 . Exact structural analysis 3 solution for the IOC

4 . Analysis of the confidence measure satisfaction with coefficient alpha using the formula of Conbrach

Research and data collection

In this research study, researcher has conducted to collect data. This research was conducted to teach students the following sample.

1. The CAI improves it. To test for group of 45 people.

2. When students study the content of each chapter for students to do the exercises at the end of each episode, then collect points to analyze the points between (E1).

3. When students study all of the students make up the score at posttest to analyze the achievement (E2).

4. Bring questions to measure student satisfaction through the determination and confidence to a sample of 20 items.

5. Bring a complete satisfaction to the students to determine the level of satisfaction.

Data analysis

This study contains an analysis method.

1. Effectiveness of CAI as standard 80/ 80

2. Analysis of student satisfaction with the CAI using average

The statistics used in data analysis.

This study used statistical data analysis as follows.

1. Exact analysis of the content

$$IOC = \frac{\sum x}{n}$$

IOC on the accuracy of their content validity

X represents the exact level

n represent the number of experts

2 . Difficulty of the exam

$$P = \frac{R}{N}$$

When p represents the difficulty of the exam

R is the number of correct respondents in each item.

N represents the number of the examinees

3 . Confidence test (KR-20).

$$r_n = \frac{k}{k-1}\left[\left(1 - \frac{\sum p_i q_i}{S_t^2}\right)\right]$$

r_n on the reliability of the test

K represents the number of test items

p represents the proportion of the respondents correct.

q represents the proportion of respondents wrong.

S_t^2 respresents the total variance .

x represents the average of total

4 . Effectiveness of computer-assisted instruction (E1/E2)

Using the E1 / E2 = 80/80.

By the following formula

$$E_1 = \frac{\dfrac{\sum x \times 100}{N}}{A} \qquad E_2 = \frac{\dfrac{\sum F \times 100}{N}}{B}$$

When

E_1 points instead of score doing exercises during class

E_1 the points earned from the posttest .

Σx the total score of the student from doing the exercises.

ΣF represents the total score of the students from the posttest

A is full score of practice.

B instead of the full score of the posttest

N represents the number of students

5. Average (Mean).

$$\bar{x} = \frac{\sum x}{n}$$

$\bar{x}$ is the average .

Σx represents the sum of all scores .

N represents the number of students in the sample.

6. Standard deviation

$$SD = \frac{\sqrt{\sum (X - \bar{X})^2}}{(n-1)}$$

SD is the standard deviation

X represents each of the sample points

n represents the number of people in the sample.

Discussion

At the first part appearance of computer-assisted instruction on creating Web pages for students grade 6.

CAI is created with an CAI is created using Authorware and Flash applications to create lesson by lesson contains content Help using Namo Web Editor for creating Web pages , the contents are divided into five units as follows.

Unit 1 Introduction to Namo Web Editor 2006

Unit 2 use the base (Fundamental)

Unit 3 decorative webpage

Unit 4 pages decorated with extra script.

Unit 5 to upload data to the web

Each unit will have exercises at the end of each chapter to learn. In order to collecte for analysis to determine the efficiency of the process (E1) and posttest scores for the 40 items to determine achievement (E2).

Part 2 of monitoring the effectiveness of computer-assisted instruction medium Creation

Web pages for students grade 6.

Performance monitoring of the media, computer-assisted instruction Creating Web pages for high school students Grade 6 were constructed as follows.

1 . Checked by experts. The data were analyzed by the IOC of a third person to check the appropriateness and consistency of the features of computer-assisted instruction on creating Web pages. Students grade 6 and leave additional comments to meet the cost of lessons which use the exact level.

1 means disagree.

0 means not sure

-1 mean do not agree.

Analysis is the consistency index 1.00 Table 1

Table 1 shows the IOC of the CAI Creating Web pages. Students Grade 6 by experts.

Assessment item	person 1	people 2	people 3	total
1. Inspire				
1.1 provoking lessons are interesting.	1	1	1	1
1.2 use appropriate presentation techniques.	1	1	1	1
1.3 formatted properly.	1	1	1	1
1.4 of graphics and audio is not appropriate.	1	1	1	1
1.5 overall screen design	1	1	1	1
2. Purpose .				
2.1 the lessons are intended to inform.	1	1	1	1
2.2 objectives are clear, easy to understand	1	1	1	1
2.3 purpose of the lesson content.	1	1	1	1
3. the content and the story .				
3.1 use pictures . The graphics match the content.	1	1	1	1
3.2 lessons are focused on the important content.	1	1	1	1
3.3 lessons are correct and up to date	1	1	1	1
3.4 lessons are held in units .	1	1	1	1
3.6 Students can control learning	1	1	1	1
4 . Further knowledge test				
4.1 testing complies the purpose of the lesson.	1	1	1	1
4.2 test using concise, easy to understand	1	1	1	1
4.3 the answer is simple .	1	1	1	1
5. Aspect to remember and apply.				
5.1 Result of lessons meets the purpose.	1	1	1	1
5.2 The lessons are clear, concise	1	1	1	1
5.3 lessons can be taught as a substitute teacher	1	1	1	1

Table 1 shows the corresponding index of computer-assisted instruction on creating Web pages. Students found that the six -year average is 1.00 , which is quite good . It shows that media CAI creating Web pages for students grade 6 meet the six objectives of the research.

2. Analysis for the difficulty (p) discrimination (r) of the achievement test. The results are shown in Table [1]

Table 2 shows the results for the difficulty and discrimination. The test

Exam questions	correct	incorrect	r	p	interpretation
1	33	12	0.62	0.78	Not apply
2	32	13	0.60	0.70	Not apply
3	35	10	0.66	0.93	Not apply
4	36	9	0.68	1.00	Not apply
5	40	5	0.75	1.30	Not apply
6	39	6	0.74	1.22	Not apply
7	35	10	0.66	0.93	Not apply
8	38	7	0.72	1.15	Not apply
9	37	8	0.70	1.07	Not apply
10	39	6	0.74	1.22	Not apply
11	33	12	0.62	0.78	Not apply
12	35	10	0.66	0.93	Not apply
13	40	5	0.75	1.30	Not apply
14	39	6	0.74	1.22	Not apply
15	36	9	0.68	1.00	Not apply
16	33	12	0.62	0.78	Not apply

17	32	13	0.60	0.70	Not apply
18	36	9	0.68	1.00	Not apply
19	34	11	0.64	0.85	Not apply
20	36	9	0.68	1.00	Not apply
21	30	15	0.57	0.56	Not apply
22	32	13	0.60	0.70	Not apply
23	36	9	0.68	1.00	Not apply
24	37	8	0.70	1.07	Not apply
25	31	14	0.58	0.63	Not apply
26	33	12		0.78	Not apply

27	34	11	0.64	0.85	Not apply
28	30	15	0.57	0.56	Not apply
29	36	9	0.68	1.00	Not apply
30	38	7	0.72	1.15	Not apply
31	36	9	0.68	1.00	Not apply
32	35	10	0.66	0.93	Not apply
33	31	14	0.58	0.63	Not apply
34	35	10	0.66	0.93	Not apply
35	34	11	0.64	0.85	Not apply
36	33	12	0.62	0.78	Not apply
					Not apply

37	33	12	0.62	0.78	Not apply
38	36	9	0.68	1.00	Not apply
39	36	9	0.68	1.00	Not apply
40	35	10	0.66	0.93	Not apply

1 . Analysis for the reliability of the achievement test for the reliability analysis of achievement tests by using the KR-20 formula, the reliability of the test achievement was equal to 0.8320

2 . Monitoring the effectiveness of computer-assisted instructional materials for students to create Web pages by considering the ratio between the efficiency of the process, the performance of the output (E1/E2) of the students after the lesson taught by the media computer -assisted instruction creating Web pages. Students grade 6, which appear in Table 3.

Table 3 shows the results of the performance of computer-assisted instruction medium.

Creating Web page Students grade 6.

Item	Performance Process (E1)	Perform Results (E2)	(E1/E2).
The lessons learned through the media.			
Computer-assisted instruction	88.93	89.89	88.93/89.89
construction for the web page			
Students grade 6			

Table 3 Results of monitoring the effectiveness of computer-assisted instruction medium. Creating Web pages for the students grade 6 appeared to be effective.

Part 3 examination results of students ' satisfaction with the Student grade 6 classes toward Creating Web pages.

Monitoring the satisfaction of students grade6 to learn about the creation of Web pages. The CAI was performed as follows.

1. Checked by experts. The data were analyzed by the IOC of three experts to check the appropriateness and consistency of the questionnaire of 20 items , which are the exact levels .

1 mean disagree.

0 means not sure

-1 mean do not agree.

Analysis is the consistency index 1.00 Table 4.

Table 4 shows the consistency of an index to measure the satisfaction of students with the lesson Computer assisted instruction for creating Web pages. Students grade 6 by experts.

Item to evaluate	person1	people 2	people 3	Average.
Computer-assisted instruction is provocative interesting to study .	1	1	1	1
Computer assisted instruction for both knowledge and enjoyment.	1	1	1	1
Computer-assisted instruction provides students with the skills to learn independently. .	1	1	1	1
Computer assisted instruction is concise , easy to understand words	1	1	1	1
Computer assisted instruction has highlighted the important content	1	1	1	1
Computer-assisted instruction to help with the initiative . .	1	1	1	1
Sort content from simple to complex	1	1	1	1
The lessons are divided into units	1	1	1	1
Computer assisted instruction enables students to study and review the content	1	1	1	1

Test using concise , easy to understand	1	1	1	1
Clarity of instructions	1	1	1	1
The interaction between the learner and the lesson. .	1	1	1	1
Appropriate lesson presentation techniques . .	1	1	1	1
Computer-assisted instruction can be used to study regardless of location and time .	1	1	1	1
Computer assisted instruction in the computer learned even more	1	1	1	1
Use computer assisted instruction on many subjects. .	1	1	1	1
Computer tutorials allow students to learn it faster, without waiting for a friend	1	1	1	1
The slow learners can learn with computer-assisted instruction on their own	1	1	1	1
Learning , computer-assisted instruction helps students are responsible	1	1	1	1
Computer-assisted instruction can be used To substitute the teacher	1	1	1	1

Table 4 shows the index of the consistency of a measure of satisfaction of students in grade 6 with the use of computer-assisted instruction by experts found that the IOC 1.00 show that a measure of satisfaction questionnaires to meet the objectives of the research.

2 . Checking satisfaction of students grade 6 to learn about the creation of Web pages. With CAI in the historical interpretation of the mean found that the average satisfaction level of 4.65 is very satisfied with the results as follows.

Table 5 shows the satisfaction of students to CAI Creating web page design.

Assessment items	Mean	S.D.	Level
Computer assisted instruction is inspiring interesting to study .	4.51	0.59	Highest
Computer assisted instruction for both knowledge and enjoyment.	4.49	0.51	Highest
Computer assisted instruction for students with the skills to learn independently.	4.78	0.42	Highest
Computer assisted instruction is concise, easy to understand words .	4.51	0.51	Highest
Computer assisted instruction has highlighted the important content	4.42	0.54	Highest
Total	4.54	0.51	Highest

Table 5 shows that the satisfaction of students in computer-assisted instruction for creating Web pages, the pattern as a whole is at the highest level (= 4.54) when considering all found to be most satisfactory of 5 items.

Table 6 shows the satisfaction of students to CAI Creating Web pages aspect of substantive and operational issues.

Assessment items	$\overline{X}$	S.D.	Level
Computer-assisted instruction to help with the initiative.	4.16	0.67	High
Sort content from simple to complex	4.78	0.42	Highest
The lessons are divided into units.	4.87	0.34	Highest
Computer assisted instruction enables students to study and review the content.	4.82	0.39	Highest
Test using concise, easy to understand.	4.84	0.37	Highest

Total	4.69	0.43	Highest

Table 6 shows the satisfaction of students in computer- assisted instruction creating Web pages aspect of substantive and operational issues. Overall, the highest level (= 4.69) when considering all that has satisfied the fourth section, and has satisfied the first clause by clause with the highest points is the lessons are divided into units (= 4.87 .)

Table 7 shows the students' satisfaction with the CAI Creating Web pages aspect of exercises.

Assessment items	$\overline{\mathrm{X}}$	S.D.	Level
Clarity of instructions	4.71	0.46	Highest
The interaction between the learners and the lesson.	4.80	0.40	Highest
Total	4.75	0.43	Highest

Table 7 shows that the satisfaction of students in computer-assisted instruction for creating Web pages aspect of exercises. Overall, the highest level (= 4.75) when considering all that has satisfied the second most constraints.

Table 8 shows the students' satisfaction with the CAI Creating Web pages aspect of the organization of the lesson

Assessment items	$\overline{\mathrm{X}}$	S.D.	Level
Appropriate lesson presentation techniques.	4.64	0.50	Highest
Computer-assisted instruction can be used to study regardless of location and time.	4.53	0.73	Highest
Computer assisted instruction in the computer learned even more.	4.64	0.57	Highest
Use computer assisted instruction on many subjects.	4.80	0.40	Highest
Total	4.75	0.43	Highest

Table 8 shows that the satisfaction of students in computer-assisted instruction for creating

Web pages aspect of the organization of the lesson. Overall, the highest level (= 4.65) when

considering all found to be most satisfactory to all. Error with the most points is the use of computer-assisted instruction on many subjects (= 4.80.)

Table 9 shows the students' satisfaction with the CAI Creating Web pages aspect of the benefits and adoption.

Assessment items	$\overline{X}$	S.D.	Level
Computer tutorials allow students to learn it faster, without waiting for a friend.	4.51	0.55	Highest
The slow learners can learn with computer-assisted instruction on their own.	4.64	0.48	Highest
Learning, computer-assisted instruction helps students are responsible.	4.56	0.50	Highest
Computer-assisted instruction can be used to substitute teachers	5.00	0.00	Highest
Total	4.75	0.43	Highest

Table 9 shows that the satisfaction of students in computer- assisted instruction for creating Web pages aspect of the benefits and adoption. Overall, the highest level (= 4.67) when considering all found to be most satisfactory to all . Computer-assisted instruction can be used instead of the teachers have taught (= 5:00)

Table 10 shows the students' satisfaction with the CAI All aspects of creating Web pages.

Assessment items.	$\overline{X}$	S.D.	Level
1. The form.	4.51	0.55	Highest
2. The content and the story.	4.64	0.48	Highest
3. The exercises.	4.56	0.50	Highest
4. Concerning the lessons.	5.00	0.00	Highest
5. Further benefits and adoption.	4.75	0.43	Highest
Total	4.69	0.39	Highest

Table 10 shows that the satisfaction of students in computer-assisted instruction for creating Web pages, including all aspects included in the highest level (= 4.65) when considering each aspect it found the most satisfaction of all aspects.

Conclusions

This research is experimental research. And efficiency of the media to create a computer-assisted instruction on creating Web pages for students grade 6 and measure students' satisfaction with the CAI which are summarized below.

The objective of the study

1. To design and build a computer-assisted instruction on creating a Web page for students grade 6

2. To evaluate the effectiveness of computer-assisted instruction on the web for students grade 6.

3 . To measure the satisfaction of the students about the creation of computer-assisted instruction Web pages for students grade 6.

The scope of the study

This research is experimental research. To create a computer-assisted instruction on creating Web pages for students in Grade 6, the scope and content of the study variables as follows.

1. The creation and development of the CAI this as the content of the web page . The course of web page in Career and Technology Department was placed in a computer -based program, Authorware and Flash software to create lessons

2. Samples are students grade 6 of 45 students, which is derived from a random sampling of all students learning to create Web pages.

3. Variables studied are as follows.

3.1 The variables include computer-assisted instruction on creating Web pages students grade 6 .

3.2 The dependent variable.

3.2.1 The effectiveness of computer-assisted instruction on the web for students grade 6.

3.2.2 Satisfaction of students with computer-assisted instruction on creating Web pages students grade 6 .

4. Laboratories two middle school computer lab using the " Prachapat " school , which is the network that are in the same workgroup by students to one computer per one unit.

5. Many lessons to learn lessons take 10 lessons of 50 minutes.

Tools used to gather information.

 1. Assisted instruction for creating Web pages for students grade 6 and final episode of the sixth series of exercises.

2 . Achievement tests. The use of computer-assisted instruction on creating Web pages for students grade 6, 40 items.

3 . Measurement of student satisfaction with the CAI of 20 items

Conducting experiments

Divided into two stages as follows

Phase 1 implementation of a tool based on the following topics.

1 . Creation and effectiveness of computer-assisted instruction

2 . Establish and monitor the quality of the achievement test.

3 . Generate and test checks the quality of customer satisfaction.

Phase 2 Experiment was conducted

1 . Groups teaching using computer-assisted instruction

2 . Learners study. Studies and exercises on each chapter completed

3. Provide learners test achievement. Then the results were analyzed to determine the effectiveness of computer-assisted instruction.

4 . Learners test their satisfaction. Then the results were analyzed for an average satisfaction rating of students.

Data analysis

This research study analyzed the data

1 . Effectiveness of CAI as standard 80/ 80

2 . Analysis of student satisfaction with the CAI the average

Conclusions

Of the sampling group the research findings can be summarized as follows.

1. CAI created a computer generated program Authorware and Flash applications, packaged applications Namo WebEditor content to create web pages. The content is divided into five learning units. End of the chapter exercises in each unit. And test the classes.

2 . Effectiveness of computer-assisted instruction medium. Creating Web pages for students grade 6 (E1/E2) were 88.93/89.89, which was higher than the standard 80/80 set.

3. The satisfaction to learn about creating a web page. Using media CAI equals 4.88 in the most satisfactory.

Discussion

1. CAI built like a CAI created using Authorware and Flash applications to create lesson by lesson contains a method using Namo WebEditor to create a Web page (the region. append k) , which is divided into five units as content .

Unit 1 Introduction to Namo WedEditor 2006.

Unit 2 The base (fundamental)

Unit 3 Decorative webpage.

Unit 4 Pages decorated with extra script

Unit 5 To upload data to the web

Each unit will have exercises at the end of each chapter to learn collected for analysis to determine the efficiency of the process (E1) and posttest scores for the 40 items to be analyzed for achievement (E2).

Good results of the computer are that inspiring the attention of students intending to study students in the lesson. Moreover, the students can study the performance of learners in lessons. The disadvantage of course is because the content of the lesson in the form of video files are large and it takes time to open some files. The content is going to be slow.

2. Research found that media CAI creating Web pages for students to effectively 88.93/89.89 6 is acceptable as an effective means to create and develop a computer-assisted instruction. Web pages for high school students grade 6 , which can be applied to the creation and development of computer-assisted instruction to be effective, the criteria depend on the form of computer assisted instruction content . The innovative approach of Nongnuch Watanawaha (1992 : 1) has been discussed and the findings are consistent with learning theory of behaviorism of Skinner (Skinner) , who said that teaching with the teaching assistant. The teaching of the course is divided into units and then split into sub-sequences. Sequence by content from simple to difficult, each step a concept completely and have an ongoing relationship with the students to learn on their own to meet the existing and on completion of each stage he will receive immediate reinforcement .

This finding is consistent with the findings of Chanchai Kumphol (2004 : online), have concluded that the prime multimedia and traditional practices . For students, the second highest level of quality and performance 88.08/86.08 consistent with the findings of Samoon Waiyaboonma (2003 : Abstract), which concluded that a multimedia CD-ROM 95.3/98.3 effective , according to the criteria of 90/90 in line with the findings of Sakon Reuangnoom(2003 : Online) concluded that multimedia science. The appliances in the home of the third year of secondary school students developed by the criteria set 88.75/86.33 is 85/85 in line with the findings of Sivika Amonrattananukrao (2001 : online), have concluded that the performance of multimedia Animals . 92.5/91.9 effective, which is based on the standard 90/90 in line with the findings of Nisa Krihirun (2000 : Online), which concluded that multimedia . The tooth organ support for teaching undergraduate students the first year was the performance criteria set 94.16/94.40 higher than the 90/90 and is consistent with the findings of Davis which concluded that computer-assisted instruction for teaching Tutorial basic algebra taking into account the individual differences as a factor in the development and performance of tutorials Tutorial.

3. The measurement of student satisfaction with the Computer Assisted Instruction to create Web pages. Students grade 6 and the average maximum is the practice (= 4.75), the question of the average most computer-assisted instruction to teach the teacher (= 5.00) level of satisfaction overall average is 4.65 , which means the satisfaction levels of the most satisfying . This is consistent with the research of Nuthaphol Thamlanka (1995 : Abstract), who said that the comparison between the traditional method of studying with students . Using computer-assisted instruction found that students 'attitudes towards computer-assisted instruction in accordance with the level of research of Puttachart Jinuntuya (1998 : Abstract) mentioned students ' attitudes towards computer assisted instruction lessons . Consistent with the findings of multimedia series on animals show that students are very good .

Suggestion

1. Should provide guidance to the students how to use a computer regularly.

2. Should help the students do the exercises before classes to study the scores between pretest and posttest scores.

3. Should develop computer-assisted instruction allowing learners to interact with lessons such as making a greater variety of skills.

4. Should provide research and support for teachers in schools and the media have produced a computer-assisted institutions.

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