



## Effect of an Educational Program On the Performance Level of Some Basic Skills in Karate

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**Abstract:** The researcher believes that the lesson of physical education needs to apply modern technological methods to be able to achieve its goals optimally, as the introduction of modern technology in the field of education may give us the opportunity to eliminate that type of generations with limited culture and skill and that non-good quality of education. Therefore, the researcher sees the necessity to take advantage of the capabilities offered by educational technology to raise the level of skill performance by designing different and effective educational environments and the optimal use of time and working to increase understanding and awareness of the correct motor performance. Therefore, the researcher has found the necessity of carrying out this research to make optimal use of technological innovations in designing educational programs for basic skills in karate in a systematic framework organized through the method of hypermedia objectives: The Paper aims at the following: 1. Designing an educational program for basic skills in karate, using the hypermedia technique. 2. Identifying the educational program effects on the level of basic skills performance in karate. procedures: Paper curriculum: The researcher used the experimental curriculum because of its relevance to the research nature by using the experimental design of two groups, one is controlled and the other is experimental by using the post-measurement of the two groups. Paper sample: The research sample was chosen intentionally from secondary school students in Al-Salihiya Educational District. The sample included (10) students who were randomly divided into two equal groups, each of which (5) students. results: Through the aims of the research and its hypothesis, and according to what the results indicated, the following conclusions were reached: 1. The experimental group that used the computer software prepared with the technique of hypermedia technique in some basic skills level in karate surpassed the control group that used the (traditional) method followed. 2. Computer software prepared with Hypermedia technology was more effective in the performance level of some basic skills in karate than in the traditional method. recommendations: In light of the previous results, the researcher recommends the following: 1. The necessity of using computer programs that use hypermedia technique in teaching different athletic activities' skills. 2. The computer science courses in physical education colleges should include training to use and produce educational programs. 3. The necessity of expanding the establishment of educational technology laboratories in colleges of physical education.

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**Keywords:** hypermedia, educational program, skills, karate.

### 1. Introduction:

The era in which we live now is witnessing an increase in knowledge-making at unprecedented rates. This huge rate of knowledge swells more quickly than before, as new inventions, research, and discoveries appear in every field every day, especially technological innovations which have great importance in increasing and improving the educational process data and make it better. Educational development represents a tremendous challenge that must be faced bravely as it is a demand that comes from the reality of our situation and what the world's technological progress is witnessing. Therefore, we must have a tremendous revolution in our education systems and programs, our teaching methods, and methods that reorganize and organize the methods and systems of

dealing with the educational process. And this is not done except through keeping up with the curricula and methods of teaching physical education to global changes by introducing new technological methods and the innovative evaluating systems so that we can keep pace with the changes taking place in the cognitive fields and their practical applications to achieve educational goals.

Muhammad al-Baghdadi (1998) states that technological innovations have gained increasing importance to increase the data of the educational process, due to the impact of the continuous development of knowledge and the steady increase in human experiences and this superior acceleration

through technological development in general, and technology of education and technology of education and learning in particular consequent Education technology becomes a necessary necessity for all learners at all levels of education to raise the level of efficiency and effectiveness of the educational process. Hence new methods have emerged in the education system, including individualized system, self-instruction system, Hyper Card system, interactive video system, hypertext system and hyper graphic system which has also led to the emergence of advanced and developed generations in its computer mechanisms and technologies with ever-present capabilities that led to the emergence of many technological innovations such as the technology of Hypermedia.

Zainab Muhammad 2000 notes that hypermedia includes various patterns of highly integrated electronic information and environments that allow the learner to learn effectively and efficiently through electronic links that are used interchangeably in an educational situation. Hypermedia includes graphics, animations, sound recordings, sounds and speech, music, Photographs, colors, graphics, clips from still and moving video images, in addition to the text to provide the educational experiences of the learner. These media are integrated via the computer to a degree that enables the learner to address this information and interact with it through controlling the speed, path, sequence and the amount of information that he needs to maximize the sensory and cognitive entrances to him, and help him achieve the expected goals of learning and provide it with entrances New educational.

Philippe & Barker J. indicate the differences between the terms of hypermedia and multimedia. While multimedia refers to the diversity in the media used, the learner uses every medium or more, taking into account the time and timing of each medium, however, hypermedia is not only the gathering of media but rather it is based on enriching and deepening the information included in a program and presenting it in an integrated and effective framework used by all of the learner's senses and emphasizing the learner's control and interaction with the system. This interaction enables the learner to determine the paths and methods followed by the amount of information retrieved and control the speed of his education, and that hypermedia has the ability to address the processing of relevant information quickly through special techniques known as links, which is the means of linking information with the essence of hypermedia.

Wings Chawing (2000) explains that using new modern techniques of hypermedia in the learning

process which aims to create an educational climate and environment that leads to learning happening efficiently and effectively.

Bonnie P. (1999) stresses the crucial importance of using educational technology in physical education lessons as it supports and enhances the study of various physical education programs and lessons.

The researcher believes that the lesson of physical education needs to apply modern technological methods to be able to achieve its goals optimally, as the introduction of modern technology in the field of education may give us the opportunity to eliminate that type of generations with limited culture and skill and that non-good quality of education.

Therefore, the researcher sees the necessity to take advantage of the capabilities offered by educational technology to raise the level of skill performance by designing different and effective educational environments and the optimal use of time, and working to increase understanding and awareness of the correct motor performance. Therefore, the researcher has found the necessity of carrying out this research to make optimal use of technological innovations in designing educational programs for basic skills in karate in a systematic framework organized through the method of hypermedia.

#### **The research objectives:**

The Paper aims at the following:

1. Designing an educational program for basic skills in karate, using the hypermedia technique.
2. Identifying the educational program effects on the level of basic skills performance in karate.

#### **The research hypothesis:**

- There are statistically significant differences between the experimental and control groups in the dimensional measurement in the level of performance of some basic skills in karate for the benefit of the experimental group.

#### **The research procedures:**

Paper curriculum:

The researcher used the experimental curriculum because of its relevance to the research nature by using the experimental design of two groups, one is controlled and the other is experimental by using the post-measurement of the two groups.

Paper sample:

The research sample was chosen intentionally from secondary school students in Al-Salihiya Educational District. The sample included (10) students who were randomly divided into two equal groups, each of which (5) students.

**Table 1:** The experimental and control groups in the pre-measurement were equal in variables (Age, height, weight, level of intelligence, physical abilities)  $N_1 = N_2 = 5$ 

| variables             | Measurement Unit | Total ranks    |             | Y values       |             | Estimated Y values | Significance level |
|-----------------------|------------------|----------------|-------------|----------------|-------------|--------------------|--------------------|
|                       |                  | Experiment N=5 | Control N=5 | Experiment N=5 | Control N=5 |                    |                    |
| Age                   | Year             | 31.50          | 23.50       | 8.50           | 16.50       | 8.50               | Not significant    |
| Length                | Cm               | 25.50          | 29.5        | 14.50          | 10.50       | 10.50              | Not significant    |
| Weight                | Kg               | 32.00          | 23.00       | 8.00           | 17.00       | 8.00               | Not significant    |
| IQ level              | degree           | 27.00          | 28.00       | 13.00          | 12.00       | 12.00              | Not significant    |
| Physical capabilities | degree           | 32.00          | 23.00       | 8.00           | 17.00       | 8.00               | Not significant    |

The value of (Y) in the table at the level of statistical significance  $0.05 = 5$

It is clear from Table (1) that the value of (Y) computed by applying Man We tiny's test to indicate the differences between both the experimental and the control groups in the pre-measurement was for variables of age (8.50), length (10.50), weight (8.00), IQ level (12.00), physical capabilities (8.00) are all not statistically significant which means that the differences between the two groups in the pre-measurement for each of these variables are not real, which indicates the equivalence of the two research groups in these variables.

#### 1. General object of the research:

The program aims to teach beginners the correct performance of basic skills in karate in addition to concepts, facts and associated information.

#### 2. The program purpose:

The program aims at achieving the following purposes:

- Providing learners with the correct method of performing the skills under discussion in karate.
- Learners can understand and understand the technical stages of the motor performance of the skills in question.

- Providing learners with information and knowledge related to the skills in question.
- Giving learners the ability to interact with both the material learned and technological means.
- Giving learners the ability to use the software well.

#### Experiment procedures:

Pre-measurement:

The researcher carried out the premeasurements of the experimental and control groups in the physical and intelligence tests on Tuesday 10/12/2019.

Main basic experiment:

The researcher applied the basic experiment during the period from 1/1/2020 to 3/2/2020.

Post measurement:

The researcher carries out the post measurements of the two dimensions of the experimental and controlling groups in the basic skills performance level on 5/2/2020

#### Results' presentation and discussion:

##### First: results' presentation:

**Table 2:** The significance of the differences between the experimental and control groups in the post measurement in the level of performance of the basic skills under investigation

| N | Skill variables   | Measurement unit | groups     |         | Total ranks |         | Y Values   |         | Estimated Y values | Significance level |
|---|-------------------|------------------|------------|---------|-------------|---------|------------|---------|--------------------|--------------------|
|   |                   |                  | experiment | control | experiment  | control | experiment | control |                    |                    |
| 1 | Gideon-Bray       | degree           | 5          | 5       | 35.00       | 20.00   | 5.00       | 20.00   | 5.00               | significant        |
| 2 | Aji-oki           | degree           | 5          | 5       | 39.00       | 16.00   | 1.00       | 24.00   | 1.00               | significant        |
| 3 | Soto-Aoki         | degree           | 5          | 5       | 37.00       | 18.00   | 3.00       | 22.00   | 3.00               | significant        |
| 4 | Achi-oki          | degree           | 5          | 5       | 38.00       | 17.00   | 2.00       | 23.00   | 2.00               | significant        |
| 5 | Shoto-oki         | degree           | 5          | 5       | 37.50       | 17.50   | 2.50       | 22.50   | 2.50               | significant        |
| 6 | Oi-zuki           | degree           | 5          | 5       | 39.00       | 16.00   | 1.00       | 24.00   | 1.00               | significant        |
| 7 | May-jerry         | degree           | 5          | 5       | 36.00       | 19.00   | 4.00       | 21.00   | 4.00               | significant        |
| 8 | Livestock - Jerry | degree           | 5          | 5       | 38.00       | 17.00   | 2.00       | 23.00   | 2.00               | significant        |
| 9 | Yuko-jiri         | degree           | 5          | 5       | 38.00       | 17.00   | 2.00       | 23.00   | 2.00               | significant        |

The value of (Y) in the table at the level of statistical significance  $0.05 = 5$

It is clear from Table (2) that the value of (Y) calculated by applying the Mann-Whitney test to indicate the differences between the experimental and control groups in the level of performance of basic skills in post-measurement was for each of the two variants of Gideon-Bray (5.00), Aji-Oki (1.00), Soto-Aoki (3.00), Achi-Oki (2.00) Shoto-Oki (2.50) Oi-Zuki (1.00) May Jerry (4.00) Livestock - Jerry (2.00) Yuko-Jiri (2.00) It is a statistically significant function of all variables, and this means that the difference between the two groups in the dimensional measurement of these variables is real This indicates that the experimental group members were superior to the control group members in these variables.

### **Secondly: results' discussion:**

It is clear from Table (2) that there are statistically significant differences between the experimental and control groups in the dimensional measurement in favor of the experimental group in the level of performance of the basic skills of research.

The researcher attributes this superiority to the members of the experimental group over the members of the control group in the level of performing the basic skills under research to the software prepared in the method of hypermedia, which took into account the level, capabilities and needs of learners and the individual differences between them in addition to the software's distinguished good and integrated educational content in terms of media use, which helped to stimulate mental capabilities In the areas of study, analysis, criticism, matching, and self-evaluation within a suitable learning environment, it involved all the learner's senses and stimulated his motivations towards learning and made him walk in the learning process according to his desire and ability which prompted him to feel himself and his values, which led to the assimilation of facts and knowledge related to the basic skills in addition to that the software helped to clarify the kinematic duties of students of the experimental group in a large and accurate manner, as well as the presence of many visual, audio and musical influences in increasing the reasons for learners to learn without feeling bored as it allowed The software for learners is free to choose the appropriate sailing and wandering methods within the program through interfaces and then allows the learner to control the Learning control program in the presence of immediate feedback that constantly adjusts its performance.

This is consistent with what Mustafa Wafika (2001) indicated that organizing information in a hypermedia style allows the learner to navigate to acquire information in a way that suits him and is appropriate to his abilities and interests, which helps him to gain information, concepts and facts that his

absorption requires ability to think through what these programs offer him and what The learner detects it by himself, which provides easy access to and exit from lessons at any location where the teacher is depending on the response of the learner, so the computer can branch to any other part of the program to provide the learner with the treatment for his mistakes, or branch to provide the learner with enriching material, which is what Hypermedia is an appropriate means of making the learner able to build his or her basic knowledge according to the connections made in proportion to the ideas and information he understands.

It also agrees with what Muhammad Al-Baghdadi mentioned (1998) that the systems of hypermedia lie with the learner that is done with his direction and provide him with everything that helps him to examine the information himself and from here it keeps pace with all the individual differences between learners and also the systems of hypermedia display information in multiple forms of text and graphics Graphical, mobile and sound, and then the learner can interact with the information contained in any of these forms or combine them, which makes the learner able to benefit from the information presented more effectively, which leads to raising the efficiency of the educational process.

He agrees with what Zainab Amin indicated (2000) that the method of hypermedia, which includes various types of information and highly integrated electronic environments, it is possible for the learner to learn effectively and its joke and that it works to integrate the media to a degree that enables the learner to address this information and interact with it and make the most benefit He has sensory and cognitive entrances to him and helps him achieve the expected goals of learning and provides him with new educational entrances.

It also agrees with what Mohammed Zaghoul et al. (2001) stated that hypermedia helps the learner to coexist with the educational media in a systematic and integrated way through the computer in a way that helps him achieve the desired educational goals efficiently and effectively.

### **This is related with the results of the studies of:**

Wilksten D.L. Patterson P. study that indicates to the fact that using the computer tutorial program was effective compared to teaching in the traditional way.

And Osama Ahmed's study (2001), which indicated that educational computer software using hypermedia, was more effective in learning the high jump competition as well as the level of cognitive achievement than the traditional program which indicates its effectiveness.

And the study of the Prophet Salama (2001), which indicated that the method of multimedia computer learning is more effective and positive for learners than the traditional method of learning the skills in question.

And the study of Muhammad Rakha (2003), which indicated that computer software developed in the style of hypermedia, was more influential at the level of learning to crawling swim on the abdomen.

And Ahmed Rakha's study (2003), which indicated that using the computer's educational program, was more effective in learning some basic boxing skills.

Thus, the imposition of the research is fully achieved, which states:

There are statistically significant differences between the experimental and control groups in measuring the level of performance of some basic karate skills for the benefit of the experimental group.

### Results and recommendations:

#### First: results:

Through the aims of the research and its hypothesis, and according to what the results indicated, the following conclusions were reached:

1. The experimental group that used the computer software prepared with the technique of hypermedia technique in some basic skills level in karate surpassed the control group that used the (traditional) method followed.

2. Computer software prepared with Hypermedia technology was more effective in the performance level of some basic skills in karate than in the traditional method.

#### Second: recommendations:

In light of the previous results, the researcher recommends the following:

1. The necessity of using computer programs that use hypermedia technique in teaching different athletic activities' skills.

2. The computer science courses in physical education colleges should include training to use and produce educational programs.

3. The necessity of expanding the establishment of educational technology laboratories in colleges of physical education.

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