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(Esquilin and

Jesus, 2005)

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(Alhayek, 2003)

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(2002 ) (2000 )  
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.4

(Multimedia Builder)

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0.95	2.049	8.20	1.304	7.80

.0729 = (0.05)

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(2)

0.88	0.82	0.89		1.44	7.03	
0.99	0.76		0.89	1.57	7.00	
0.82		0.76	0.82	2.37	6.35	
	0.82	0.99	0.88	1.55	6.89	

.0441 = (0.05)

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2006/2005

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(5) (4) (3)  
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93.33	14	93.33	14	Q1
66.67	10	53.33	8	Q2
86.67	13	86.67	13	Q3
73.33	11	40.00	6	Q4
93.33	14	80.00	12	Q5
93.33	14	46.67	7	Q6
100.00	15	13.33	2	Q7
46.67	7	66.67	10	Q8
46.67	7	80.00	12	Q9
73.33	11	73.33	11	Q10
77.33	116	63.33	95	

(4)

0.26	0.93	0.26	0.93	1
0.49	0.67	0.52	0.53	2
0.35	0.87	0.35	0.87	3
0.46	0.73	0.51	0.40	4
0.26	0.93	0.41	0.80	5
0.26	0.93	0.52	0.47	6
0.00	1.00	0.35	0.13	7
0.52	0.47	0.49	0.67	8
0.52	0.47	0.41	0.80	9
0.46	0.73	0.46	0.73	10
1.49	7.73	2.02	6.33	

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	" " *					
0.02	2.159	1.49	7.73	2.02	6.33	

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0.0025	3.027	0.15	1.43	0.31	1.16	
0.0005	3.664	0.19	1.48	0.24	1.19	
0.012	2.399	0.27	1.51	0.25	1.28	
0.001	3.501	0.28	1.41	0.54	0.86	
0.003	2.947	0.22	1.53	0.34	1.22	
0.0005	3.532	1.02	7.33	1.51	5.67	

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## The Effect of Using a Computer Assisted Program on Cognitive and Skill Performance Levels Pertaining Butterfly Stroke Learning

*Iman A. Jabr, Samira M. Orabi and Harith A. Abbas\**

### ABSTRACT

The study aimed at recognizing the effect of using computer assisted program on learning butterfly stroke for female physical education students at the University of Jordan on both cognitive and skill levels through investigating the following hypotheses:

- 1- There is no difference between the control and experimental groups in the cognitive achievement level of butterfly stroke.
- 2- There is no difference between the control and experimental groups in the skill performance level of butterfly stroke.

The researchers utilized the quasi experimental methodology in order to answer the research questions. The sample consisted of 30 female students from the Faculty of Physical Education at the University of Jordan. The female students never have had any experience in the butterfly stroke. They were selected purposively and were distributed randomly into two equal groups. Control group on which the normal educational program was applied, the experimental group on which the educational program with the assistance of computer was applied. To achieve the goal of the study, the researchers designed a software program for teaching butterfly stroke as a part of the educational program with the computer assistance. The researchers also set up two tests one to measure the cognitive achievement level and the second test to measure the acquisition of the skill. Related to the skill the reliability and validity of the tests were verified.

The study was conducted in the second semester 2005/2006, for six weeks based on three meetings per week. Study findings revealed superiority of the experimental group in obtaining and acquiring butterfly stroke skills and related knowledge, when compared to the control group. In the light of the study findings, the researchers recommended using computer in teaching swimming in general, and butterfly stroke in particular, and the necessity to conduct more studies to test the efficiency of using educational computer in teaching various sport skills.

**Keywords:** Butterfly Swimming, Instructional Computer Assisted Program, Instructional Soft Ware.

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