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Effectiveness of a Program Based on the Use of Educational Videos to Develop Health Awareness in Kindergarten Children

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ABSTRACT

The current study aims to investigate the effectiveness of a program based on the use of educational videos in developing health awareness among kindergarten children. A quasi-experimental design was used, and the study was conducted on (50) boys and girls enrolled in government kindergartens in Najran. The following instruments were used in the study: a pictorial health awareness test (personal hygiene, environmental health, and physical activity) for kindergarten children, and a program based on the use of educational videos to develop health awareness among kindergarten children. The study reached the following results: There are statistically significant differences at the (0.05) level between the mean scores of the study sample in the pre- and post-tests for children's awareness of personal hygiene, in favor of the post-test; there are statistically significant differences at the (0.05) level between the mean scores of the study sample in the pre- and post-tests for children's awareness of the concept of environmental health, in favor of the post-test; and there are statistically significant differences at the (0.05) level between the mean scores of the study sample in the pre- and post-tests for children's awareness of the concept of physical activity, in favor of the post-test. In light of the study's findings, the researchers offered several recommendations: The importance of utilizing educational videos to develop health concepts in kindergarten children and to make the learning process more enjoyable and engaging. Conducting workshops and training sessions for kindergarten teachers to raise their awareness of the importance of educational videos in developing health concepts in kindergarten children and to teach them how to use them in various educational situations. The necessity of educating kindergarten children about healthy habits through the use of diverse methods.

Keywords: Educational videos, Health awareness, Kindergarten child.

INTRODUCTION

During this stage, kindergarten children undergo numerous changes in various aspects of their development, making the development of their health concepts even more crucial. When a child is healthy, their playfulness and activity increase, and their creativity and talents emerge, fostering a well-rounded citizen capable of contributing to their community and fulfilling their duties towards their nation. Al-Zuboun (2010) emphasizes that physical health and disease prevention are integral to the concepts of the Abrahamic religions. Islam, in particular, prioritizes the health and well-being of children, as this is a fundamental aspect of its tolerant message. Furthermore, child health care is rooted in humanitarian principles that stem from the inherent dignity of humankind. It can be argued

that many health problems people experience are primarily due to unhealthy behaviors practiced by children in their daily lives, as demonstrated by Kobel et al. (2017). The need to promote health in kindergartens was highlighted through the design of a program entitled "Join the Healthy Boat." After the program was implemented, the children in the control group showed improvement in their physical performance and a better understanding of healthy behaviors. Therefore, developing health awareness has become an urgent societal necessity in light of the current circumstances, to help children improve their behaviors in a way that preserves their health and protects them from the spread of health awareness in a way that is not appropriate. Education is of paramount importance in human life. It is considered the primary driver of societal development and the building of civilization. A society cannot progress or advance without the education and training of its individuals. The strength of a society lies in its educated members; they are its foundation and its power (Mar'i Al-Hila, 2017). Computers and the internet have permeated all aspects of life, particularly education. Websites have provided services to both teachers and learners by offering educational content that can be utilized. Among these services are video-sharing platforms like YouTube (Essam Mohamed, 2017). Video-sharing platforms offer a diverse range of content aimed at children, encompassing various types that differ in their objectives and methods. These include educational, entertainment, cultural, social, artistic, and sports videos (Tahir et al., 2019; Heywood, 2021). A study by Abdel-Wahed (2020) presented a set of recommendations for achieving digital security for kindergarten children in light of the challenges of the digital revolution. The most important of these recommendations is helping children manage their internet use and interact safely with digital environments. Al-Salmi (2022) outlined several advantages of interactive video, summarized as follows: It is a modern tool that presents models similar to educational events through simulation. It creates a stimulating environment and engages the learner through its effects. It allows the learner to choose their preferred language for interacting with the video. It enables the learner to watch the video at their convenience, control its playback with pause, rewind, speed up, rewind, and other adjustments, and provides self-assessment tools through questions and feedback. It helps the learner grasp difficult concepts in the educational material. Al-Salmi (2023) stated that the components of interactive video include the following:

1. Devices, including computers, input/output devices, storage equipment, and the like.
2. Information management systems that collect and store learner performance and interaction with the system; these are performance indicators.

-Interactive video software: which includes authoring systems and authoring languages.

Therefore, learner benefit from interactive videos depends on two essential pillars. The first is the educational devices through which the learning material is presented to the learner and interaction with it is facilitated. The second is the management of the learner's information, responses, and interaction with the interactive video. Positive attitudes exist among second-year middle school students towards using interactive video technology due to its characteristics.

These characteristics, summarized by Al-Jahmi (2021) and Al-Buqami (2022), are as follows: It saves time in the learning process for the learner. It allows for self-control in the interactive video display process on the computer during the learning process. It is a practical and effective tool for individual or independent learning. It enables the learner to retain the educational material for an extended period. It combines the characteristics of computers and video. It facilitates direct interaction with educational programs, allowing the learner to navigate the program to find what they are looking for. It considers the abilities, needs, and characteristics of learners, as well as their individual differences. It enhances the interaction between the interactive video and the learner. It provides feedback that reinforces learner responses. Naturally, with rapid technological development, the diversity of video production programs, and the support of interactive video with health awareness, the 2020 study "Cendana" offers some considerations when using educational videos, including: not playing the video completely at the beginning, pausing the video during the teacher's explanation, maintaining a logical sequence in presenting information, and playing the video completely at the end. Video offers several important benefits as an educational medium, such as the ability to pause, stop, or even rewind it at any time based on the learners' needs during the learning process.

The Problem of the Study

There are many reasons that encouraged researchers to investigate the development of health concepts in kindergarten children. Through our work as supervisors of early childhood students in practical education, we observed certain behaviors indicating a low level of children's awareness of the health concepts necessary to protect them from health risks and problems. This was compounded by teachers' reliance on traditional methods and approaches to developing these concepts. Furthermore, a review of previous studies that addressed the development of health concepts in kindergarten children and the use of educational videos confirmed that most of them emphasized the low level of health awareness in kindergartens as a result of using traditional methods to develop health concepts in kindergarten children. This negatively impacted their level of health concepts, and the World Health Organization (2020) recommended the necessity of health awareness in all areas of life, which helps

to reduce the incidence of emerging diseases (http://www.who.int). The study by Abuzar (2016) confirmed that education via educational video has many and enormous advantages for teaching the child. Many studies confirmed the effectiveness of including modern technology during explanations for kindergarten children (Aronin, Sara & Floyd, Kim (2013) and the study by Kulgemeyer, C & Peters C, H 2016, which confirmed the quality of physics explanations via explanatory videos on the Internet), and the study by Samuelsson, R (2019), which concluded that there is a need for a screen for learning. Since traditional methods of teaching children do not encourage development, they can be used in an educational way.

It is no secret that learners are interested in technology in their daily lives, as it occupies most of their time. Based on the above, the researcher decided that the strategy should ensure the use of technology through the use of educational videos in assessing the scientific material and the required tasks.

Research Questions

The Effectiveness of a Program Based on Educational Videos for Developing Health Awareness in Kindergarten Children

This leads to the following questions:

The Effectiveness of a Program Based on Educational Videos for Developing Health Awareness in Kindergarten Children

This leads to the following questions:

Are there statistically significant differences at the 0.05 level between the mean scores of the study sample in the pre- and post-tests of the child's awareness of the concept of personal hygiene, attributable to the use of educational videos?

Are there statistically significant differences at the 0.05 level between the mean scores of the study sample in the pre- and post-tests of the child's awareness of the concept of environmental health, attributable to the use of educational videos?

Are there statistically significant differences at the 0.05 level between the mean scores of the study sample in the pre- and post-tests of the child's awareness of the concept of physical activity, attributable to the use of educational videos?

RESEARCH METHODOLOGY

The current study adopted a quasi-experimental approach using a single-group experimental design to measure the effectiveness of a program based on the use of educational videos in developing health awareness among kindergarten children. This was achieved through pre- and post-testing, comparing the results of the two tests, and measuring the statistical significance of the differences between them.

Study Limitations

- ***Spatial Limitations:*** The study was conducted with kindergarten children enrolled in a government-run kindergarten affiliated with the Early Childhood Education Department in Najran.
- ***Personal Limitations:*** The study sample consisted of kindergarten children enrolled in a government-run kindergarten affiliated with the Early Childhood Education Department in Najran.
- ***Temporal Limitations:*** The study was conducted during the first semester of the academic year 1447 AH.
- ***Thematic Limitations:*** The study examined the use of educational videos in developing health awareness (personal hygiene, environmental health, and physical activity) among kindergarten children.

Research Sample

The study sample consists of a random sample of 50 kindergarten children enrolled in a government kindergarten affiliated with the Early Childhood Education Department in Najran.

Study Terminology

Educational Videos

Al-Maliki (2020, p. 137) defined them as: "A program divided into short video clips that include sound, animation, control icons, responses, questions, and activities; allowing the learner to move through the program according to their own pace, plan, and objectives".

The researchers operationally defined them as: "One of the technological innovations that provides an interactive environment using video technology, incorporating text, images, graphics, and sounds according to user responses through control of video programs in a manner consistent with computer programs. The objectives of

using this technology vary, the most important of which are: raising awareness of (personal hygiene, environmental health, and physical activity) among kindergarten children".

Health Awareness

Malham (2019) defined it as: "The extent to which individuals of different categories know the importance of avoiding dangers and the means that It protects their health and safeguards them from all diseases that may afflict humans.

The researchers define it operationally as: the extent of an individual's awareness of basic health information that affects their health and leads to the formation of health-related ideas, practices, and attitudes that motivate and persuade them to adopt healthy habits in various life situations. The areas of health awareness are diverse, including awareness of personal hygiene, environmental health, and physical activity among kindergarten children.

Research Tools and Materials:

Research Tools

-A pictorial health awareness test for kindergarten children, comprising the following sections: (Personal Hygiene - Environmental Health - Physical Activity).

The scale was developed according to the following steps: Defining the test objective: To determine the effectiveness of a program based on the use of educational videos in developing health awareness in kindergarten children. The researchers relied on the following sources to develop the test: research and studies that addressed early childhood and its philosophies, educational videos, and health awareness. The test consists of three main sections: the first section is personal hygiene, consisting of (8) statements; the second section is environmental health, consisting of (8) statements; and the third section is physical activity, consisting of (8) statements. The total number of statements across the three sections is 24. Children answer by circling the appropriate answer. The test is scored in this way: if the child chooses the correct answer, they receive (1); if they choose the incorrect answer, they receive zero. The total score for the test is 24. The test instructions are formulated for the children before beginning, explaining the concept of the test in the simplest possible way, how to answer its questions, and providing an example of how to answer the test questions.

To ensure the validity of the initial version of the test, the researchers confirmed its suitability by calculating the psychometric properties of the scale and its items. This was done through: calculating the validity and reliability of the study instrument (a pictorial health awareness test for kindergarten children, which includes the following axes: personal hygiene, environmental health, and physical activity).

Calculating the validity and reliability of the research instrument (a pictorial test for measuring health awareness in kindergarten children).

Face Validity (Arbitrator Validity):

The researchers confirmed the face validity of the test by presenting it to a group of nine expert arbitrators with expertise in the field of study. These arbitrators reviewed the study's title, questions, and objectives. They were asked to provide their opinions and observations on the suitability of the test items for the study's topic of measuring health awareness among kindergarten children in Najran, specifically regarding the appropriateness of the statements to the axes and the accuracy of the test. The wording of the phrases and the suitability of the images were reviewed, and the wording of some phrases and some images was modified based on the opinions of the reviewers.

Validity and Reliability of the Research Instrument (A Pictorial Test for Measuring Health Awareness in Kindergarten Children)

Results of Internal Consistency Validity of the Test

To verify internal consistency validity, correlation coefficients were calculated between the scores of each test question and the total scores for the dimension to which the question belongs. The results are shown in Table (1)

Table (1): Shows the correlation coefficients between the scores of each test question and the total scores for the dimension to which the question belongs.

Personal hygiene		**Environmental health**		**Physical activity**	
N	**Correlation coefficient**	**N**	**Correlation coefficient**	**N**	**Correlation coefficient**
1	**0.503	9	**0.557	17	**0.568
2	**0.492	10	**0.487	18	**0.650
3	**0.711	11	**0.768	19	**0.557
4	**0.640	12	**0.678	20	**0.557

5	**0.622	13	**0.554	21	**0.529
6	**0.74	14	**0.828	22	**0.621
7	**0.577	15	**0.855	23	**0.619
8	**0.442	16	**0.487	24	**0.816

***Statistically significant at the (0.01) level*

Table (1) shows the correlation coefficients between the score of each test question and the total score for the dimension to which the question belongs. These coefficients ranged from (0.442 – 0.816), and all were statistically significant. Therefore, the test questions are considered valid for what they were designed to measure.

Construct Validity Results

To verify the construct validity of the test, the correlation coefficients were calculated between the total score for each dimension and the total test score. The results are shown in Table (2):

Table (2): Shows the correlation coefficients between the total score for each dimension and the total test score.

Aspects	Correlation coefficient
Personal hygiene	**0.771
Environmental health	**0.846
Physical activity	**0.830

***Statistically significant at the (0.01) level*

Table (2) shows the correlation coefficients between the total score for each dimension and the total test score, which were (0.771, 0.846, and 0.830), respectively. All of these coefficients are statistically significant, indicating the validity and homogeneity of the test dimensions.

Reliability Results for the Test and its Dimensions

The reliability of the test and its dimensions was verified using Cronbach's alpha coefficient, and the results are shown in Table (3).

Table (3): Shows the reliability coefficients for the test and its dimensions.

Cronbach's alpha coefficient	N	Aspects
0.733	8	Personal hygiene
0.810	8	Environmental health
0.762	8	Physical activity
0.873	**24**	Total grade

Table (3) shows the reliability coefficients for the test and its dimensions, which were (0.733, 0.810, and 0.762) respectively. The overall reliability coefficient for the test was (0.873), which are acceptable reliability rates, giving the researcher confidence in the test results.

Difficulty and ease indices and discrimination index for the test questions.

Table (4): Shows the difficulty and ease indices and discrimination index for the test questions.

Discrimination index	Ease index	Difficulty index	N	Aspects
0.800	0.600	0.400	1	
0.600	0.700	0.300	2	
0.867	0.567	0.433	3	
0.533	0.733	0.267	4	
0.600	0.700	0.300	5	
0.867	0.567	0.433	6	
0.667	0.667	0.333	7	
0.800	0.600	0.400	8	Personal hygiene
0.667	0.667	0.333	9	

0.533	0.733	0.267	10	
0.733	0.633	0.367	11	
0.533	0.733	0.267	12	
0.467	0.767	0.233	13	
0.600	0.700	0.300	14	
0.667	0.667	0.333	15	Environmental
0.467	0.767	0.233	16	health
0.600	0.700	0.300	17	
0.800	0.600	0.400	18	
0.867	0.567	0.433	19	
0.867	0.567	0.433	20	
0.867	0.567	0.433	21	
0.800	0.600	0.400	22	
0.533	0.733	0.267	23	
0.600	0.700	0.300	24	Physical activity

Table (4) shows the following:

- The difficulty indices for the test questions ranged between (0.233 – 0.433), and the ease indices ranged between (0.567 – 0.767). Bloom (1971) indicates that a test is considered good if the average difficulty of its items ranges between (0.20 – 0.80) (Bloom, 1971: 66). Items whose difficulty exceeds (0.80) or falls below (0.20) need to be modified or removed from the test to make it suitable (Al-Zaher et al., 2002: 128-129), (Al-Zubaidi et al., 1981, p. 77.(
- The discrimination indices for the test questions ranged between (0.467 – 0.867), and an item is considered good if its discrimination power is (0.30) according to the standard. (Ebel, 1972), which indicates that an item is good if its discriminatory power is (0.30), and the higher the positive discriminatory coefficient of the item, the better the item (Al-Nabhan, 2004, p. 434), which indicates that the discriminatory power of the test items is appropriate.

Study Materials

-Second: The Effectiveness of a Program Based on the Use of Educational Videos to Develop Health Awareness in Kindergarten Children

The program was implemented on an experimental group consisting of 50 children enrolled in kindergartens.

The program aims to identify the effectiveness of a program based on the use of educational videos in developing health awareness in kindergarten children. The researchers relied on the following sources: research and studies that addressed early childhood and its philosophies, as well as studies that addressed educational videos and health awareness, and research and studies that addressed how to prepare a program for children. The program duration is 6 weeks, with 2 days per week and two sessions per day, from 10/3/1447 to 22/4/1447.

Program Content

The program content consists of a series of sessions to develop health awareness among kindergarten children in Najran. The researchers prepared the program to include (24) sessions to develop health awareness among kindergarten children (personal hygiene, environmental health, and physical activity). The program was implemented with 50 kindergarten children. The researchers used several strategies and assessment methods (pre-test, formative assessment, and post-test). Program Validity:

The program was presented to a panel of (11) expert reviewers in the relevant field to gather their opinions on the program's activities, their suitability for the age group, and their alignment with the objectives. Based on the reviewers' feedback, the necessary modifications were made. Thus, the program reached its final form and was ready for implementation with the study sample.

Practical Procedures for Implementing the Study Experiment

After completing the pre-test, the researchers implemented the program from March 10, 1447 AH to April 22, 1447 AH with the experimental group. The program lasted for six weeks, with two sessions per week, and two sessions per day.

Study Procedures

- Reviewing previous studies related to the research topic to prepare the theoretical framework, literature review, and research instruments.
- Developing the research instrument, a pictorial health awareness test for kindergarten children, after consulting with specialists and a language editor to ensure its suitability, correct wording, validity, and reliability.
- Contacting the Early Childhood Education Department to facilitate the researchers' application of the study instruments and materials to kindergarten children.
- Selecting a pilot sample of 30 children to administer the test and confirm its validity and reliability.
- Administering the test to the main sample of 50 kindergarten children in Najran.
- Developing a program based on educational videos to enhance health awareness among kindergarten children. This program was implemented with the study sample.
- After completing the program with the study sample, the pictorial health awareness test was administered to assess the level of health awareness among the kindergarten children.
- Tabulating and coding the data in the SPSS statistical analysis program in preparation for analysis. - Analyzing the data statistically to answer the research questions.

Interpreting and discussing the results, and writing recommendations and suggestions.

Statistical Methods Used

The researchers used the Statistical Package for the Social Sciences (SPSS 25) to conduct the statistical analyses and employed the following statistical methods:

- Pearson's correlation coefficient; to measure internal consistency and construct validity.
- Cronbach's alpha coefficient; to measure the reliability of the scale.
- Arithmetic means and standard deviation.
- Paired samples t-test; to measure the significance of differences between the pre-test and post-test.
- Black's adjusted gain ratio equation; to measure effectiveness.

Answering the Main Research Question

The main research question states: "What is the effectiveness of a program based on the use of educational videos in developing health awareness among kindergarten children?" To answer the main question, the paired samples t-test and Black's adjusted gain ratio equation were used, which set the value (1.2) to judge effectiveness. The results were shown in Table (1):

Table (1): Significance of differences between the mean scores of the children in the research sample in the pre- and post-tests of the pictorial test for measuring health awareness in kindergarten children.

Measure	M	St-dev	T test			Max grade	Gain
			T	*df*	∝		
Pre-test	9.00	1.56					
Post-test	20.44	1.67	40.01	49	0.001	24	1.239

Table (1) shows the results of the t-test for the significance of the differences between the mean scores of the children in the research sample in the pre- and post-tests of the illustrated test for measuring health awareness in kindergarten children. The mean score of the children in the research sample was (9.0) in the pre-test and (20.44) in the post-test. The t-value was (40.01) and the significance level was (0.001), indicating a statistically significant difference between the two measurements in favor of the post-test. The adjusted gain ratio was (1.239), which is greater than (1.2), indicating that the program based on the use of educational videos, which the researcher used, was effective and led to the development of health awareness among the kindergarten children.

The results of the current study are consistent with those of both Pappas's (2017) study, which aimed to determine the information provided by educational videos to help children complete their assignments and encourage their participation and engagement, and which concluded that completing assignments using videos increases children's love for learning and video-based education; and Isoke's (2017) study, which aimed to

determine the learning outcomes of teachers using video in preschool education, and which found statistically significant differences when teachers used educational videos to teach preschoolers English. Children at this stage are taught to print English letters to strengthen their motor skills.

The researchers attribute these results to the suitability of the educational videos presented to children in terms of health awareness, the variety of videos offered, the videos' appeal due to their inclusion of sound, visuals, movement, and music, and the diversity of assessment methods used.

Answer to the First Sub-Question of the Research

The first sub-question states: "Are there statistically significant differences at the significance level (≤ 0.05) between the mean scores of the children in the research sample in the pre- and post-tests of children's awareness of the concept of personal hygiene, attributable to the use of educational videos"?

To answer this question, the paired samples t-test and Black's adjusted gain ratio equation were used, which set the value (1.2) to judge effectiveness. The results are shown in Table (2):

Table (2): Significance of the differences between the mean scores of the children in the research sample in the pre- and post-tests of children's awareness of the concept of personal hygiene.

Measure	M	St-dev	T test			Max grade	Gain
			T	*df*	∝		
Pre-test	3.00	0.99	24.54	49	0.001	8	1.242
Post-test	6.82	1.00					

Table (2) shows the results of the t-test for the significance of the differences between the mean scores of the children in the research sample in the pre- and post-tests of their awareness of the concept of personal hygiene. The mean score of the children in the research sample was (3.0) in the pre-test and (6.82) in the post-test. The t-value was (24.54) and the significance level was (0.001), indicating a statistically significant difference between the two measurements in favor of the post-test. The adjusted gain ratio was (1.242), which is greater than (1.2), indicating that the program based on the use of educational videos, which the researcher used, was effective and led to the development of awareness of the concept of personal hygiene among kindergarten children.

The results of the current study are consistent with the study by Novrika, S. Hartati, and (2018), which concluded that videos are effective in education, as they are the most representative medium of reality due to their presentation of colorful visual material accompanied by sound. Al-Ajrami's study (2019) concluded that using educational videos enables children to visually engage with information sources, pay attention to specific things simultaneously, follow instructions, connect acquired information to experience, retell information, interpret information through activities, provide feedback, and respond to frequently asked questions. The researchers attribute these results to the suitability of the educational videos for children's health awareness, the variety of videos offered, their appeal due to the inclusion of sound, visuals, movement, and music, and the diverse assessment methods employed.

Answer to the Second Sub-Question of the Research

The second sub-question asks: "Are there statistically significant differences at the significance level (≤ 0.05) between the mean scores of the kindergarten children in the research sample in the pre- and post-tests of children's awareness of the concept of environmental health, attributable to the use of educational videos?" To answer this question, the paired samples t-test and Black's adjusted gain ratio equation were used, which set the value (1.2) to judge effectiveness. The results were shown in Table (3):

Table (3): Significance of differences between the mean scores of the children in the research sample in the pre- and post-measurements of the child's awareness of the concept of environmental health.

Measure	M	St-dev	T test			Max grade	Gain
			T	*df*	∝		
Pre-test	3.02	0.91					
Post-test	6.74	1.05	18.05	49	0.001	8	1.212

Table (3) shows the results of the t-test for the significance of the differences between the mean scores of the children in the research sample in the pre- and post-tests of their awareness of the concept of environmental health. The mean score of the children in the research sample was (3.02) in the pre-test and (6.74) in the post-test. The t-value was (18.05) and the significance level was (0.001), indicating a statistically significant difference between the two measurements in favor of the post-test. The adjusted gain ratio was (1.212), which is greater than (1.2), indicating that the program based on the use of educational videos, which the researcher used, was effective and led to the development of awareness of the concept of environmental health among kindergarten children.

The results of the current study are consistent with the study by Al-Tamimi (2016), which concluded that videos are a powerful and motivating educational tool for students, depending on how they are used. Their use is not an end in itself, but rather a means to achieve educational objectives. The 2016 study by Golinkof, which aimed to teach children pronunciation via Skype video and strengthen their social interaction, concluded that children learned social actions through video, and through this, they learned language. The researchers attribute these results to the suitability of the educational videos presented to children in relation to health awareness, the variety of videos offered, the videos' appeal due to their inclusion of sound, visuals, movement, and music, and the diversity of assessment methods used.

Answer to the Third Sub-Question of the Research

The third sub-question states: "Are there statistically significant differences at the significance level (≤ 0.05) between the mean scores of the kindergarten children in the research sample in the pre- and post-tests of the child's awareness of the concept of physical activity, attributable to the use of electronic stories?" To answer this question, the paired samples t-test was used, and Black's adjusted gain ratio equation, which set the value (1.2) to judge effectiveness, and the results came as shown in Table (4):

Table (4): Significance of differences between the mean scores of the children in the research sample in the pre- and post-measurements of the child's awareness of the concept of physical activity.

Measure	M	St-dev	T test			Max grade	Gain
			T	*df*	∝		
Pre-test	2.98	0.91					
Post-test	6.88	0.82	30.33	49	0.001	8	1.264

Table (4) shows the results of the t-test for the significance of the differences between the mean scores of the children in the research sample in the pre- and post-tests of their awareness of the concept of physical activity. The mean score of the children in the research sample was (2.98) in the pre-test and (6.88) in the post-test. The t-value was (30.33) and the significance level was (0.001), indicating a statistically significant difference between the two measurements in favor of the post-test. The adjusted gain ratio was (1.264), which is greater than (1.2), indicating that the program based on the use of electronic stories, which the researcher used, was effective and led to raising the level of awareness of the concept of physical activity among kindergarten children.

The results of the current study are consistent with the study by the American Academy of Pediatrics (2016), which found that interactive videos enhance children's participation and interaction with content, and the study by Beautemps & Breses (2021), which found that access to global experiences is possible because it allows children to learn from diverse sources. And it is trusted worldwide. The researchers attribute these results to the suitability of the educational videos presented to children for health awareness, the diversity of the videos, their appeal due to their inclusion of sound, visuals, movement, and music, and the variety of assessment methods used.

STUDY RECOMMENDATIONS

Based on the study's findings and theoretical framework, the following recommendations can be made:

- The necessity of utilizing educational videos to develop health concepts in kindergarten children and to make the learning process more enjoyable and engaging.
- Conducting courses and workshops for kindergarten teachers to raise their awareness of the importance of educational videos in developing health concepts in kindergarten children and to familiarize them with how to use these videos in different educational situations.
- The necessity of raising kindergarten children's awareness of healthy habits through the use of diverse methods.

STUDY SUGGESTIONS

- In light of the current study's objectives and results, a set of studies can be suggested as extensions of this study:
- The effectiveness of using educational videos in developing social concepts in kindergarten children.
- The effectiveness of using educational videos in developing national identity in kindergarten children.
- The effectiveness of using educational videos in developing linguistic concepts in kindergarten children.

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