

# A COMPUTER-AIDED INSTRUCTION IN TEACHING HISTORY AND DEVELOPMENT IN BOWLING

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**ABSTRACT:** This exploratory study evaluated the proposed Computer Aided Instruction in Bowling on human-computer interaction. Thirty five learners who were enrolled in Angeles University Foundation participated in the study taking up P.E. 03 bowling as their subject. Results indicated that the students and teachers response had considered the Computer Aided Instruction in the teaching of History and Development of Bowling an important medium that supplements activity in motivating the students to fully participate in the upcoming actual bowling drills and tournament. It was also concluded that computer-aided instruction in teaching the history and development of bowling was effective to the assimilation of important facts of the lesson for it is being comprehensive, simple and easy to understand on the part of the students.

**Keywords:** *Computer Aided Instruction, Bowling*

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## INTRODUCTION

Hoffer (1975) states that advocates of computer aided instruction (CAI) have taken some resemblance to the little boy who cried wolf [1]. For decades, they have said that the computer would revolutionize education from all levels from elementary reading to in home continuing education. Despite large investments from government and industry, most educational settings the computer has had little impact on significant number of students.

Modern education has a long period of interest in using the technologies as a part of solution for educational problems. With print, as one of the technologies, the delivery of instruction has come to be part of print – oriented practices. Some printed materials have been published to use in classroom as tool of instructional materials. The introduction of computer aided instruction encourages students and teachers to be productive, innovative and creative. Both will learn about materials, information and different processes by which they could utilize in and outside the classrooms.

For future educators, technology is a powerful tool of instruction that helps teachers to promote the quality of the transfer of learning process. The teacher acts as facilitator in giving

intensive input, thus in the form of text, sound, pictures, videos and animations provide meaningful context to facilitate comprehension, analysis and understanding. However, Ross and Schulz (1999) cited that learning styles significantly affected learning outcomes, as indicated by a significant main effect, as well as an interaction effect between dominant learning style and achievement scores [2]. It would appear that Abstract Random learners may be at-risk for doing poorly with certain forms of computer-aided instruction. Based on the review of literature and results found in their study, it was concluded that computer-aided instruction may not be the most appropriate method of learning for all students.

To make teaching more elaborative and meaningful, the use of interactive software is essential for it enhances the learner's skills in analyzing and solving problems in just a click of a button. It is on this reason the researcher pursued this study for he believed that teaching Physical Education entails the need of a computer-aided instruction in presenting the history and development of bowling through games, animations and other multimedia for the students to fully understand the game. In this light, the researcher proposed a computer-aided instruction in teaching the history and development of bowling to improve the quality of teaching, simplify the learning process and connect the learners in the interactive world of technology.

## **1. METHOD**

In this study, the researcher used descriptive method with the questionnaire as the main tool. According to Calderon (1993) descriptive studies are purposive process of gathering, analyzing, classifying and tabulating data about prevailing conditions, practices, process, trends and cause and effect relationships and then making adequate and accurate interpretation about such with or without the aid of statistical methods [3].

### **Respondents of the Study**

The respondents in this study are the (12) Angeles University Foundation Physical Education faculty and the (35) 2<sup>nd</sup> year College of Education taking up Bowling as their P.E. 03 subject.

### **Instruments**

The questionnaire was design to gather pertinent information among the selected respondents of the study with regards to their perceptions toward Computer Aided Instruction in teaching the history and development courseware of the sophomore education students of Angeles University Foundation. The respondents answered the questionnaire that also includes comments and suggestions for making the study more effective and realistic.

### Treatment of Data

The researcher utilized Likert Scale that presents a set of attitude statements. Respondents were asked to express agreement or disagreement in a five-point scale. Each degree is given a numerical value from 1 being the lowest and 5 being the highest thus, a total numerical value can be calculated from all of the responses. Typical question using a Likert Scale poses a statement and ask respondents to rate whether Strongly Agree, Agree, Undecided, Disagree and Strongly Disagree.

The questionnaire of each respondent was hand scored and the results were tabulated, interpreted, analyzed and held percentage distribution for quantitative description. Descriptive rating was used in describing the data obtained, this include the weighted mean, percentage and distribution. Summated rating scale with each range intervals and descriptive rating were used in this study.

## 2. RESULTS

The following tables have been interpreted analyzed for quantitative description. The result of the responses of both students and teachers has been gathered to form part of the output of this Computer Aided Instruction courseware.

**Table 1**  
**Evaluation of the Students and Teachers for the Contents of CAI**

	Frequency No. Students N = 35	Percentage	Description
1	0	0%	Strongly Disagree
2	1	2.90%	Disagree
3	2	5.70%	Undecided
4	12	34.20%	Agree
5	20	57.10%	Strongly Agree
TOTAL	35	100%	
	Frequency No. of Teachers N = 12	Percentage	Description
1	0	0%	Strongly Disagree
2	0	0%	Disagree
3	0	0%	Undecided
4	5	41.70%	Agree
5	7	58.30%	Strongly Agree
TOTAL	12	100%	

Table 1 shows the frequency and percentage distribution of the responses of students and teachers on the Contents of the Proposed Computer Aided Instruction in the History and Development of Bowling. Statistics in the above table confirms that the content in the courseware are updated, comprehensive and excellently prepared.

**Table 2**  
**Evaluation of the Students and Teachers for the Animation of CAI**

	Frequency No. Students N = 35	Percentage	Description
1	2	5.7%	Strongly Disagree
2	6	17.1%	Disagree
3	8	22.9%	Undecided
4	8	22.9%	Agree
5	11	31.4%	Strongly Agree
<b>TOTAL</b>	<b>35</b>	<b>100%</b>	
	Frequency No. of Teachers N = 12	Percentage	Description
1	1	8.3%	Strongly Disagree
2	3	25%	Disagree
3	1	8.3%	Undecided
4	2	16.7%	Agree
5	5	41.7%	Strongly Agree
<b>TOTAL</b>	<b>12</b>	<b>100%</b>	

Table 2 shows the frequency and percentage distribution of the responses of students and teachers on the Animation of the Proposed Computer Aided Instruction in the History and Development of Bowling. Statistics in the above table shows that the animations in the courseware are well animated.

**Table 3**  
**Evaluation of the Students and Teachers for the Over All Presentation of CAI**

	Frequency No. Students N = 35	Percentage	Description
1	0	0%	Strongly Disagree
2	5	14.3%	Disagree
3	10	28.6%	Undecided
4	10	28.6%	Agree
5	10	28.6%	Strongly Agree
<b>TOTAL</b>	<b>35</b>	<b>100%</b>	
	Frequency No. of Teachers N = 12	Percentage	Description
1	0	0%	Strongly Disagree
2	1	8.3%	Disagree
3	1	8.3%	Undecided
4	3	25%	Agree
5	7	58.3%	Strongly Agree
<b>TOTAL</b>	<b>12</b>	<b>100%</b>	

Table 3 shows the frequency and percentage distribution of the responses of students and teachers on the Over-all Presentation of the Proposed Computer Aided Instruction in the History and Development of Bowling. Statistics in the above table shows that the over-all presentation in the courseware was brilliantly designed.

The high rating given to the aspects of the above tables indicated that the students and teachers response had considered the Computer Aided Instruction in the History and Development of Bowling an important activity in motivating the students to fully participate in the upcoming actual bowling drills and tournament.

### 3. DISCUSSION

This study employed a descriptive research method with the questionnaire as the main instrument. It was the purpose of this study to come up with a computer aided instruction in teaching the history and development in bowling to benefit and promote better understanding of the bowling lesson.

## Conclusions

1. The computer aided instruction in teaching the history and development of bowling was effective to the assimilation of important facts of the lesson for it is being comprehensive, simple and easy to understand on the part of the students.
2. The students found it interesting and eye catching if the prepared PowerPoint Presentation utilized all the multimedia applications available.
3. Microsoft Visual Basic was likewise essential in illustrating to the learners the basic skills, techniques and simulation on how to play the sport.
4. Students and Teachers were highly interested in the class with the aid of the courseware compared to the traditional class discussion.

## Recommenadations

1. Compiled recorded games of well known bowling players must be made available in the proposed CAI to augment the learning process.
2. Actual games are being recommended after the lesson to fully appreciate the sport of bowling. Learning through computers will only develop mental aspects of the learners, combining it with the actual game will develop physical attributes of the students.
3. Other studies is suggested to be conducted in other field of dance and sports to further improve the quality of instruction in Physical Education.

## REFERENCES

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