



The Effect of Seven Steps Strategy (7steps) on Developing Environmental Awareness: Applied Study to Middle Stage Students in United Arab Emirates

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Received: 16-11-2023 Revised: 13-12-2023 Accepted: 22-12-2023
Published: 16-2-2024

DOI: 10.21608/JSRE.2023.248867.1620

Link of paper: https://jsre.journals.ekb.eg/article_332866.html

Abstract

Objective - The aim of this study is to investigate the effect of Seven Steps Strategy (7steps) on developing environmental awareness of middle stage students in United Arab Emirates. **Design /Methodology/ Approach** Researcher employed a descriptive-analytical methodology, with the questionnaire as the primary data collection tool. The study population consisted of middle stage in United Arab Emirates, and the study sample included (400) students. The researcher utilized the SPSS program for data analysis. **Findings:** Significant relationship between the study variables, Seven Steps Strategy (7steps), and developing environmental awareness among middle stage students in United Arab Emirates. A significant impact of the Seven Steps Strategy on developing environmental awareness among middle stage students in United Arab Emirates. **Recommendations:** Encouraging schools in United Arab Emirates to adopt Seven Steps Strategy (7steps) for middle stage students. Applying this study in other Arab countries.

Keywords: *Seven Steps Strategy, Developing Environmental Awareness, Middle stage students.*

تأثير استراتيجية الخطوات السبع (7steps) فى تنمية الوعى البيئى بالتطبيق على طلاب
المرحلة المتوسطة بدولة الإمارات العربية المتحدة

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المستخلص:

تهدف هذه الدراسة إلى التعرف على تأثير بين تأثير استراتيجية الخطوات السبع (7steps) فى تنمية الوعى البيئى بالتطبيق على طلاب المرحلة المتوسطة بدولة الإمارات العربية المتحدة، واستخدم الباحث المنهج الوصفى التحليلى، والاستبانة كأداة رئيسية لجمع البيانات وتكون مجتمع الدراسة من طلاب المرحلة المتوسطة بدولة الإمارات العربية المتحدة، وبلغت عينة الدراسة (٤٠٠) طالب، واستخدم الباحث برنامج (SPSS) لتحليل البيانات، وتوصلت الدراسة للنتائج التالية: وجود علاقة ارتباط معنوية بين متغيرى الدراسة استراتيجية الخطوات السبع (7steps) وتنمية الوعى البيئى لدى طلاب المرحلة المتوسطة بدولة الإمارات العربية المتحدة، وجود تأثير معنوى لاستراتيجية الخطوات السبع (7steps) على تنمية الوعى البيئى لدى طلاب المرحلة المتوسطة بدولة الإمارات العربية المتحدة، وأوصت الدراسة بعدد من التوصيات منها: تشجيع المدارس على تبنى استراتيجية الخطوات السبع (7steps) لطلاب المرحلة المتوسطة بدولة الإمارات العربية المتحدة، تطبيق هذه الدراسة فى دول عربية أخرى.

الكلمات المفتاحية: استراتيجية الخطوات السبع (7steps)، تنمية الوعى البيئى، طلاب المرحلة المتوسطة بدولة الإمارات العربية المتحدة.

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Introduction

The subject of thinking, developing it, and stimulating creativity has become the focus of attention of most institutions, because providing trainees with thinking skills enables them to face contemporary life and its challenges. Most people feel helpless in the face of life's various situations and problems, and this is a study into the reasons for the inability to solve these problems and ways to address them, as Most people do not think creatively as much as they repeat habitual patterns of thinking. The reason for this is that we have trained our minds to take shortcuts of thinking, and throughout our lives we continue to learn more and more shortcuts of thinking that help us speed up the completion of usual activities to free up more time for other activities. (Moussa, 2015)

The Seven Step Curriculum is an educational curriculum that assists in stimulating memory and developing learning skills, as well as improving students' knowledge and fostering academic achievement. (Moussa, 2015)

Nowadays we have witnessed an increased environmental awareness performed by society, government, and scientists. This increased behavior is a result of the Covid-19 pandemic that has become a threat to people's health, thus a threat to the world. Human-environment interaction deals with the fulfillment of food and resource demand. It goes further to how humans treat and affect the environment. (Handayani et.al, 2021)

Environmental awareness constitutes an ultimate drive to green behavior. Green behavior is a pro-environmental behavior. There is a cause-effect relationship between individual environmental awareness and pro-environmental behavior. An individual who applies a strong environmental value tends to be aware of how his/her behavior affects the environment. This is to justify that environmental awareness leads to pro-environmental behavior. (Mkumbachi et. al., 2020)

The research concentrates on the effect Seven Steps Strategy (7steps) on developing environmental awareness and investigate the relationship between

them. Applied on middle stage students in United Arab Emirates. The researchers believe this sector is vital at the UAE national and economic levels. Moreover, the research study (7steps) and how could affect environmental awareness in the educational sector.

1) Conceptual Definitions:

1.1) Independent Variable: Seven Steps Strategy (7steps)

It is referred to as an educational Curriculum with the goal of enhancing both life and cognitive skills, aiding in the stimulation of students' memory. (Moussa, 2015)

1.2) Dependent Variable: Environmental Awareness

It can be defined as the ability to understand environmental issues and respective actions one needs to take to reach the good practice for realizing a sustainable environment. (Handayani et.al, 2021)

2) Exploratory Research

In this section, the researcher discusses the literature that investigated research variables: Seven Steps Strategy (7steps) and Environmental Awareness to explore the academic gap. Researcher also discusses the results of the pilot study to assess the practical problem in the field of application as follows:

2.1) Literature review:

Researchers review a set of previous studies related to the independent variable:

A. Seven Steps Strategy (7steps)

1) (Selim,2023)

The research aimed to determine the impact of Seven Steps curriculum (7steps) on self-confidence applying to students of the Ibn Al-Jazri Institute - Akshkala - Urfa, Turkey. The research sample consisted of (27) male and female students aged between 12 and 15 years old. The study depended on the experimental approach for the single group. The research tool was a self-confidence questionnaire prepared by the researcher and its validity and

reliability were verified. The research results showed statistically significant differences at the 0.05 level of significance between the mean scores of the experimental group in the pre-test and post-test attributed to the Seven Steps curriculum in favor of the post-test. Considering the research's results, several recommendations were proposed, including encouraging school administrations and educational institutions to implement the Seven Steps curriculum for their students.

2) (Ismail & El-Sayed, 2023)

This research aimed to identify the effectiveness of seven-step curriculum (7steps) on academic achievement by applying mathematics of private school students in Cairo. The sample of this research consisted of (40) students from the third grade of middle school who are affiliated with schools (Sunshine, Al-Aliaa, Al-Orouba) in Cairo Governorate for the academic year (2022/2023). Research relied on the semi-experimental curriculum for one group. The research tool was an achievement test, which was prepared by two researchers in mathematics, and its validity and reliability were verified. The results of the research showed that there are statistically significant differences at the level of significance (0.05) between the mean scores of the experimental group members in the pre and post applying due to the seven-step curriculum (7steps) in the favor of the post applying.

3) (Yassin & Ibrahim, 2023)

This research aimed to examine the nature of the relationship between the Seven-Step Curriculum and leadership skills applied to middle stage students in the Kingdom of Saudi Arabia. Researcher employed a descriptive-analytical approach and used a questionnaire as the primary data collection tool. Research population included all middle stage students in Saudi Arabia, with a sample size of (384) students. Researcher utilized the SPSS software for data analysis. The results of research showed that there is a significant correlation between Seven-Steps Curriculum (7steps) and leadership skills among middle stage students in the Kingdom of Saudi Arabia.

4) (Abdou, 2022)

This research aimed to investigate the effect of applying the seven-step curriculum (7steps) on academic excellence. It was conducted on third-year

middle school students at Euromed Academy of Humanities in the Kingdom of Norway. The researcher used a single-group experimental design and employed the two books of the 7 Steps Method (The Emotional Mind and The Logical Mind) as well as a self-designed questionnaire for academic excellence. The study sample included (45) students. The results of research indicated statistically significant differences in favor of the application of the seven-steps curriculum, particularly related to Book I and II (Emotional Mind and Logic Mind), in promoting academic excellence.

5) (Moussa, 2020)

This research aims to determine the impact of the seven-step curriculum (7steps) on learning motivation. The research was conducted on middle school students in Norway who were enrolled at the Euromed Academy for Humanities and researcher used the experimental method for two groups (control and experimental). The research sample consisted of (30) students. The results indicated statistically significant differences in favor of the experimental group in enhancing learning motivation.

Researchers review a set of previous studies related to the dependent variable:

B. Environmental Awareness

1) (González & et. al., 2022)

This study contributes to the literature about the application of responsible entrepreneurship by entrepreneurs and to their contribution to economic and responsible growth. Quantitative research was carried out with data collection based on a questionnaire to 1337 students from Oviedo University (North of Spain) and factorial analysis and statistical regression techniques were applied to analyze the data. The results revealed that environmental awareness exerts a positive and significant effect on the entrepreneurial intention of the students and how important it is to adopt measures to avoid waste, dumping and emissions. It has also been validated that the perception of the importance of ecological consumption intervenes in the relationship between environmental awareness and entrepreneurial initiative. Finally, it can be stated that the fact of having entrepreneurial family members reinforces the entrepreneurial intention of the students.

2) (Wardhana, 2022)

This research investigates the determinant factors of university student sustainable consumption, green behavior and environmental awareness in Daerah Istimewa Yogyakarta Province, Indonesia. To understand more about university student perspectives, a study was held related to how environmental awareness affects sustainable consumption and green behavior of university students. The focus of this research, in general, is to investigate the influence of environmental awareness among university students and examine sustainable consumption and green behavior among university students during their study time. This study begins with a survey of 185 undergraduate students using an online questionnaire. The multiple linear regression models indicated that environmental awareness significantly influenced sustainable consumption. Furthermore, the findings also indicated the significant impact of environmental awareness on green behavior among university students. This study suggests considering expanding the sample and scope of the research and assessing the linkage of behavior to the individual action for further research.

3) (Novotný, 2021)

The research focuses on the evaluation and comparison of environmental awareness and its factors among students at the University of Presov in Presov, Slovakia. Based on the results of this research, social networks and the internet are used as the main source of environmental information and should be used as a means of raising environmental awareness among students. The students at the University of Presov achieved high environmental awareness within the cognitive and emotional factors of environmental awareness, but they achieved only moderate environmental awareness within the behavioral factor. There were no significant differences in the level of environmental awareness between male and female students at the University of Presov. From the point of view of the group of study fields variable, significant differences were found in the emotional and behavioral factors of environmental awareness, with students of "Humanities" and "Natural Sciences, Mathematics and Informatics" achieving the highest scores and students of "Social, Economic and Legal Sciences" and "Healthcare" achieving the lowest scores.

4) (Geng & He, 2021)

This research studied the impact of environmental regulation and environmental awareness on environmental governance satisfaction by an ordered profit model. The research found that environmental regulation has a significant positive impact on environmental governance satisfaction, while environmental awareness has a significant negative impact on environmental governance satisfaction. We also found that when public environmental awareness is considered, the positive relationship between environmental regulation and environmental governance satisfaction is affected. The robustness test proved this conclusion.

5) (Arshad & et. al., 2020)

This research concluded that university students from four universities in Pakistan had a high level of environmental awareness, environmental concerns and environmental behavior, but a very low level of environmental attitudes. The environmental awareness and environmental interests of university students contribute positively to the formation of their environmental behavior, but the environmental attitudes contribute negatively. There were significant differences in the levels of environmental awareness, concern, attitudes, and behavior between students in the five academic disciplines (arts and humanities, social sciences, physical sciences, biological sciences, and environmental sciences). The biological sciences were ranked at the top of environmental awareness, environmental attitudes, environmental concern, and environmental behavior. Environmental sciences claimed second place in most cases, physical sciences in the third, arts and humanities in the fourth and social sciences in the last place in most cases.

6) (Handayani & et.al., 2021)

The purpose of this literature review is to review and explore the results of previous research and other literature related to environmental awareness and pro-environmental behavior. The research method used is a literature review. This study presents antecedents of Environmental awareness. Environmental awareness is very important to realize environmental protection behavior. The results of previous research indicate that environmental awareness has a significant role in building pro-environmental behavior. Someone will protect the environment if he realizes that the environment around him needs to be protected.

Environmental awareness has a positive correlation with pro-environmental behavior. If someone has high environmental awareness, the pro-environmental behavior will also be higher.

7) (Chen & et. al., 2019)

This research investigates the impacts of environmental awareness on environmental quality and income pollution relationship. For their theoretical analysis, they examine a non-cooperative transboundary pollution control game between a less developed country (LDC) and a more developed country (MDC) and find that a higher level of environmental awareness by the government and citizens of the LDC has comprehensively beneficial effects on environmental policy and regional environmental quality. It also flattens the environmental Kuznets curve (EKC) and shifts it to the left. Their empirical findings confirm the theoretical projections. In the LDCs, environmental awareness plays an influential role in determining environmental expenditure; also, EKCs arrive at the peaks earlier, in countries where the public has higher environmental awareness.

Based on the above, the hypotheses can be developed as follow:

H1: There is a significant positive relationship between Seven Steps Strategy (7steps) and environmental awareness.

H2: There is a significant positive effect of Seven Steps Strategy (7steps) on environmental awareness.

2.2) Academic gap:

The findings of previous studies show that environmental awareness raising is an important part of education for sustainable development. Actions can be taken in a variety of areas to increase environmental awareness for sustainable education. Some of these categories are environmental legal rights and responsibilities, associated consequences, use of the media, awareness raising campaigns, incorporation of environmental issues in mainstream education. The previous studies conducted on different sectors and even different industries such as the studies of (Handayani & et. al., 2021) (Wardhana, 2022), (Chen & et. al., 2019). The researcher sees that previous studies had more conducted on the sectors of society are involved in environmental awareness. Moreover, there are also a few studies explored environmental awareness through students at

university such as the studies of (González & et. al., 2022), (Novotný, 2021), (Arshad & et. al., 2020). The studies about Seven Steps Strategy (7steps) applied to education sector have not been done enough, so the researcher observed that the study of Seven Steps Strategy (7steps) in this sector will be interesting and to figure out how these students and educational establishments can improve and enhance their environmental awareness by Seven Steps Strategy (7steps). Where this research concentrates on the use of each component of Seven Steps Strategy (7steps) and how could affect environmental awareness, it shows the level of importance of each component concerning the Seven Steps Strategy (7steps). In addition, the research reveals the use of the (7steps) on middle stage students in United Arab Emirates

2.3) Exploratory Study & Practical Problem

To identify the research problem, researchers conducted an exploratory study on a group of middle stage students in United Arab Emirates. The exploratory study has been conducted from October **15th** to October **26th**, 2023, and the structure of the study aimed to identify the extent to which the use of Seven Steps Strategy (7steps) effectively and how could affect developing environmental awareness. The researcher directed some close-ended questions to randomly selected (25) students from middle stage students in United Arab Emirates.

The exploratory study revealed the following:

- 71% of middle stage schools don't know Seven Steps Strategy (7steps).
- 66 % of middle stage students are not aware of how Seven Steps Strategy (7steps) is worked.
- 31% of them don't know Environmental Awareness.

Based on the previous discussion, researcher concludes that:

- 1) Most schools lack awareness of using Seven Steps Strategy (7steps) effectively.
- 2) Most students lack knowledge of using Seven Steps Strategy (7steps) in their life.
- 3) Some students don't know how important environmental awareness is.

3) Research Problem & Questions

Based on the Exploratory Research, the current research investigates How could Seven Steps Strategy (7steps) affect environmental awareness on middle stage students in United Arab Emirates?

Based on the previous general question, current research is trying to answer the following questions:

Q1. What is the nature of the relationship between Seven Steps Strategy (7steps) and environmental awareness?

Q2. What is the nature effect of Seven Steps Strategy (7steps) on environmental awareness?

4) Research objectives

1) This study attempts to Present an overview of the components of (7steps) as well as developing environmental awareness.

2) Exploring the proper effect of Seven Steps Strategy on what middle stage schools do and what information they need for developing environmental awareness for students.

3) Determining whether Seven Steps Strategy will be valuable tools and how they should be designed.

4) This study is cause and effect in nature and seeks to answer the following research objectives:

RO1. To identify the nature of relationship between Seven Steps Strategy (7steps) and environmental awareness.

RO2. To measure the effect of Seven Steps Strategy (7steps) on Sales environmental awareness.

5) Research hypotheses

H1: There is a significant positive relationship between Seven Steps Strategy (7steps) and environmental awareness.

H2: There is a significant positive effect of Seven Steps Strategy (7steps) on environmental awareness.

6) Research Significant

Environmental problems have gained global importance, even though they were previously considered to be local or regional issues, because they now affect economic growth, health, nature, and aesthetics. The consumption of resources for products made for the global market, largely controlled by the Northern hemisphere, primarily leads to local environmental damage rather than global issues. Every person deserves a good quality of life, but there are environmental factors that currently hinder the achievement and enjoyment of such a life.

The importance of the study can be explained at both the scientific and practical levels as follows:

A. Theoretical importance: This study derives its scientific importance from the following:

1) The results of the study may contribute to enriching information and increasing knowledge on the topics of the seven-step strategy (7steps) and environmental awareness, which are considered important topics.

2) Helping to open the way for researchers to further study and analyze the two variables of the study through the results and recommendations of the study.

B. Practical importance:

1) Providing a scientific framework for those responsible for the middle stage schools, through which they can become familiar with the variables, which helps in drawing up a methodology that works to provide an appropriate climate for the educational process.

2) The current study presents a suggested framework when applied to raise the level of efficiency and effectiveness of environmental awareness of middle stage students in UAE.

7) Research Limits:

The limits of the research are as follows:

1) Objective limitations: Studying the relationship between the 7 steps strategy ("Critical Mind"), which represents the sixth book of strategy, and environmental awareness, without considering the study of the rest of the factors that could have an impact on environmental awareness.

2) Human limits: This research is limited to a sample of middle stage students in UAE.

3) Time limits:

4) This research was conducted in the year 2023 - 1445.

8) Research Methodology

Based on the nature of the research and the goals it pursues; This study is based on the method of analytical description, which is one of the methods commonly used in research and human learning, through which it attempts to describe the phenomenon under study. Because it is the most appropriate method for achieving research objectives accurately and objectively, it depends on careful observation and tracking, quantitative or qualitative, of a specific phenomenon or event during a specific period, one or several periods, to identify phenomena or events in context, and to draw conclusions and generalizations that help to Understand and develop reality.

9) The theoretical framework

In order to understand the underlying principles and guiding concepts that inform the research variables, it is crucial to establish a solid theoretical framework that will serve as the intellectual foundation for our exploration."

Independent variable: Seven steps strategy (7steps):

An educational system creates a comprehensive methodological framework comprising five primary dimensions. Each dimension plays a crucial role and interacts with the others to accomplish the goals mentioned in the preceding paragraph. These dimensions encompass perceptual, cognitive, exploratory, evaluative, and coordination aspects. By incorporating these five dimensions, the educational system aims to provide a comprehensive and multifaceted learning

experience, ensuring that students not only acquire knowledge but also develop critical skills and a deep understanding of the subject matter.

1) The concept of Seven steps strategy (7steps):

Table (1)
Key concepts of (7steps)

Definitions	Researcher
It is a curriculum that aims to provide students with comprehensive skills that enable them to successfully interact with different aspects of life and achieve balanced personal growth.	(Ismail and Elsayed,2023)
A comprehensive development strategy for building personality and enhancing capabilities.	(Yassin & Ibrahim, 2023)
It is an integrated curriculum for the development of middle and secondary students' life skills.	(Abdou, 2022)
It is an educational Curriculum with the goal of enhancing both life and cognitive skills, aiding in the stimulation of students' memory.	(Moussa, 2015)

Source: Prepared by researchers based on previous studies.

2) The curriculum has a variety of unique features (Abdou, 2022):

a. A curriculum introduces a new educational system aimed at providing young individuals with essential life skills, developing, and deepening them to the point where each skill becomes an integral part of their personal development and mental skills are at the forefront of those skills.

b. An educational system that establishes a comprehensive structured framework consisting of five main dimensions. Each of these dimensions represents a significant aspect that integrates with others to achieve the objectives mentioned earlier. These dimensions include (the perceptual dimension, the cognitive dimension, the exploratory dimension, the evaluative dimension, and the coordinating dimension).

c. The curriculum is relying on stimulating the largest number of senses among students as it contains over 400 activities to develop the seven minds of the student.

d. Advanced techniques are included at the beginning of the training day to prepare the mind for the training process.

e. The curriculum focuses on movement games, or the curriculum focuses on physical games.

f. "Parents' Guide" aims to foster integration between the trainer and parents, ultimately leading to the achievement of the goals.

3) The curriculum relies on six tools to achieve its objectives (Moussa, 2015):

1. Trainer's Guide
2. Trainee's Guide
3. Guide for pre- and post-implementation measures specific to the curriculum.
4. Strategies Guide
5. Parent's Guide
6. Reinforcement Methods Guide

4) The main specific skills included in (7steps) are:

Table (2)
The most important skills of (7steps)

Num	The book	Key Interactive Objectives
1	The emotional Mind	Self-awareness skills (understanding one's feelings - expressing one's feelings - identifying strengths and weaknesses) Emotion control skills (finding a blessing behind every anger - techniques for emotional control...) Self-motivation skills (goal setting - identifying limiting beliefs). Interpersonal awareness skills (reading emotions - levels of perception - empathy - detecting hidden emotions...) Relationship management skills (dealing with individuals with low moral standards - understanding different perspectives, facts, opinions, and illusions - the value of selflessness - the value of smiling - nonverbal communication - the value of friendship).
2	The logical mind	(Memory skill - priority skill - observation skill - deduction skill - Classification skill - harvest skill - comparison skill - substitute skill - summary skill)
3	The imaginative mind	(Similarity Detection Skill- Anticipation skill - Identifying Differences skill).

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Continue table (2)

4	The creative mind	Creative mind habits (perseverance - Observational Power - listening - love of knowledge) - Creative thinking skills (bat strategy - rope strategy - between me and you - plane strategy).
5	The positive Mind	Habits of Success (Habit of Responsibility and Collaboration - Self-Organization - Time Management - Initiative - Adaptability) of the Tender Laws (Law of Giving - Law of Gratitude).
6	The critical mind	Topic understanding and identification skills (Topic understanding and identification skills (Identifying Main and Sub Ideas - Analyzing Missing Information - Distinguishing Relevant and Irrelevant Information) Topic analysis and criticism skills (Evaluating Information Credibility - Identifying Contradictions - Discovering Generalizations - Analyzing Relationships and Motivations - Identifying Logical Thinking - Detecting Bias - Differentiating Between Introductions and Conclusions) Skills of Making Judgments (Skill of Pros and Cons - Skill of Option Categorization)"
7	The Leader Mind	Goal Setting Skill - Planning Skill - Decision Making Skill - Problem Solving Skill - Meeting Management Skill - Listening Skill - Team Management Skill

Source :(Moussa, 2015)

5) The Learning Outcomes of (7 Steps):

**Table (3)
The Key Objectives of (7steps)**

Num	The book	the most important skills
1	The emotional Mind	The student should understand the importance of self-awareness. The student can understand himself and his feelings. The student is keen to control his emotions. The student should exercise specific skills to control emotions. The student recognizes the difference between internal and external stimulation. The student can understand the feeling of others.

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Continue table (3)

2	The logical mind	<p>The student should be aware of techniques for developing memory and observation skills.</p> <p>The student should have the ability to infer conclusions from introductions.</p> <p>The student should be capable of identifying the positive and negative aspects of different ideas and situations.</p> <p>The student should be able to address factors related to the situation.</p> <p>The student should recognize the logical consequences resulting from the decisions they make in their life.</p> <p>The student should be able to identify alternatives and possibilities available to them for dealing with situations.</p>
3	The creative mind	<p>The student should understand the concept of creativity and the characteristics of creative individuals.</p> <p>The student should be capable of conveying a greater number of ideas.</p> <p>The student should have the ability to shift their mental perspective and move between different thinking patterns.</p> <p>The student should be able to give details that contribute to the development of a specific idea.</p>
4	The imaginative mind	<p>The student should understand the significance of imagination and its different types.</p> <p>The student knows the steps of the imagination process.</p> <p>The student should be capable of generating ideas.</p> <p>The student should lean towards a love for exploration and challenges.</p>
5	The positive Mind	<p>The student should have confidence in their ability to overcome obstacles they encounter.</p> <p>The student should be aware of the laws of happiness.</p> <p>The student recognizes the risk of negative thinking.</p> <p>The student should be able to find an opportunity within every crisis.</p> <p>The student should be capable of setting successful and realistic goals.</p> <p>The student should have the ability to organize himself.</p>

Continue table (3)

6	The critical mind	The student should be able to assess the essential information. The student should have the ability to deduce using various pieces of evidence. The student can base judgments on reasonable and open grounds. The student should be able to form judgments based on rational and open-minded reasons. The student should be capable of analyzing the ideas.
7	The Leader Mind	The student should be able to plan tasks. The student should be able to solve problems based on scientific principles." The student should excel in meeting management skills. The student should be capable of team management. The student should be able to motivate others.

Source: (Moussa, 2015)

Dependent variable: Environmental Awareness

1) The concept of Environmental Awareness:

The environment is a medium for the society to live and influence each other, consequently, to maintain their existence, they must always meet their needs from the environment. However, when the interaction between human needs and the environment begins and along with population growth, that need is now increasing rapidly.

Table (4)
Key concepts of (Environmental Awareness)

Definitions	Researcher
The attitude regarding environmental consequences of human behavior.	(Ham & et. al., 2016)
Environmental awareness can be defined as a conscious behavior towards the environment like pro-environmental behavior.	(Carmi, 2013)
Environmental awareness is the environmental knowledge and concepts that individuals possess in how to deal with and protect the environment, represented by the correct positive behaviors that work to preserve it.	(Ahmet & et. al., 2014)

Continue table (4)

Environmental awareness as the science which helps people attain the value, skills, and knowledge required to live sustainably	(Enger & Smith, 2013)
predisposition to react to environmental issues in a certain manner. It is an element of one's own individual system of values and beliefs and it a part of social awareness.	(Culiberg & Rojšek, 2008)

Source: Prepared by researchers based on previous studies.

These are some of definitions that mentioned in previous studies which help researchers to make an operational definition of environmental and define it as

(Environmental awareness is the collective understanding and knowledge individuals share, guiding them in adopting correct and positive behaviors to effectively address, manage, and safeguard the environment. This shared awareness actively contributes to ongoing efforts aimed at preserving and protecting the delicate ecological balance of the natural world.)

1) The issue of achieving environmental awareness

It is represented by its three sides the state and its organs , the society with all its institutions , and the individuals who constitute the protectors of the environment in the event the availability of knowledge , awareness and correct understanding of their role towards the environment , or those who work to pollute it in the absence of awareness, misunderstanding and loss of a sense of responsibility towards the environment (Royo et.al. , 2014)

2) The objectives of environmental awareness:

Developing a sense of responsibility among individuals towards their environment and to give them the necessary awareness to be able to deal with it property, protect it, maintain its components and elements, avoid harmful practices, address problems and develop solutions to them to rise to the level of environmental safety, which requires concerted efforts from all members of society, and state institutions (Ono and Maeda, 2014; Scruggs and Moore, 2016).

3) The importance of environmental awareness:

Environmental awareness plays a vital role in developing people's understanding of the environment to encourage them to become responsible members of a country that cares about the environment:

3.1) The environmental awareness is very Important in human life because the environment is the place in which he lives, practices his activities and his relationship with others, so it is necessary to preserve it and not tamper with it (Aydin and Kaya, 2011; Kamal, 2013).

3.2) Environmental sustainability may be achieved when environmental awareness is performed in an integrated manner by all elements of the people, such as the scientists, engineers, and other communities. (Agarwal ,2018)

3.3) (Hanisch et.al, 2014) argue that such environmental awareness is very important in environmental management and the protection of living creatures. Moreover, environmental awareness may have a more powerful effect when implemented.

3.4) Preserving and protecting the environment depends largely on the awareness of individuals by following positive behaviors in the way they deal with their environment. In fact, with the increase and exacerbation of environmental problems, we find it necessary to spread environmental awareness among members of society and develop a sense of responsibility towards their environment to be able to deal with it in a sound and healthy manner and not to tamper with it. (Prechel, 2015; Ozdemir, 2016)

3.5) Environmental awareness plays a significant role in building people's awareness of the environment and becomes a responsible part of the country that cares about the environment. (Wan et al. ,2014) argue that one with a higher education tends to have a better understanding and awareness of the environment, compared to one with lower education. Meanwhile, (Pena et. al., 2018) found that local issues would be more influential in the construction of pro-environmental behavior than the regional or national issues would be. The integration of environmental issues in one area can improve education and be translated to positive environmental behavior.

4) The fields covered by environmental studies are as follows.

1. The multidisciplinary nature of environmental studies
2. Natural resources and associated problems.

3. Eco systems.
4. Biodiversity and its conservation.
5. Environmental pollution.
6. Social issues and the environment.

The following table illustrates the characteristics factors of environment awareness among communities.

Table (5)
The characteristics factors of environment awareness among communities

Knowledge	Practice
Solid waste disposal	Actions involving law
Toxic waste disposal	Reduce waste
Contamination of fresh water	Being a responsible user
Excessive exploitation of natural resources	Improve knowledge to protect the environment
Marine pollution	Preservation of natural resources
Global warming	
Logging	
Extinction of species of flora and fauna	
Air pollution	

Source: Prepared by researchers based on previous studies.

10) Research tools:

1- (Critical Mind Scale) (Moussa, 2015)

The scale consists of (12) statements. The researchers extracted the implications of the apparent validity of the scale by presenting it to (7) arbitrators who were professors of psychology and education at Mansoura University.

2- Environment Awareness (Yahya et. al., 2022)

The scale consists of (19) statements, and the two researchers extracted the implications of the apparent validity of the scale by presenting it to (7) arbitrators of management professors.

11) Research population and sample:

Research population:

The current research adopts the descriptive approach that aims to reveal the nature of the relationship between seven-step strategy (critical mind) (skills of understanding and identifying the topic - skills of analyzing and conveying the topic) and Environment Awareness among middle school students in United Arab Emirates.

Research sample:

The sample consisted of (400) male and female of middle school students in United Arab Emirates.

The following is a description of the characteristics of the study sample and the demographic variables: Below we review in tabular and graphical presentation the demographic characteristics of the research sample members, in terms of gender, Stage of education, original residence, table (6) indicates demographic characteristic of the whole sample.

Table (6)
Demographic characteristic of the whole sample

Variables	Frequency	Percentage
Gender-١	٠N	%
Male	١٦٦	٤١,٥
Female	٢٣٤	٥٨,٥
Total	٤٠٠	١٠٠
education of Stage-٢	NO	%
Grade First	١٤٩	٣٧,٢٥
Grade Second	١٣٥	٣٣,٧٥
Grade Third	١١٦	٢٩
Total	٤٠٠	١٠٠
residence Original-٣	NO	%
Urban	٣٥٤	٨٨,٥
Rural	٤٦	١١,٥
Total	٤٠٠	١٠٠

Source: Prepared by the researcher according to statistical analysis.

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12) Findings:

**Table (7)
The students' views and concepts on the importance of environmental awareness**

Items	Frequency	Percentage
1. How do you value your environmental awareness?	·N	%
good Very	٣٨	٩,٥
Good	١٩٤	٤٨,٥
Weak	١٦٨	٤٢
Total	٤٠٠	١٠٠
2. How to describe your environmental reality?	·N	%
good Very	٧	١,٧٥
Good	٩٥	٢٣,٧٥
Weak	٢٩٨	٧٤,٥
Total	٤٠٠	١٠٠
3. What is your satisfaction with the cleanliness of your School?	·N	%
satisfied Not	٣٨	٩,٥
heavily Satisfied	٢٣٦	٥٩
satisfied Somewhat	١٢٦	٣٧
Total	٤٠٠	٣١,٥
4. What do you think institutions that deepen the concepts of maintaining the cleanliness of environment?	·N	%
Family	١٣٢	٣٣
institution Educational	٦٠	١٥
Media	١١٥	٢٨,٧٥
Legislation Legal	٤٥	١١,٢٥
Mosque	٤٨	١٢
Total	٤٠٠	١٠٠
5. How satisfied you are with the student's behavior in maintaining the cleanliness of School?	·N	%
satisfied Not	١٨٢	٤٥,٥
heavily Satisfied	٥٦	١٤
satisfied Somewhat	١٦٢	٤٠,٥
Total	٤٠٠	١٠٠
6. What are the difficulties faced by the school to keep its environment clean?	·N	%
A few employees on the service and cleanliness of the school.	٩٨	٢٤,٥
Poor student awareness of the importance of preserving the school environment.	١٤٥	٣٦,٢٥
Lack of deterrent laws for violators	٨٢	٢٠,٥
Severe short comings of competent authorities and lack of efficiency	٧٥	١٨,٧٥

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Continue table (7)

Total	٤٠٠	١٠٠
7. In your opinion, School cleanliness is responsible of:	.No	%
student The	٥٢	١٣
school The	٤٦	١١,٥
Both	٣٠,٢	٧٥,٥
Total	٤٠٠	١٠٠

Source: Prepared by the researcher according to statistical analysis.

Table (8)

The student's awareness of the way to deal with the environment.

N	Items	Always		timeSome		Never		Total
		F	%	F	%	F	%	
١	Is the family the first brick from which the individual learns the best environmental behavior	٣١٤	٧٨,٥	٨٦	٢١,٥	-	-	٤٠٠
٢	Do you support environmental education as important as any other curriculum?	٢٨٠	٧٠	١٢٠	٣٠	-	-	٤٠٠
٣	Do You believe that community participation in environmental events and activates has a significant impact on raising environment awareness?	٢٢٨	٥٧	١٧٢	٤٣	-	-	٤٠٠
٤	Do you agree that social communications are one of the most successful means of spreading environmental awareness?	٢٠٢	٤٦	١٩٦	٤٩	٢٠	٥	٤٠٠
٥	If you notice any environmentally harmful behavior, do you inform the competent authorities?	١٠٢	٢٥,٥	١٥٦	٣٩	٧١	٣٥,٥	٤٠٠
٦	Are you keen to advise and guide your brothers and friends in maintaining the cleanliness of the environment?	٢١٠	٥٢,٥	١٦٨	٤٢	٢٢	٥,٥	٤٠٠
٧	Share your neighbors cleaning your street?	١٩٠	٤٧,٥	١٧٢	٤٣	٣٨	٩,٥	٤٠٠
٨	Are you willing to change your habits and behaviors to reduce their impact on the environment?	٢٤٨	٦٢	١٣٥	٣٣,٧٥	١٧	٤,٢٥	٤٠٠
٩	Do you feel embarrassed when you find garbage in front of your home?	٣٥٠	٨٧,٥	٥٠	١٢,٥	-	-	٤٠٠
١٠	Do you care about your personal cleanliness and hygiene?	٣٣٠	٨٢,٥	٧٠	١٧,٥	-	-	٤٠٠
١١	Do you take care to clean your personal room and arrange your needs?	٢٨٨	٧٢	١١٢	٢٨	-	-	400
١٢	Do you throw the trash into the classroom, walkways, and gardens?	٦٢	١٥,٥	٦٦	١٦,٥	٢٧٢	٦٨	400

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١٣	After you finish your meal at the grocery store you throw the waste in the garbage container.	٣١٨	٧٩,٥	٤٤	١١	٣٨	٩,٥	400
١٤	What do you do when a friend sees you throwing garbage in the college garden?	١٤٨	٣٧	٢١٢	٥٣	٤٠	١٠	400
١٥	When you pass next to trash in the classroom, do you remove it by placing it in its designated place?	١٤٠	٣٥	٢٢٠	٥٥	٤٠	١٠	400
١٦	Ensuring relational use of potable water.	٢٤٤	٦١	١٣٢	٣٣	٢٤	٦	400
١٧	Health disinfectants are used to clean the house.	٢٢٦	٥٦,٥	٩٨	٢٤,٥	٧٦	١٩	400
١٨	Be sure to clean the bathroom after you have finished using them?	٣١٦	٧٩	٨٤	٢١	-	-	400
١٩	What is your behavior when you see one of your colleagues writing on the seats and walls? Do you advise him not to write?	١٨٦	٤٦,٥	٩٢	٢٣	١٢٢	٣٠,٥	400

Source: Prepared by the researcher according to statistical analysis.

13) Statistical methods

(1) Pearson Correlation: It is used to measure the correlation between the two variables of the study.

(2) Simple regression: It is used to measure the influence relationship between the two variables of the study.

**Table (9)
correlation coefficient matrix between Seven Steps Strategy (7steps) and
Environmental Awareness**

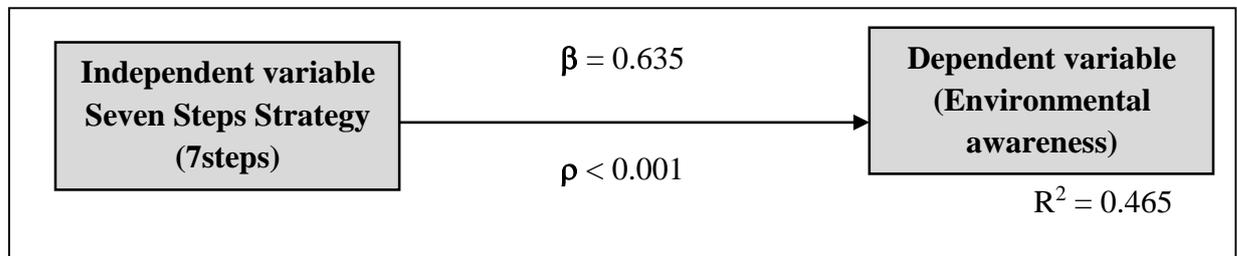
Correlations			
		steps ^v	Environmental .Awareness
Seven Steps Strategy	Pearson Correlation	١	**٦٣٥.
	(tailed-٢) .Sig		٠٠٠.
	N	٤٠٠	٤٠٠

Continue table (9)

Environmental Awareness.	Pearson Correlation	**٠.٦٣٥	١
	(tailed-٢) .Sig	٠٠٠.	
	N	٤٠٠	٤٠٠
**. Correlation is significant at the 0.01 level (2-tailed).			

Source: Prepared by the researcher according to statistical analysis.

There is a positive correlation between the independent variable (Seven Steps Strategy) and the dependent variable (Environmental Awareness) at a statistical significance of 0.01%.



Shape (1)

Linear regression of the effect of Seven Steps Strategy (7steps) on Environmental awareness

There is an effect of the independent variable (Seven Steps Strategy) on the dependent variable (Environmental Awareness) at < 0.001 .

14) DISCUSSION

Table (6) shows the demographic characteristic of (400) students, the percentage of the females was higher than males, they accounted (58.51%) (41.5%) respectively, (88.5%) of the students were from Urban areas. The results showed in table (7) that the environmental awareness among middle stage students is good at (48.5%) and they were satisfied heavily with the cleanliness of the university, where the percentage of answer of this point (59%). The results also showed that the family plays an important role in deepening the concepts of preserving the cleanliness of the environment, they accounted (33%).

While (45.5%) of them were dissatisfied with the behavior of some students in maintaining the cleanliness of the school. Moreover, (36.25%) of the students confirmed that Poor student awareness of the importance of preserving the school

environment is one of the difficulties that the school faces in maintaining its cleanliness.

The results also confirmed that the family's culture and educational level that deepen the concepts of environmental cleanliness. (75 %) of the students believe that the cleanliness of the school is a responsibility of the student and the school administration and the solution to reduce the wrong practices in dumping garbage in places other than the designated areas is to increase health control and punish violators.

Table (3) show student's awareness of the way to deal with the cleanliness of the environment 78.5 % of the students support the family as the first brick from which the individual learns the best environment behavior and the environment education is no less important than any other curriculum , they accounted (70%) .The results also showed the student's keenness to guide his brothers and friends in maintaining the cleanliness of the environment and the participation of his neighbors in cleaning the street and he is ready to change his habits and behavior to reduce their impact environment , they accounted (52.5%),(47.5%) and (62%) respectively . (68%) of the students do not throw the waste into classrooms, college corridors and parks. Students supported social media as one of the most successful means of spreading environmental awareness, they accounted (46%).

CONCLUSIONS

We conclude from this study that the middle school student has a high environmental awareness, and that the responsibility for the cleanliness of the school lies with the student and the school together, and he is ready to change his wrong habits and behaviors to reduce their impact on the cleanliness of the school.

15) Recommendations:

Encouraging schools in United Arab Emirates to adopt Seven Steps Strategy (7steps) for middle stage students.

Applying this study in other Arab countries.

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