Effectiveness of a Suggested Educational Unit to Achieve Some Objectives of the Non-Classroom Activity in Physical Education for the Second Stage of Basic Education Students

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Abstract: The research aims at achieving some goals of the non-classroom physical activity for students in the first grade students of the preparatory (middle) school (research sample). These goals include developing some of the concepts related to safety and security and giving the students of the sample positive attitudes towards their safety and security during sports activities. To achieve this goal, a suggested educational unit, an achievement test and an attitudes' scale have been prepared. The research tools have been applied to a sample of 40 pupils at a first grade middle school at the city of Sohag. The research results have indicated an obvious impact of the suggested unit respecting the achievement of the research sample students for the unit concepts at the levels of knowledge, comprehension and application. Additionally, the results have indicated the effectiveness of the unit in providing the research sample students with positive attitudes towards their safety and security while practicing sports activities. Moreover, the results have revealed that the proportion of modified increase in the results of both the achievement test and the attitudes' scale has been higher than the threshold set by Blake to accept the effectiveness which is 1.2.

Key words: Non-classroom activity • Developing concepts • Attitudes towards safety and security

INTRODUCTION

School activity is an important aspect of the educational process and a principal ingredient in building and refined the learner's personality, as it focuses on the practical aspects of the life of the learners.

The interest in educational activities has grown after the educational theory has changed from concerning with accumulating information to concerning the growth of the personal and social abilities, which includes valid attitudes and sound behavioral patterns. School have believed in learning through experience and that the activities are of a useful educational value and that this activities are not additions to or outside the curriculum and, therefore, they have been called curriculum-associated activities and because this designation means the separation of or keeping away from the curriculum, some educators have preferred to call it non-classroom activities [1].

Due to the increasing importance of the non-classroom activities, several studies – which have emphasized in its recommendations on the inevitability of the integration between these activities and school subjects, in planning and scheduling these activities outside the timetable range and to be based on clear and specific educational objectives were conducted [2-4].

The non-classroom activities occupy a distinctive position in the physical education programs in schools. Physical education acts to achieve its goals through the physical education program and the experiences and activities it involves within the school schedule represented in the lessons of physical education as classroom activities, or outside the school schedule represented in the internal and external activities as non-classroom activities.

Non-classroom activities in physical education are of particular importance as complementary and supplementary to the physical education program in schools. They are also regarded as an extension to the physical education lessons. Because the sports lesson is limited within the school schedule with a number of lessons that are not sufficient but to teach the basic principles of sports activities and that the time allotted for the lesson is not enough to achieve what is aspired from the program [5, 7].
The concern for the health of pupils and their safety represents a major objective of Physical Education in all educational stages. Practicing different sports activities, whether to spend time or to be trained to reach higher levels of sporting process is the proper way to achieve the integrated development for them in the physical, mental, psychological, social aspects and this in turn helps in achieving the concept of health in its comprehensive sense.

The results of some studies show that the lack of safety and security considerations is one of the main reasons for the physical injuries occurring during the practice of various sports activities [8-12].

The knowledge and concepts related to safety and security form a cognitive and cultural framework of high value for school children, as they can be regarded a protective culture from risks of injuries, which these children may be exposed to while practicing sports activities. In this respect, the students with security awareness are usually less vulnerable to accidents and physical injuries while practicing sports activities compared to the other students who do not have security awareness [13].

Safety and security concepts in the activities of physical education acquire a particular importance for students in the second stage of basic education for many considerations, the most important; that in this age students learn the basic skills of some sports activities and begin to exercise them through competitive activities, where the competition comprises an important aspect of the requirements of students' mental health, for they desire to excel and occupy a distinct social status among their peers [14].

Due to the insufficiency of time allocated to the sports lesson in schools to fulfill the basic needs for students in the second stage of basic education, particularly these needs related to their safety and security during exercising various sports activities and not to mention the scarcity of previous studies aiming at developing concepts, skills and attitudes associated with safety and security of these students during their exercise of those activities. Accordingly, the current research has been presents in the preparation of an educational unit - as one non-classroom activities in physical education - to develop concepts related to safety and security during sports activities among the pupils of the second stage of basic education and to provide them with positive attitudes towards the safety and security in the exercise of those activities.

Research Objective

This Research Aims At:

- Developing some concepts of safety and security while practicing sport activities by the research sample's students.
- Providing research sample's students with positive attitudes towards their safety and security while exercising sport activities.

Research Hypothesis:

- There is a statistically significant difference among the score averages of the research sample's students before studying the suggested unit and after studying it on acquiring the implied concepts for the post-application of the achievement test.
- There is a statistically significant difference among the score averages of the research sample's students before studying the suggested unit and after studying it on their attitudes towards their safety and security while practicing sport activities for the sake of the post-application of the attitudes' scale.
- The suggested unit has an effectiveness with a gaining proportion not less than (1.2) measured by Blake equation for measuring effectiveness.

MATERIALS AND METHODS

Nature of the research has required the use of several materials and tools that can be divided as follows:

- List of concepts related to safety and security in sports activities, which should be provided to the students of the sample (prepared by researchers).
- An educational unit suggested for safety and security in the light of the concepts that have been reached, which includes the teacher's guide in the suggested unit (developed by the researchers) (Appendix 1).
- An achievement test of the concepts of safety and security for middle school first-grade students (prepared by researchers) (Appendix 2).
- Attitudes' scale towards safety and security (prepared by researchers) (Appendix 3).

Research Procedures: To achieve the objective of the research and to validate its hypotheses, the research develops according to the following steps:
First: Preparing the Research Materials and Tools:

- Preparing a list of concepts related to safety and security in sports activities, which should be given to the pupils of the research sample.

To prepare a list of concepts related to safety and security during sports activities for students in the second stage of basic education, we have benefited from the following sources:

- The general objectives of Physical Education and objectives of teaching it in the second stage of basic education.
- Previous research studies and specialized references, which have dealt with these concepts [10, 11, 15-20].
- Identifying students’ needs associated with safety and security programs.
- Classification of concepts that have been reached through the previous steps in a logical sequence, which have been presented in the two axes; the first has included the main concepts of safety and security during sports activities and the second has included the sub-concepts of each concept.
- A poll of the jury on the list of concepts to be displayed to a group of jury from the faculty staff at some of the colleges of Physical Education and some supervisors and teachers of Physical Education in the Ministry of Education.
- The educational unit suggested in the light of the concepts that the research has reached to: This unit has been prepared through the following steps:
  - Identifying the objectives of the unit.
  - Selecting the content of the unit.
  - Organizing the content of the unit.
  - Identifying teaching and learning activities
  - Identifying teaching aids and tools.
  - Identifying evaluation techniques.

The suggested educational unit has included the teacher's guide in the suggested unit on safety and security.

Teacher's Guide of the Suggested Unit

The Teacher's Guide Has Involved:

- An introduction to the unit describing its importance and the main topics included and time distribution of these topics.
- The general objectives of the unit.
- Planning for teaching every topic of the unit, each plan has included the following elements:
  - The title of the topic.
  - The behavioral objectives to be attained.
  - How to advance in the teaching of the topic.
  - The teaching aids and tools that can be used in teaching the topic.
  - Evaluation techniques that can be used after the completion of teaching the topic.
  - Controlling the guide and ensuring its validity.

After setting the guide in its initial version, it has been presented to a group of jury in order to know their views and comments concerning:

- Adequacy of the guide's contents in terms of objectives, educational activities and the suggested evaluation techniques.
- Validity and clarity of the subject included in the guide.

The jury has agreed on the validity of the guide and its adequacy to the topics of the suggested unit.

Appendix 1: Teacher's guide in safety and security unit in sports activities for students in second stage of basic education

Topics of the unity and its time plan used

This unit includes major topics for security and safety about sports activities, namely:

<table>
<thead>
<tr>
<th>Topic</th>
<th>Number of Periods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to the Unit</td>
<td>1</td>
</tr>
<tr>
<td>Warm-up and its importance</td>
<td>1</td>
</tr>
<tr>
<td>Clothes and their suitability for practicing sports activities</td>
<td>1</td>
</tr>
<tr>
<td>Health requirements in the environment (a place to play and tools)</td>
<td>2</td>
</tr>
<tr>
<td>Commitment to law and rules of play</td>
<td>1</td>
</tr>
<tr>
<td>Healthy food for athletes</td>
<td>2</td>
</tr>
<tr>
<td>Relaxation and comfort</td>
<td>1</td>
</tr>
<tr>
<td>The importance of the complaint to the teacher or parent when the injury or illness.</td>
<td>1</td>
</tr>
<tr>
<td>First aid for sports injuries</td>
<td>3</td>
</tr>
<tr>
<td>Revision</td>
<td>1</td>
</tr>
</tbody>
</table>

Model for a topic of the suggested unit.

Second topic
Clothes and their suitability for practicing sports activities

Goals to be achieved:
After studying this topic pupils should be able to:

- Identifying health-related specifications which should be met in the clothes pupils wear while practicing sports activities.
- Identifying health-related specifications of good sports shoe.
- Discussing the risk of wearing clothing of others or using their personal tools.
- Illustrating the importance of bathing and changing clothes after the completion of the exercise.
- Identifying risks of using an improper pair of shoes while playing.
- Selecting the proper pair of shoes for practicing sports activity.
- Illustrating the importance of wearing proper sportswear while practicing sports activities.
- Realizing the risk of wearing others' clothing or using their tools on the health and safety of the individual.
- Realizing the importance wearing protective tools during protecting sports activities in protecting the body and avoiding injuries.
- Applying the information, concepts and facts associated with clothing while practicing any sports activity.

Teaching aids and educational activities
In teaching this topic, you can use a number of teaching aids and educational activities; the most importance are:

- Chalk board.
- Some pictures indicating the suitability of clothes and sports shoes for practicing sports activity.
- An educational film serving the content of this topic.

How to progress in the topic
At the beginning, you can stimulate your pupils with some questions such as:

- Why do we wear clothes?
- What do you expect for someone wearing narrow clothes? Can he/she move and perform in an easy way?
- Can he practice his/her sports activating with these clothes?

  Through discussion pupils will reach to the importance of the suitability of clothing for practicing sports activities and these clothes should be comfortable and do not impede movement in order to prevent the person from being prone to injuries while exercising.then the teacher asks his/ here pupils:

- Why do football player wear the shinkar to their legs while playing.
- Why does the hockey goal keeper wear a helmet,
- Why do volleyball players wear bandages for knee and elbow joints.

  Through discussion, illustrate to your pupils the importance of wearing protective clothes for players while practicing the sports activity.

- Why are we keen on twice a week?
- Why are we keen on the cleanliness of our clothes?
- Why are we advised to change clothes and to bathe with water and soap after the completion of the sports activity?

  Through discussing, indicate to your pupils that there are many skin diseases usually arise from the affection of skin with different types of bacteria found on the skin. Also, indicate that the clean skin prevent such attention is attracted by such bacteria, Because the body is subject to dust and the sports activity and the increase of sweat secretion while practicing the sports activity, to ensure the safety of the skin we should.
Bathe with water and soap after the completion of practicing the immediately physical activity.
Changing sportswear after the completion of practicing the sports activity.
Why do the doctor’s advice us not to contact with patients with contagious disease?
What happens if someone uses other's clothes, or uses the others personal tools like towels or spoons?

Through discussion indicates to your pupils that infectious diseases occur by microbes and the patients carry these microbes.
In order to avoid these diseases and protect ourselves from them, we should not wear the clothes of others or use their personal tools. Then the teacher asks the pupils.

- What do you expect from a person wearing a tight pair of shoes?
- What do you expect from a person wearing a too wide pair of shoes?
- What do you expect from a person wearing a tight pair of shoes to play with?
- What do you expect from a person wearing a pair of shoes wider than necessary while playing?
- What do you expect from a person wearing a high heel pair of shoes to play with?
- What do you expect from a person wearing a worn out pair of shoes?
- What do you expect from someone who does not care for tiding his shoes?

Through discussion pupils realize the importance of wearing the suitable pair of shoes in terms of size, height and should not be ragged during sports activities in order to maintain safety of the feet and avoid injury while playing.

What are the specifications of a good pair of sports shoes?
The teacher shows the specifications of a good sports shoe to his pupils:

- Fingers should move freely inside the pair.
- The sole of the shoe must be strong and soft and to be made from a material which do not rupture or is slippery.
- The sole of a shoe or its abut should not have iron or protruding nails lest it causes injuries to the pupils.
- The safety of shoelaces should be ensured and it should be well tied.
- Shoes should be repaired when they are worn out.

Evaluation
Presented in:

- The systematic observation to pupils' behavior in specific learning situations through which we can assess their acquisition of the skills included in this topic.
- Oral questions and discussion with students.
- Some objective long answers questions:

**First Question:** Put a (v) in front of the correct sentences and (×) in front of the incorrect sentence:

<table>
<thead>
<tr>
<th>Sentence</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>The tight sportswear does not affect the movement of the person during play.</td>
<td>( )</td>
</tr>
<tr>
<td>Tight shoes control the movement of foot during play.</td>
<td>( )</td>
</tr>
<tr>
<td>You should bathe and change your clothes after completion of the exercise.</td>
<td>( )</td>
</tr>
<tr>
<td>Wearing a training suit or any other heavy clothing immediately after playing.</td>
<td>( )</td>
</tr>
</tbody>
</table>

**Second Question**
**Complete the Following Sentences:**

- ............... clothes affect the movement of blood circulation.
- The tight belt impedes the movement of..........................
- You should change sportswear and............................. after the completion of the exercise.
- You must wear.......................... clothes to protect some organs of the body during exercise.
- To keep and maintain the safety of the feet, the pair of shoes should be undamaged and appropriate in terms of.......................... and..........................
Third Question
Put a (V) on the Left of the Right Answer:

- When you go to a shoe shop to buy a pair of sports shoes, the first thing you care about is:
  ( ) A - the style.
  ( ) B - the color.
  ( ) C - its appropriateness for the comfort of the feet.
  ( ) D - the price.

Fourth Question
Answer the Following Questions:

- State the specifications of a good sports pair of shoes?
- Discuss the risks of playing with a disappprropriate pair of shoes?
- Explain the importance of wearing sportswear during sports activities?
- Explain the importance of changing clothes and showering after sports activities?

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Appendix 2: An achievement Test On Safety And Security Unit In Sports Activities For Students In The Second Stage Of Basic Education

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Student's Name: ………………………
School's Name: ………………………
Class: ……………………………….

Test guidelines:

Dear pupil,

- This test was designed to measure your knowledge in factors related to your safety and security while exercising.
- This test is composed of three groups of questions.
- Group 1: is a completion test consisting of 10 questions.
- Group 2: is a true or false test consisting of 14 questions;
- Group 3: is a multiple choice test consisting of 22 questions
- It is highly recommended that you use a pencil to write the answer with.
- If you want to change any of your answers – make sure that toy have erased the previous one completely.
- Answer all questions carefully and do not waste a long time to answer one of them.
- If you cannot answer a question leave it and move to the next one.
- Do not start answering before you leave the permission.

Now turn over the page and start your answer

Best wishes of success

- Complete the following sentences with suitable words:
- The help offered to the injured person immediately after the accident is known as …………………
- When doing exercises or playing, you should make sure that the playground is safe and free from …………………
You must have good ………….. and ………….. while exercising in closed halls.

To keep your feet healthy and safe and to avoid injury while playing, he sports shoes should be fit and appropriate regarding ………………. and………..

Players are keen on wearing protection clothes such as …………….. in football and ……………. in boxing to protect some parts of the body from injury while playing.

Muscles need ………….. substances to grow and get stronger while it needs ……………… substances to produce energy necessary for motion.

Dirty clothes make you at risk of infection by ……………… diseases.

…………….. is the result of sudden bending of a joint during playing.

Being exposed to dust ………….. may result in infecting body germs especially tetanus.

Exercises that are done before a match or participating in an physical activity is known as ………………..

II- Put (✓) or (×) in front of each of the following sentences

Wearing tight clothes while practicing physical activity may result in blocking movement or injury during playing. ( )

tight shoes controls foot movement and protect it from injury during playing. ( )

Practising physical activity during very hot weather reduces body's temperature and has no harms on human health. ( )

Long lasting playing or exercising leads to tiredness. ( )

Humans need about two liters of water a day to substitute the last water from body. ( )

Players who continue training without breaking perform better than they who have breaks during training. ( )

Massaging the painful area in the injures joint and delaying the cure of it. ( )

Fats helps muscles to grow and get stronger. ( )

Wearing a training suit or heavy clothes immediately after training increase body temperature and harms one's health. ( )

Pressing nose from outside by Fingers helps in stopping its bleeding. ( )

Muscular tiredness resulted from physical activity harms man's health. ( )

Practising physical activity may help an injured or sick person to cure. ( )

Carbobyclerates supply body by necessary for activity and movement. ( )

It is recommended to practice physical activity while you are infected by flu. ( )

III-Put (✓) or (×) in front of each of the following sentences.

It is considered one of the factors that help in achieving the safety and security of player and protecting him from injury during the physical activity:-

Suitability and plainness of the play ground. ( )

Good nutrition. ( )

Enough rest after effort and enough sleeping hour. ( )

A, B and C are true. ( )

The importance of warm up is due to it helps in:

Psychologically preparing players to physical activity. ( )

Physical preparing players to physical activity. ( )

Protect players from injury during playing. ( )

A, B and C are true. ( )
You should have breakfast because:

- The body needs food after hours. ( )
- We should have three meals a day. ( )
- We don't want to anger our parents. ( )
- It is delicious. ( )

Having balanced food keeps us healthy because:

- It protect body from diseases. ( )
- It supplies body with energy. ( )
- It supplies body with energy. ( )
- A, B and C are true. ( )

Persons who practice physical activity need protein:

- To supply his body with the necessary movement and activity. ( )
- To grow his muscles correctly. ( )
- Because it easy to digest. ( )
- A, B and C are true. ( )

It is one of the causes of injury while playing:

- Not a biding by game rules. ( )
- The unsuitable playground. ( )
- Clothes that are inappropriate for activity and playing. ( )
- A, B and C are true. ( )

Severe pain in joint tumor occurrence and pains while moving are symptoms of:

- Joint break. ( )
- Joint dislocation. ( )
- Joint sprain. ( )

During physical activity you should warm up:

- If the weather is cold. ( )
- If the weather is hot. ( )
- If you haven't practice for a long time. ( )
- Always before physical activity. ( )

When you go to one of the shops to bye one you first look at:

- Shoe shape. ( )
- Fitness of the shoe. ( )
- Shoe price. ( )
- Shoe color. ( )
You should sleep everyday about:

- From 3 – 5 hours. ( )
- From 6 – 8 hours. ( )
- From 9 – 10 hours. ( )
- From 12 – 15 hours. ( )

When practicing volleyball you should warm up:

- Arms only. ( )
- Arms and legs only. ( )
- All parts of the body. ( )
- Fingers only. ( )

When you feel tires while playing you should:

- Immediately stop playing and have a break. ( )
- Keep playing until your friends finish playing. ( )
- Have water or some drinks and continue playing. ( )
- Have a rest and play again. ( )

If one of the enemy players has been injured and you have the ball you should:

- Throw the ball outside in order to give the injured play a chance to be medicated. ( )
- Continue playing until the enemy team has the ball and give their colleague a chance to be medicated. ( )
- Continue playing since the referee didn't stop the game. ( )

If you felt on the ground and have a tumor in your foot during one of the important matches for your team. You should:

- Try to play with injured foot and bear the pains. ( )
- Play with the other foot. ( )
- Stop playing immediately and get out of the playground. ( )
- Spin your foot with bandage. ( )

If you stopped practicing physical activity because of injury when you return to playing you should:

- After consulting one of your friends who advised you to play consulting. ( )
- After consulting your physical education teacher at school. ( )
- After feeling recovered and that you can play. ( )
- After you consult your doctor. ( )

If one of your colleagues was injured in foot joint during playing you immediately:

- Spin the joint with bondage. ( )
- Make cold compresses around the joint. ( )
- Make hot compresses around the joint. ( )
- Massage your joint. ( )
If you are a member in a team at school and you felt sick before one of the important matches for your team. You:

- Hide your sickness and play the match in order not to angry your teacher. ( )
- Hide your sickness but you tell your teacher in case of you feel more pains. ( )
- Tell your teacher that you are sick and apologize. ( )

If you fell on the ground during playing and you felt pain on the joint with a tumor you:

- Tell your parents and see the doctor. ( )
- Seek the advice of your friends. ( )
- Spin it with bondage and don't tell anybody. ( )
- Stop playing for a while and don't tell anyone. ( )

If one of your colleagues have bruise in one of his joints you advice him to make hot compressors and massage on the joint:

- Immediately after injury. ( )
- After one hour of injury. ( )
- After 24 hours of injury. ( )
- After 48 hours of injury. ( )

If you have a neighbor whose work him with having a lot of:

- Vegetables. ( )
- Proteins. ( )
- Carbohydrates. ( )

If you want to have a substitute of meat you should have:

- Lentils. ( )
- Rice. ( )
- Potatoes. ( )
- Spaghetti. ( )

You are preparing with your team for a football match. you advice your team to have food:

- Immediately before the match. ( )
- 3 hours before the match. ( )
- One hour before the match. ( )
- Half an hour before the match. ( )

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Appendix 3: Attitudes’ scale towards safety and security unit in sports activities in the suggested unit
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The student's name:                      Start answering time:
............................................................................................... .................................
School's name:                          End answering time:
................................................................................................. .................................
Class                                         ........................................................................
Guidelines for the scale:

Dear pupil:

You have a set of situations which encounter us in yhbour daily life; each situation is followed with a number of phrases representing an opinion or a suggestion for the situation and beside each phrase of these there are three words: agree......... Not sure........... disagree............

What is required from you:

- If you agree with the statement, circle the word "agree".
- If you do not agree with the statement circle the word "disagree".
- If you are not certain, circle the word "not sure".

Note:

- Do not leave any of the statements that follow each situation without giving your opinion.
- Answer quickly and there is not a correct answer and an incorrect one, your answer is correct as long as it reflects your opinion.

For example:

- Purchasing food from peddlers is a bad habit that must be quitted. agree not sure disagree

  The person who agrees with this statement circle the word "agree" as in the previous example.

Situation (1)

You always find people who take care of themselves, their health and avoid things that may cause them risks while playing. Thus, they avoid playing in at playgrounds that are dusty and full of holes and avoid playing when it is too hot or bitterly cold.

What do you think?

- There is no need for this care or caution does not prevent destiny. agree not sure disagree
- It is supposed for every one to care for himself and avoid danger. agree not sure disagree
- The person who cares for himself is coward and not brave. agree not sure Disagree
- Schools are supposed to teach pupils how to protect themselves and avoid risk. agree not sure disagree
Situation (2)
Ahmed lives in a beautiful and clean place looking at a wide street. He agreed with his friends to go to the club on Friday to play a football match, but his friends changed their minds and asked him to play in the wide street in order to be close to their homes.

What do you think?

- Ahmed should agrees with his friends and play with them in the street. agree not sure disagree
- Ahmed should not agree and should insist on playing at the club. agree not sure disagree
- Ahmed should play with them in the street as long as the street is wide and clean. agree not sure Disagree
- Playing in the street is a bad habit which should be quitted. agree not sure disagree

Situation (3)
Ahmed took the ball and went with his friends to the club to play football match, but they found the play ground of the club full of water and that they could not play not there was a wide place next to the play ground but is full of dust and some of his friends suggested to play in this place instead of returning without playing. Ahmed protested arguing that "this place is unhealthy and may expose us to injured during playing.

What do you think.

- Ahmed is right. agree not sure disagree
- Ahmed is wrong and is supposed to play with his friends agree not sure disagree
- If i were Ahmed, I would refrain from playing in that place. agree not sure Disagree
- The person who could play does not care playing in any place. agree not sure disagree

Situation (4)
Amir went with his friends to the club to play volleyball, borders were not clear. Yet they wanted to border the playground. They did not found enough lime. His friends found some long branches lying beside the fence of the club near the playground. The used them to border the playground from the two sides and the back to play. Amir protested arguing that this behavior could cause injuries during playing and refrained from playing with them.

What do you think?

- Amir is right agree not sure disagree
- Amir can play with them and watch out for those branches. agree not sure disagree
- If t were Amir, I would refrain from playing like him. agree not sure Disagree
- If I were Amir i would play and be aware of myself. agree not sure disagree

Situation 5
At the midday and it is too hot, Osama wore his playing clothes and asked for his mother's permission to play football with his friends but she did not permit him to go out in that time and warned him from playing at hot times to maintain his health. Osama obeyed her but he said to himself, "my health is my own and it is not my mother's business.'

What do you think?

- Osama's mother is right. agree not sure disagree
- It is supposed that Osama should refrain from playing at that time by himself. agree not sure disagree
- Osama is free to play anytime he wants. agree not sure Disagree
- I do not like any one to prevent me from playing if it is hot. agree not sure disagree
Situation 6

The physical education teacher always reminds the pupils that it is necessary for them to wear suitable sports clothes during practicing sports activities in order to move freely and to be not prone to injury in the sports lesson. Ahmed forgot to bring his sports clothes and wanted to practice with his uniform, but the teacher prevented him from participating in the lesson for his safety.

What’s your opinion?.

- It is supposed that Ahmed participates in the lesson as he is responsible for himself.  
  agree not sure disagree
- The teacher is right  
  agree not sure disagree
- It is supposed that every pupil does not practice any sport activity without his sports clothes.  
  agree not sure Disagree
- 4- I do not like the teacher prevents me from practising the sport activity when i for get my sports clothes.  
  agree not sure disagree

Situation (7)

Ahmed went with his father to a clothes shop In order to buy a certain shirt, but the seller told him that there was only one shirt of this kind of shirts and brought it to Ahmed, when Ahmed wore it, it was tight.

What’s your opinion?

- Ahmed should buy this shirt.  
  agree not sure disagree
- Ahmed should not buy it.  
  agree not sure disagree
- If I were Ahmed, I would buy this shirt as long as I like it.  
  agree not sure Disagree
- If I were Ahmed, I would buy another shirt.  
  agree not sure disagree

Situation (8)

Ahmed returned late from the club after his match with his friends. he was tired. he went to bed before having a shower and changing his clothes. his father asked him to get bathed and to change his clothes before sleeping. Ahmed heard his father's words but said to himself. why not i sleep now and take a shower in the morning.

What do you think?

- Ahmed's father was right.  
  agree not sure disagree
- Ahmed can sleep and bathe in the morning as long as he is tiered  
  agree not sure disagree
- Ahmed was supposed to bathe and to change his clothes by himself  
  agree not sure Disagree
- Because Ahmed would not go out, he can sleep and change his clothes in the morning.  
  agree not sure disagree

Situation (9)

Ahmed went with his father to a shoe shop to buy a pair of shoes. He chose a pair he liked. When he tried it on, it was very tight. He did not care and wanted to by it any way because he liked it. His father protested and asked him to choose another suitable and comfortable one. Ahmed obeyed his father but said to himself "one is free to wear what he likes."

What do you think?

- Ahmed's father was right.  
  agree not sure disagree
- It is supposed that every one wears the pair of shoes they like.  
  agree not sure disagree
- If I were Ahmed, I would buy this pair as long as I like it.  
  agree not sure Disagree
- Wearing tight shoes is a bad habit.  
  agree not sure disagree
Situation (10)

Ahmed noticed that the physical education teacher frequently stressing the importance of doing warm-up exercises before practicing any sports activity. For this can maintain health and avoid injuries while playing, Ahmed said to himself "I'm fine and there is no reason for wasting time in doing these exercises"

What do you think?

- Ahmed is right, he can practice the activity he likes as long as his health is good.
- Ahmed is wrong and he should do warm-up exercises before practicing the sports activity.
- I like to practice the sports activity immediately and don’t like to waste time with these exercises.
- Every one should always do warm-up exercises before practicing any sports activity.

Situation (11)

Always, we find some people, when they support their team, throwing stones at the play field or shouting aloud and insult with improper words when their team is defeated.

What do you think?

- We should prevent those people from watching the matches and punish them.
- When my team is defeated, I become angry like them.
- Throwing stones at the playground or shouting with improper word is a bad behavior.
- The person who likes his team is the person who acts like them.

Situation (12)

Hassan was playing with his school team and suddenly while he was possessing the ball, a player of the competitive team was injured and the referee did not stop the match because the ball was inside the playground and it did not go out of the play field. Therefore, Hassan kicked the ball outside the playground to give the injured player the chance to be treated.

What do you think?

- Hassan acted properly.
- Hassan had to continue playing as long as the injured player was not of his team.
- If I were Ahmed, I would behaved like him.
- Hassan was supposed to continue as long as the referee did not stop the match.

Situation (13)

Ahmed was playing a defender in his team in a football match and when a player from the opposing team evaded him and go in the direction of the goal to score a goal, Ahmed hindered him and was injured together with the player from the other team who could not score the goal. The referee dismissed Ahmed and counted a fault on his team.
What do you think?

- Ahmed acted properly because he prevented that player from the opponent to score a goal in his team. agree not sure disagree
- Ahmed acted improperly because it caused the injury and injury to the same opponent. agree not sure disagree
- If I were Ahmed, I would act like him. agree not sure Disagree
- Each player should maintains the integrity and safety of the competitors. agree not sure disagree

Situation (14)
We always find children who are permanently active and who play a lot. But some of them do not give their bodies some comfort after playing.

What do you think?

- Rest after playing is not important as long as the person did not feel tired. agree not sure disagree
- Every person must have some rest after any effort exerted. agree not sure disagree
- I like to rest after playing. agree not sure Disagree
- I like to play continually and I do not care for rest after playing. agree not sure disagree

Situation (15)
Ahmed keeps awake and sleeps too late. One day, Ahmed was awake watching TV as usual, his father said, "get up and go to bed to sleep," so Ahmed went to bed to sleep, but he said to himself, "Every one is free to keep awake as he likes."

What do you think?

- Ahmed's father was right. agree not sure disagree
- To sleep early is not important as long as the person takes enough hours of sleep. agree not sure disagree
- I like sleeping early. agree not sure Disagree
- I like awaking all the night like Ahmed. agree not sure disagree

Situation (16)
Ahmed is keen on eating different kinds of food in his meal.

What do you think?

- Eating different types of food is extravagance. agree not sure disagree
- Every person should be keen on eating different kinds of food. agree not sure disagree
- I like the food I eat to be varied. agree not sure Disagree
- Ahmed can eat one kind of food on a condition: to be sufficient. agree not sure disagree

Situation (17)
The mother prepared breakfast and Amir sat down to have breakfast while his brother Amjad refused to eat breakfast and told his mother he would buy a sandwich to eat in the break.
What do you think?

- Eating breakfast is not important.  
- Amjad should eat breakfast before going to school.  
- Amjad can go to school and eat the sandwich in the break.  
- Each student should be keen on eating breakfast at home before going to school.

Agree  
Not sure  
Disagree

Situation (18)

Amir’s family is Keen on having meals at regular times and on one day, Amir returned home early from school and wanted to eat lunch alone, but his mother said to him,” you must wait for the date of food and eat with all of us, he heard her words said to himself, “every one can eat in the time they want, there is no reason to eat at regular times.”

What do you think?

- Amir is right.  
- Amir should wait until the time of the food.  
- Scheduling meals is not important.  
- Every one should organizes the times of their meals.

Agree  
Not sure  
Disagree

Situation (19)

Hassan was playing with the school team in a match and suddenly fell to the ground and felt some pain in his knee accompanied by a swelling. It was not allowed, for his team, to change any players because the team had finished all his changes.

What do you think?

- Hassan should go out of the playing field immediately and refrains from playing.  
- Hassan can complete the match on a condition that he plays with his one leg only.  
- If I were Hassan, I would not go out of the play field and complete the match lest my team lose the match.

Agree  
Not sure  
Disagree

Situation (20)

Ahmed agreed with his friends to play games on school holiday, but he woke up in the morning sneezing and coughing. He had a bad cold.

What do you think?

- Ahmed can go with his friends and play because if he sleeps, he will feel more tired.  
- Ahmed should have some rest, take some medicine for the cold and play only after he recovers completely?  
- Ahmed can go with his friends not to disappoint them.  
- It is supposed that every one who feels ill should be treated and have some rest till he/she recovers completely.

Agree  
Not sure  
Disagree
Situation (21)
When Ahmad felt ill, he went to the doctor. The doctor prescribed him some medication and ordered him to take it and advised him to rest and not to play. After he finished his medicine and felt that he had recovered of the disease, he wanted to play with his friends, but his father prevented him from playing and said to him, "you should consult your doctor first."

What do you think?

- Ahmed's father is right. agree not sure disagree
- Ahmed could play with his friends that if it is well healed of his illness and was able to play. agree not sure disagree
- There is no need to consult a doctor as long as that Ahmed feels that he recovered from his illness and was able to play. agree not sure Disagree
- Every person should consult the doctor treating them. agree not sure disagree

Situation (22)
Osama always feels tired and dizzy while practicing sports activities in lessons of physical education.

What do you think?

- Osama must complain to the teacher and tell him about any fatigue. agree not sure disagree
- He should not complain to the teacher lest the teacher thinks he does not want to participate in the lesson. agree not sure disagree
- Every student is supposed to tell the teacher about any fatigue. agree not sure Disagree
- Osama should endure and complete the lesson, then he can rest. agree not sure disagree
- Achievement test for the suggested unit:

  To prepare the achievement test for the suggested unit, the following steps have been undertaken:
  - Defining the goal of the test:
    The test has targeted measuring sample students' achievement of the concepts contained in the suggested educational unit for the safety and security in sports activities.
  - Identifying of the levels measured by the test:
    Measuring students’ achievement - the research group - in this test has been confined to the first three levels in the cognitive domain according to Bloom's Taxonomy for cognitive objectives: knowledge - comprehension - application.
  - Identifying the type of test questions:
    The test includes three types of questions:
    - Questions of completion. b - "True or false" questions.
    - Multiple-choice questions.

Reliability of the test:
To calculate the reliability of the test the researchers have relied on the two types of reliability, namely:
- Descriptive reliability: This kind of reliability is presented in the agreement of the jury on the applicability of the test to the research group.
- Statistical reliability: which is estimated with the square root of the reliability coefficient and it has been found that it equals (0.96) indicating that the test has a high degree of reliability and applicability on the research group.
Internal consistency:
The internal consistency is one of the strongest indicators of reliability used in the experimental researches and the two researchers use it here to calculate the correlation coefficients between the test-composing dimensions and the total score of the test as shown in Table 1. Table 1 indicates that the test is highly reliable.

Stability of the test:
The stability coefficient has been calculated in a retail mid-term manner for calculating the correlation coefficients test items to each other. Sperman-Brown equation has been used to calculate the stability coefficient of the achievement test (0.93). This indicates that the test has high stability coefficients and serves as an instrument for application to the research group.

Attitudes’ scale towards safety and security in sports activities:
Situational phrases have been used in the preparation of this scale, as a group of written situations are exhibited to students where every situation reflects a certain behavioral pattern. Each situation is followed with a specific number of phrases, each one reflects its respective opinion or proposal for the situation and the student has to choose what is appropriate according to his/her view. The response is identified with three possibilities: agree, disagree or not sure.

Reliability of scale:
The reliability of the scale has been calculated using:

- The descriptive reliability (the jury' reliability) is represented in the consensus of the jury on the scale's applicability to the research group.
- The subjective (statistical) reliability, which is estimated with the square root to the stability coefficient and that equals (0.93). This points to the validity of the scale as an instrument measuring students' attitudes towards safety and security in sports activities.
- Internal consistency of the scale:

To identify the internal consistency of the scale the correlation coefficients between the degrees of scale dimensions and the total score of the scale, this is shown in Table 2.

Table 2 indicates that correlation coefficients of the scale dimensions are statistically related at the significant level (0.05) and correlation coefficients of every dimension are statistically related at the significant level (0.05), this indicates the reliability of the scale internal consistency.

Stability of the scale:
Scale's stability has been calculated using the retail mid-term method that has been followed in calculating the stability of the achievement test and Sperman- Brawn equation has been used to calculate the scale's stability coefficient and it has been found to be (0.87).

Second: the Experimental Study:
The objective of experimenting the research:
The research has aimed at recognizing the impact of teaching the suggested unit for safety and security in sports activities on the students' attainment of the concepts involved in the unit and their attitudes towards the safety and security during the exercising of those activities.

The used Experimental Design:
The current research has used the experimental design with one group. The research variables and methods of their control:
Experimental variable: the suggested unit has included one experimental variable which is the study of the suggested unit about safety and security in sports activities.

Dependent variables: the suggested unit has included two variables: the achievement in the cognitive domain in its first three levels (knowledge - comprehension - application) and attitudes towards safety and security in sports activities.

Non-experimental variables and have included:

Chronological age: in choosing the research group the chronological age of the pupils has been considered to be as close as possible.

Socioeconomic level: "Old Preparatory School For Boys" where the experiment has been applied is located in the city of Sohag and this city includes families with varied economic and social level, but if we look at the distribution of students to classes, we will find that it is random. This refers to the homogeneity of members of the research group to some extent in this aspect.

The density of classes: After excluding the students who failed the previous year, the number of the research group students is (40).

Instructor: physical education teacher in the school has taught the suggested unit after agreeing on participating in the research experiment. The objective of the research experiment and the time plan suggested to be implemented which amounted to (14) periods two lessons a week have been previewed with him.

Applying the suggested unit:

Before starting the teaching of the suggested unit the pre-application of the achievement test and attitudes' scale has been conducted. The suggested unit for safety and security in sports activities has been applied within the internal program of the Physical Education during the break. The implementation of the research treatment has taken about 7 weeks; two periods a week and 30 minutes a period, from 17/10/2009 to 10/12/2009. The teaching of the suggested unit has been undertaken according to the following:

- Explaining the introduction of the unit, objectives and their importance to students.
- Teaching the topics of the unit according to the teacher's guide.
- Not moving from a topic to another until the students answer questions about the topic explained with less than (75%) of the number of pupils.

The post application of the achievement test and attitudes' scale: The application of the achievement test and attitudes' scale has been applied to the research group after the completion of teaching the suggested unit. Then the students' papers have been corrected and answers and the marks have been statistically treated, in order to validate the research hypotheses.

RESULTS AND DISCUSSION

Results related to the research group performance to the performance of the achievement test as a whole:

The results indicate the existence of a statistically significant difference at the level of significance (0.05) between the score averages of students in the pre and post application of the achievement test at the levels of knowledge, comprehension and application and the test as a whole for the benefit of the post application as "T" value amounted to 28.47, 44.75, 64.05 and 83.48 respectively and it is bigger than the value of indexed "T" at a freedom degree (39).

The previous results indicate that the suggested unit has had a clear impact on the high level of students’ achievement of the concepts involved in the levels of knowledge, comprehension and application which makes

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Total score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- knowledge</td>
<td>**0.96</td>
</tr>
<tr>
<td>2- comprehension</td>
<td>**0.96</td>
</tr>
<tr>
<td>3- application</td>
<td>**0.90</td>
</tr>
</tbody>
</table>

Correlation coefficients (R) when N = (40) and significance level (0.05) = 0.33

<table>
<thead>
<tr>
<th>Scale dimensions</th>
<th>Scale as a whole</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthy requirements in playing environment</td>
<td>**0.91</td>
</tr>
<tr>
<td>Clothes and suitability for exercise</td>
<td>**0.98</td>
</tr>
<tr>
<td>Warm-up and its importance</td>
<td>**0.95</td>
</tr>
<tr>
<td>Commitment to laws of playing</td>
<td>**0.95</td>
</tr>
<tr>
<td>Relaxation and rest</td>
<td>**0.95</td>
</tr>
<tr>
<td>Healthy food</td>
<td>**0.98</td>
</tr>
<tr>
<td>First aid</td>
<td>**0.96</td>
</tr>
<tr>
<td>The importance of complaining to the teacher or parents about injury or illness</td>
<td>**0.95</td>
</tr>
</tbody>
</table>

Correlation coefficient (R) when N = 40 and significance level (0.05) = 0.33
Table 3: Significance of the difference between the score averages of the research group in the Pre and post applications of the achievement test as a whole and its three levels. N = 40

<table>
<thead>
<tr>
<th>Application</th>
<th>Average scores</th>
<th>Standard deviation</th>
<th>Value of calculated &quot;T&quot;</th>
<th>Value of indexed &quot;T&quot;</th>
<th>Freedom degree</th>
<th>Significance level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post knowledge</td>
<td>4.20</td>
<td>1.04</td>
<td>28.47</td>
<td>2.02</td>
<td>39</td>
<td>(0.05)</td>
</tr>
<tr>
<td>Post knowledge</td>
<td>10.85</td>
<td>1.18</td>
<td>44.75</td>
<td>2.02</td>
<td>39</td>
<td>(0.05)</td>
</tr>
<tr>
<td>Pre comprehension</td>
<td>4.60</td>
<td>1.17</td>
<td>28.47</td>
<td>2.02</td>
<td>39</td>
<td>(0.05)</td>
</tr>
<tr>
<td>Post comprehension</td>
<td>16.52</td>
<td>1.26</td>
<td>44.75</td>
<td>2.02</td>
<td>39</td>
<td>(0.05)</td>
</tr>
<tr>
<td>Pre application</td>
<td>2.82</td>
<td>1.03</td>
<td>64.05</td>
<td>2.02</td>
<td>39</td>
<td>(0.05)</td>
</tr>
<tr>
<td>Post application</td>
<td>14.85</td>
<td>0.92</td>
<td>83.48</td>
<td>2.02</td>
<td>39</td>
<td>(0.05)</td>
</tr>
<tr>
<td>Pre as whole</td>
<td>11.62</td>
<td>1.33</td>
<td>83.48</td>
<td>2.02</td>
<td>39</td>
<td>(0.05)</td>
</tr>
<tr>
<td>Post as whole</td>
<td>42.22</td>
<td>1.73</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4: Significance of the difference between the score averages of the research group in the pre and post applications of the attitudes' scale

<table>
<thead>
<tr>
<th>Application</th>
<th>Average scores</th>
<th>Standard deviation</th>
<th>Value of calculated &quot;T&quot;</th>
<th>Value of indexed &quot;T&quot;</th>
<th>Freedom degree</th>
<th>Significance level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>99.75</td>
<td>1.67</td>
<td>412.63</td>
<td>2.02</td>
<td>39</td>
<td>(0.05)</td>
</tr>
<tr>
<td>Post</td>
<td>258.35</td>
<td>1.81</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5: Average increase ratio to measure the effectiveness of the suggested unit

<table>
<thead>
<tr>
<th>Test</th>
<th>Number of pupils</th>
<th>Average scores of the pre application</th>
<th>Average scores of the post application</th>
<th>Maximum end</th>
<th>Increase ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achievement test</td>
<td>40</td>
<td>11.63</td>
<td>42.23</td>
<td>46</td>
<td>1.56</td>
</tr>
<tr>
<td>Attitudes' scale</td>
<td>99.58</td>
<td>258.35</td>
<td>264</td>
<td></td>
<td>1.57</td>
</tr>
</tbody>
</table>

it possible to accept the validity of the first hypotheses of the research hypotheses.

**Results on the Performance of the Research Group on the Attitude's Scale:** The results indicate the existence of a statistically significant difference at the level (0.05) between the students' score averages in the pre and post application in the attitudes' scale, for the benefit of the post application, as the value of the calculated “T” amounted to 412.63 when and it is bigger than the value of indexed "T" at a freedom degree (39).

This indicates that the suggested unit had a positive impact on the attitudes of pupils in the research group about their safety and security during sports activities and thus can accept the validity of the second hypothesis of the research hypotheses.

**The Results of Measuring the Effectiveness of the Suggested Unit:** The results of Table 5 show that the rate of increase in the results of both the achievement test and attitudes' scale has been higher than the threshold set by Blake to accept the effectiveness which is 1.2 and this indicates the effectiveness of the suggested unit for safety and security in sports activities in the development of both cognitive achievement of the concepts involved and the attitude towards safety and security and that the students of the research group and, therefore, we can grant the validity of the third hypothesis of the research hypotheses.

**Discussing and Interpreting the Results of the Study:** Considering the previous results, we can explain the increase level of students' achievement of concepts related to safety and security during sports activities and their acquiring of positive attitudes towards the safety and security during the exercise of those activities, in the light of the following:

- Suggested unit for safety and security in sports activities - its topics have included clear and specific behavioral objectives - has helped choose the appropriate content of the concepts, skills and attitudes associated with safety and security during the exercise of activities of various sports, which helped in turn to achieve the desired goals.
- The unit suggested to guaranteed knowledge, concepts and functional skills related to safety and security during sports activities, where the focus has been directed towards the employment of such
information and skills and their application to practical situations in order to achieve safety and security of pupils during the exercise of activities of various sports.

- The suggested unit for safety and security in sports activities treats topics related to the interests of students of the research sample and meets their needs and the requirements of their development in adolescence.
- The teaching method that is based on the dialogue and discussion has helped the interaction of students to participate in the teaching and learning process.

REFERENCES