Port Said Journal of Educational Research (PSJER)
2022, VOL. 1, Issue no. 1, 36- 59.
DOI: 10.21608/psjer.2022.154335.1000

The Level of Practicing Habits of Mind in Social Studies among Preparatory Stage Students in the Arabic Republic of Egypt

Doaa Saeed Al-Barbari[1], Islam Mosa Abo-Aita[2] & Rafeek Elmeanawy [3]

[1]*Lecturer of Curricula & Methods of Teaching Geography, Faculty of Education - Tanta University, Egypt.*

doaa.elbarbari@edu.tanta.edu.eg

[2]*PhD researcher, Curricula & Teaching Methods of Geography, Faculty of Education - Tanta University, Egypt.*

dreslammousa25@gmail.com

[3]*Assistant Lecturer at Department of Curricula & Teaching Methods, Majoring in Agricultural Sciences, Faculty of Education - Tanta University. Egypt.*

Rafeek.elmeanawy@edu.tanta.edu.com

Abstract

The current study sought to determine the level of practicing some habits of mind (thinking flexibly, struggling for accuracy, using the senses to collect information, applying prior knowledge, and reciprocal thinking) in social studies for middle school students in Egypt. The study followed the descriptive survey method. A scale consisting of 50 phrases was used, distributed over five domains. The scale was applied electronically to a group of 340 students from Gharbia Governorate. The results showed that the responses of the research participants were medium as a total average, and to a moderate degree in all the sub-domains, which means that the level of practice of the preparatory stage students for the habits of mind in the subject of social studies is moderate. The study recommended the necessity of developing the habits of mind among middle school students. Attention to training middle school students on the habit of struggle for accuracy in particular. Using a variety of teaching strategies helps students practice habits of mind in social studies.

Keywords

Habits of mind, Social Studies, Middle School Students.

Introduction:

In the present time, scientific and technical changes have collapsed in various fields of life, so there has become a need to prepare an effective generation capable of permanent learning, armed with everything that enables it to keep pace with the developments of this age and capable of facing what may come from the future of unpredictable possibilities.

Therefore, modern educational systems are directed towards more permanent and continuity education, taking care of students and placing them in intellectual environments that encourage sound thinking. The use of habits of mind, and Knowledge expansion are to be met. Habits of the mind provide a set of behaviors that students and teachers strive towards consciously and permanently, and they must be practiced regularly. Focusing on the habits of mind as goals that must be achieved will make an impact on the school beyond its traditional limits and roles (Salem & Attia, 2016: 54).

Costa and Kallick (2000 a, 201) indicate that neglecting the use of the habits of mind causes many shortcomings in the learning process outcomes, as the habits of the mind are not possessing information and focusing on the amount of knowledge acquired only, but rather the employment of information and how to use it and the development of dealing with modern technologies; which requires the individual to follow the developments and progress in various fields. Habits of the mind are necessary for effective thinking, as individuals who possess these habits are not only able to think deeply; rather, their mental habits help them access the mental abilities needed to solve problems when they are needed. Besides, the study of Elmeanawy, Elgendy, and Elzontahy (2021) recommended the necessity of developing the curricula to be more effective and in line with requirements of the contemporary epoch. Furthermore, the following studies recommended the importance of developing the habits of mind among students in the different educational stages

such as (Hosam El-Din, 2008; Fathy, 2014; El-Azab, 2014; Al-Tahhan, 2015; Saleh, 2015; Selim 2016; Bishara, 2015).

Study Problem:

The research problem has been attempted through the following main question: What is the level of practice by middle school students in the Arab Republic of Egypt of some habits of mind in the subject of social studies? Which has been represented into the following sub-questions:

1. What is the level of practice of middle school students in the Arab Republic of Egypt to rethink flexibly in the subject of social studies?
2. What is the level of practice of middle school students in the Arab Republic of Egypt for the habit of striving for accuracy in the social studies subject?
3. What is the level of practice of middle school students in the Republic of Egypt, usually using the senses to collect information in the subject of social studies?
4. What is the level of practice of middle school students in the Republic of Egypt to re-apply previous knowledge to new situations in the subject of social studies?
5. What is the level of practice of middle school students in the Arab Republic of Egypt for reciprocal thinking in the subject of social studies?

Literature review:

Mental habits help in organizing the learner's knowledge store, managing his thoughts effectively, training him to organize assets in a new way, and looking at things in an unfamiliar way to organize existing knowledge to solve problems.

The concept of mental habits:

There are many definitions of mental habits with a multiplicity of viewpoints, and the most important definitions of mental habits are the tendency of the individual to deal intelligently when he faces a problem, or when the answer to question is not present in the mind (Rickets, 2004, 21-23). Costa and Kallick(2009) defined them as the patterns of mental performance fixed and continuous work in order to reach a rational behavior to face different situations. It is defined by Al-Sultani and Al-Jubouri (2015) as a set of mental performances that lead an individual to productive actions in a specific situation and continuously in similar situations.

Through the previous definitions, it can be concluded that these habits include:

- Knowing how a person acts intelligently when he does not know the answer.
- A pattern of smart performances that lead the learner to productive actions.
- Mental habits are formed as a result of individual's response to certain types of problems and questions, provided that the solutions to problems and answers to questions require research, investigation, reflection, and depth.
- A sequential development process that ultimately leads to production and innovation.
- A mental habit consists of several skills, attitudes, values, past experiences, and tendencies

The habits of the mind depend on the following:

- The extent of belief in the importance of these habits and the individual's ability to achieve and accomplish everything related to the goals.
- The individual's ability to choose a specific pattern of mental operations is better than others when facing new problems or experiences.

- The extent of belief in the importance of mental habits as a system and a pattern that helps correct the human path.
- The extent to which these habits are believed to be the method by which learners produce knowledge, whereby those who do not know reach a state of knowledge to learn, practice, and master it (Fathy, 2014, 240).

The genesis of Habits of Mind:

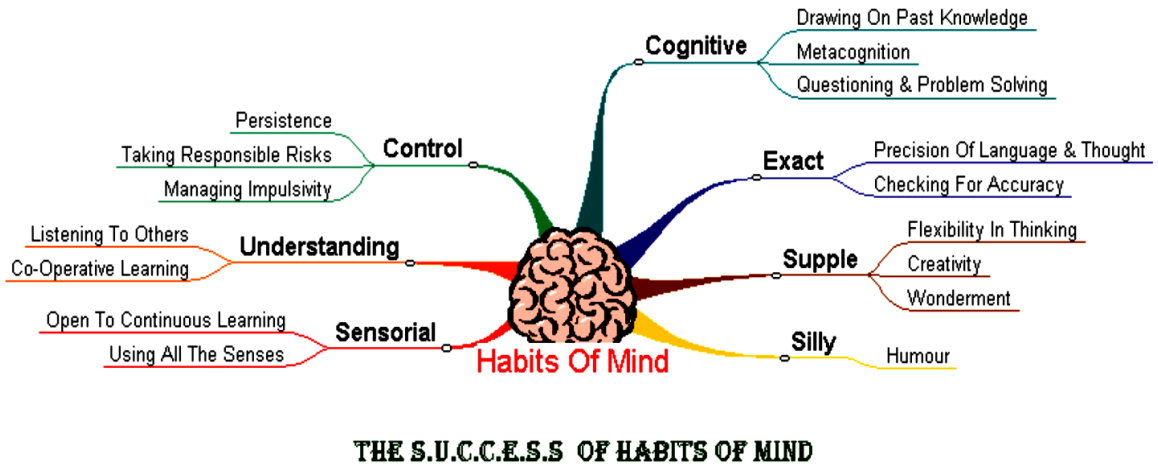
It began in 1982 when some researchers in the United States of America tried to come up with names for the intelligent behaviors that an individual expects from the others during class practices and daily work, and it was agreed to call them "habits of mind", indicating that behaviors require the discipline of the mind and the purpose of learning them is to help educators acquire them. For students and work towards these habits, which represent wide and continuous learning throughout life and are appropriate for adults and children, so that they use them when faced with situations lacking certainty or challenging. (Asfour, 2009, 164).

The interest in developing the Habits of Mind among learners continued with the "2061" project, presented in 1988 in the United States of America, where the project recommended the inclusion of fourteen mental habits within the content presented to students (AAAS, 1993, 189-192), but the real beginning of rooting the nature of the habits of mind began when Arthur Costa (Costa, 1991, 100-106) presented a study within the Association for Supervision and Curriculum Development in the United States of America (ASCD), which indicated fourteen intelligent behaviors called mental habits (see figure 1), such as persistence, and the struggle for accuracy. metacognition, impulse control, listening with understanding and empathy, thinking flexibly, humorous, questioning and posing problems, applying prior knowledge to new situations,

accepting risks, using all of the senses, originality, and creativity, surprise and curiosity, fun problem solving, thinking interchangeable.

Figure 1

The structure of mental habits (Asfour, 2009, 164).



Characteristics of Habits of Mind:

Habits of mind include a set of skills, attitudes, proclivities, insinuations, past experiences, tendencies, and characteristics that characterize habits of mind as indicated by Al-Harthy (2002); Cost and Kallick (2008); Anderson (2009); Boyes and Graham (2009); Saleh, (2013); Al-Otaibi (2013) and Al-Khaffaf, (2016):

1. Values: Selecting and employing certain patterns of rational behavior that are better or instead of other behavior that is less useful or productive.
2. Inclination: Inclination is the feeling of desire and inclination towards using a particular model of mental behavior that has been preferred or chosen.

3. Sensitivity: awareness of opportunities and their appropriateness to use rational behavior and their application.
4. Capability: Possessing the basic skills and abilities to achieve success and keep pace with mental behavior.
5. Commitment: Continuing to reflect on the performance and improvement of the pattern of intellectual behaviors.
6. Policy: Policy to reinforce and integrate intellectual behaviors and transform them into actions, decisions, and solutions to the problems facing the individual.

Costa and Kallik classification of mental habits:

Costa and Kallik identified and described 16 mental habits that represent forms of intelligent behavior, and these habits represent aggregates of behaviors that are used in all aspects of life and different places. It is still possible to add that at the moment work is being done and the search for new habits is in progress. Costa and Kallick based their identification of these habits on the results of the work done by Feuerstein and Baron, Sternberg, Goleman, Ennis, and Gardner, in addition to works that focused on emotional, and social intelligences. Which worked on investigating the characteristics of thinkers and masters within their different specializations, which led to effective behaviors that could be identified through the process of research and scientific investigation. (Costa and Kallik, 2000 b; Costa & Kallik, 2003; Costa and Kallik, 2006; Costa & Kallik, 2009).

These characteristics “behaviors” were identified among individuals who were distinguished by success in various aspects of life, including academics, teachers, businessmen, sales coaches, and educators (Al-Rubei, 2009, 90; Saleh, 2015, 200). These mental habits are represented as shown in (Nofal, 2008; Al-Rubei, 2009; Costa & Kallik, 2000 a, 21-39; Costa and Kallik, 2003;

Costa and Kallik, 2006, Costa and Kallik, 2008, 15; Costa and Kallik, 2009, 3- 18) The five habits that are targeted in this can be classified as follows in table (1):

Table 1

The classification of some of the mental habits of Costa& Kallik

field	The habit	Description of the habit
Cognition thinking	Collecting data through all the senses	means providing the largest possible number of opportunities to use the senses such as sight, hearing, touch, experience, movement, smell and taste, to gain experience and knowledge from the surrounding environment, to link and collect them in the mind, and to form ideas about them. Most linguistic, cultural, and physical learning are derived from the environment by observing things through the senses.
	Struggling for accuracy	means examining things carefully and being able to review what is being done while getting the job done, to make sure that the standards set are up to par.
	The application of previous knowledge in new situations	means employing previous experience to confront and interpret current problems, retrieve the stock of knowledge and experiences as data sources, and sufficient time must be provided to consolidate and bridge new learning and build a new knowledge structure by integrating previous information with new information.
	Flexible thinking	means looking at old ideas with a different vision and creative imagination, and proposing multiple alternatives to solve one problem, as it indicates looking at a situation in another way.
Social	Mutual Thinking	Working with others, learning from them in reciprocal situations, and communicating their ideas. Working in groups requires the ability to justify ideas and test the viability of solutions strategies for others. It also requires developing a willingness and openness that accept feedback and criticism of others, and through this interaction and communication, the individual and the group can develop mentally.

Costa and Kallick (2008, 5) explain that these habits cannot be considered; Habits isolated from each other, as these are in fact intertwined and interconnected, which constitute the highest levels of human behavior. Also, according to these habits, the teacher is clear on the learning path that

his students will take during their studies, and then he can train them to be independent during their learning and to think and reflect on the situations and challenges that they may suddenly encounter (Seldon & Warwick, 2008, 1).

Because of the importance of mental habits, many studies have targeted, including: Hossam El-Din (2008) who used the "start/response/evaluate" strategy in developing the achievement and habits of mind of first-year middle school students in science. Fathy (2014), who aimed to investigate the role of science and discovery in developing some habits of mind for kindergarten children Al-Azab (2014), who used the constructivist Bybee model in developing some habits of mind among the scientific students of the people at the College of Education. Al-Tahhan (2015), who used a training program in modeling and scientific models to develop modeling skills and habits of mind among female student teachers at the College of Girls. Saleh (2015), who used the Scamper strategy to teach science in developing some scientific habits of mind and decision-making skills among middle school students. Saleem (2016) who used the SWOM strategy in developing habits of mind and decision-making skills in science for first graders in middle school. Bishara (2016), who aimed to identify the impact of a strategy based on activating the habits of mind in modifying alternative concepts in science and developing basic science skills for basic stage students. All of these studies recommended the importance of developing the habits of mind and determining the level of their practice among different students and providing what helps in their development.

Method:

A. *Study Approach:* The study followed the descriptive survey method to answer the study questions.

B. *Study population:* middle school students in the Arab Republic of Egypt.

C. *Participants:* The study tool was applied to participants from Gharbia Governorate, as shown in table (2).

Table 2

Characteristics of the study participants.

Region	First grade	Second grade	Third grade	Total
Tanta	44	40	64	148
Mahalla	76	60	56	192
Total	120	100	120	340

D. Data collection and study tool: The Habits of Mind scale for middle school students in social studies:

1. *Determine the objective of the scale:* The scale aimed to measure the extent to which some mental habits of preparatory school students are practiced - represented by the research participants - according to some of the sixteen habits of the mind identified by "Costa& Kallic.
2. *Determining the dimensions of the scale:* The dimensions of the scale were determined in the light of the theoretical studies and habits identified by Costa and Kallick**,** as well as previous studies related to the topic of the research. The researchers reviewed some of the standards of Arab and foreign habits of mind.

3. *Formulation of Scale Statements:* The researchers formulated the statements of the Habits of Mind scale in the form of behaviors or attitudes practiced by the learner according to the "Likert" model with three levels of response (always - sometimes - rarely), provided that the degree corresponding to each of these levels is in the following order for positive phrases 3, 2, 1 and for negative phrases 1, 2, 3**.**
4. *Exploratory experimentation of the Habits of Mind Practice Scale in Social Studies:* After designing the initial form of the scale, the researchers applied the scale to a group school students at Saeed Al-Arian Preparatory School for Boys, East Tanta Educational Administration, Gharbia Governorat**e**, consisting of (150) students, to calculate the following:

First. Reliability: After applying the scale to the exploratory group and correcting it, the researchers calculated the stability of the scale, using Cronbach's alpha equation: It was found that the alpha coefficient of this was (0.77), and this degree represents an acceptable stability coefficient.

Second. Validity: The researchers relied on the following:

a. Arbitrators' opinions: The researchers relied on (10) arbitrators from professors of education, teachers, and specialists in social studies, where the focus of the arbitration was as follows:

- Appropriateness of scientific validity to scale statements.
- The suitability of the linguistic formulation of the scale expressions for the preparatory stage pupils.
- The association of the scale statements with the habits of mind to which they belong.

The researchers took into account the opinions of the arbitrators to add or modify in the light of their experiences and what they deem appropriate and necessary, which helps to achieve the

objectives of the scale. The two researchers modified the wording of some of the phrases and deleted others, so that the scale after this step consists of (50) phrases, with (10) phrases for each of the five habits of mind dealt with in the current research.

b. *Self-Validity:* by calculating the values of the scale's subjective validity coefficients, it was found that it is equal to 0.88, and this indicates that the scale has an acceptable degree of validity, which indicated the scale's validity in measuring the habits of mind of the research participants.

c. *Internal Consistency:* This method indicates that the sum of the participants' answers to the questions that deal with different aspects of one field converge with each other to form an integrated picture free of internal contradictions. The internal consistency of the scale was calculated by computing the correlation coefficient (Pearson) between the students' scores in each of the dimensions of the scale and the total score, as shown in table(3):

Table 3

Correlation coefficients between the dimensions of the Habits of Mind scale and the total score of the scale

Think flexibly	struggling for accuracy	The use of the senses to gather information	Applying previous knowledge to new situations	Reciprocal Thinking
745**0	.694**0	.501**0	.699**0	.728**0

(**) significant at level $\alpha \leq 0.01$.

It is clear from table (3) that the correlation coefficients between the participants' scores in each habit of the mind habits and their scores on the scale as a whole are significant, and this indicates that the scale has a high degree of internal consistency of its dimension, which reassures its use in research purposes with a degree of reliability.

d. Computing the degree of realism of the scale statements: The realism of phrases means their ability to produce responses "always," "rarely" and to stay away from "sometimes" responses. The Hofstetter equation was used, which set the limits of the degree of realism (Zeitoun, 2009, 49), as shown in table (4)

Table 4

The range of degrees of realism as determined by Hofstadter

low	Medium	Above Medium	High	Very high
1	2.49 – 1	4.99 - 2.5	10 - 5	more than 10

By applying Hofestatter equation to compute the degree of realism of the scale statements (Elgendy, Elmeanawy, El- Zontahy, 2022):

The degree of realism of the statement = the number of times the statement is agreed*the number of times the statement disagrees\ Unsure number of times.

The results shown in Table (5) were obtained.

Table 5

The degree of realism for each statement on the Habits of Mind scale

Phrase	Degree of Realism	Level	Phrase	Degree of Realism	Level	Phrase	Degree of Realism	Level
1	7.1	High	18	30.3	Very high	35	8.66	high
2	3.6	above average	19	8.66	High	36	7.36	high
3	4.5	above average	20	8.75	High	37	5	high
4	13.5	Very high	21	5.55	high	38	5.57	high
5	7.1	high	22	11.07	Very high	39	5.1	high
6	5.75	high	23	7.5	High	40	4.44	above average
7	15	Very high	24	5.6	High	41	5.68	high
8	8.8	high	25	11.07	Very high	42	14.57	Very high

9	12.8	Very high	56	8.75	High	43	8.66	high
10	7.3	high	27	6.3	High	44	9.7	high
11	10.6	Very high	28	5.1	High	45	6.26	high
12	17.2	Very high	29	5.1	High	46	9.41	high
13	6.33	high	30	6	High	47	5.71	high
14	13.5	Very high	31	5	High	48	7.36	high
15	9.85	high	32	11.81	Very high	49	4.57	above average
16	6.26	high	33	9.7	High	50	11	Very high
17	9.8	high	34	9	high			

The final form of the scale: the scale is made up of its final form of the basic data of the scale and contains the name of the scale, its purpose, instructions, an example of the scale's statements, and how to answer it. The scale expressions: and their number is (50), distributed as shown in table (6):

Table 6

The type, and number of phrases of the Habits of Mind scale.

Some habits of mind

phrases	Flexible thinking	The struggle for accuracy	Using the senses to gather information	Apply previous knowledge to new situations	reciprocal thinking	Total
Positive phrases	1, 19, 26, 30, 79	15, 16, 18, 42	9, 23, 31, 34, 44	4, 14, 25, 27, 36, 39, 41	7, 17, 43, 45, 48, 50	27
Negative phrases	3, 8, 10, 33, 40	6, 11, 13, 20, 22, 46	5, 21, 29, 32, 38	2, 12, 35	24, 28, 37, 47	23
Total	10	10	10	10	10	50

After verifying the validity, reliability, and realism of the study instrument, it was converted into an electronic form for ease of application and distribution.

Research results:

Answer of the first question: What is the level of practice of middle school students in the Arab Republic of Egypt to rethink flexibly in the subject of social studies? To answer this question: mean of scores and standard deviations were used, and the results were as follows**:**

Table 7

Averages and standard deviations of the participants' responses on practicing the habit of thinking flexibly in social studies.

N	Phrases of the dimension of thinking flexibly	Mean	S.D.
1	I put multiple solutions and options to solve the problems I encounter.	1.57	.495
2	I find it difficult to connect two similar problems in two different situations.	1.25	.432
3	I stick to my point of view, whatever the consequences.	1.42	.495
4	I relate what I learn in social studies with what is similar in other subjects.	1.42	.494
5	I can't build models of the things I learn.	1.44	.497
6	I get my work done regardless of accuracy.	1.49	.501
7	I discuss with my colleagues what they offer different ideas on a particular topic.	1.46	.499
8	I refuse to correct others for my thinking.	1.47	.500
9	I draw the maps that I study.	1.49	.501
10	It is difficult for me to suggest new ideas to solve the problem I am facing.	1.26	.440
The overall mean of the participants responses		1.42	

It is clear from table(7) that the general average of the extent to which middle school students usually think flexibly in social studies is 1.42, which is an average degree, which means the need to develop students' ability to think flexibly.

Answer of the second question: What is the level of practice of middle school students in the Arab Republic of Egypt for the habit of striving for accuracy in the social studies subject? To answer this question: mean of scores and standard deviations were used, and the results were as follows:

Table 8

Averages and standard deviations of the participants' responses to the practice of struggle for accuracy in social studies

N	Phrases of the dimension of the struggle for accuracy	Mean	S.D.
1	I apply the first thought that comes to my mind when I try to solve any question.	1.22	.415
2	I act immediately in the situation without thinking about previous experiences similar to it.	1.47	.500
3	Answer the test questions directly without reading all the questions.	1.11	.319
4	Connect what the teacher says during class to the textbook while studying.	1.34	.474
5	Review the solution steps before starting to solve any question.	1.36	.480
6	I am careful in the performance of any work I do.	1.46	.499
7	I discuss my notes with my colleagues to make sure they are correct.	1.47	.500
8	I make sure the final solution to each question is correct.	1.44	.497
9	Accomplish assigned tasks in innovative ways	1.46	.499
10	I submit my work as soon as it is finished without revision.	1.38	.485
The overall mean of the participants responses		1.36	

It is clear from table(8) that the general average of the extent to which middle school students usually struggle for accuracy in social studies is 1.36, which is an average degree, which means the need to develop students' ability to struggle for accuracy in their work

Answer of the third question: What is the level of practice of middle school students in the Arab Republic of Egypt for the reuse of the senses to collect information in the social studies subject? To answer this question: mean of scores and standard deviations were used, and the results were as follows:

Table 9

Averages and standard deviations of the participants' responses to the practice of using the senses to collect information in social studies.

N	Phrases of the dimension of using the senses to collect information	Mean	S.D.
1	I find it difficult to solve mazes and visual puzzles.	1.49	.501
2	If I'm in class and lose interest, I quickly come back to focus.	1.42	.494
3	I can use my senses in the learning process.	1.44	.497
4	I see that I'm the only right person in the group.	1.40	.491
5	I select my thoughts on any new topic based on my previous experiences.	1.42	.494
6	I compare my thoughts to those of my colleagues when discussing a particular topic.	1.38	.487
7	I recall past experiences when studying new topics.	1.42	.494
8	I keep my thoughts to myself when participating in group work.	1.41	.492
9	I can't remember things very well as you said to me.	1.42	.494
10	I change the way I study when I have difficulty.	1.29	.455
	The overall mean of the participants responses	1.40	

It is clear from table (9) that the general average of the extent to which preparatory school students usually use the senses to collect information in social studies is 1.40, which is an average degree, which means the necessity of developing students' ability to use the senses to gather information.

Answer of the fourth question: What is the level of practice of middle school students in the Arab Republic of Egypt to re-apply previous knowledge to new situations in the subject of social studies? To answer this question: mean of scores and standard deviations were used, and the results were as follows:

Table 10

Averages and standard deviations of the participants' responses to the practice of applying previous knowledge to new situations in social studies.

N	Phrases of the dimension of applying previous knowledge to new situations	Mean	S.D.
1	Develop some drawing skills through practice.	1.29	.455
2	I cannot distinguish the sounds of some animals after hearing them once.	1.49	.501
3	I stick to my idea of solving the problem and if one of the group members comes up with a better solution.	1.54	.499
4	Use the pen and paper to jot down any notes while I study.	1.54	.499
5	I find it difficult to clearly summarize what I have learned.	1.56	.497
6	I take advantage of past mistakes and problems to succeed in other similar situations.	1.41	.493
7	I impose my opinion on my colleagues.	1.36	.480
8	When I read a lesson, I just looked and read the topic in a silent way.	1.38	.485
9	Use the examples to solve the current problem.	1.39	.487
10	I look at solving the problem in only one way.	1.29	.455
	The overall mean of the participants responses	1.43	

It is clear from table (10) that the general average of the extent to which preparatory students usually practice applying previous knowledge to new situations in social studies is 1.43, which is an average degree, which means the need to develop students' ability to apply previous knowledge to new situations.

Answer of the fifth question: What is the level of practice of reciprocal thinking by middle school students in the Arab Republic of Egypt in the subject of social studies? To answer this question: mean of scores and standard deviations were used, and the results were as follows

Table 11

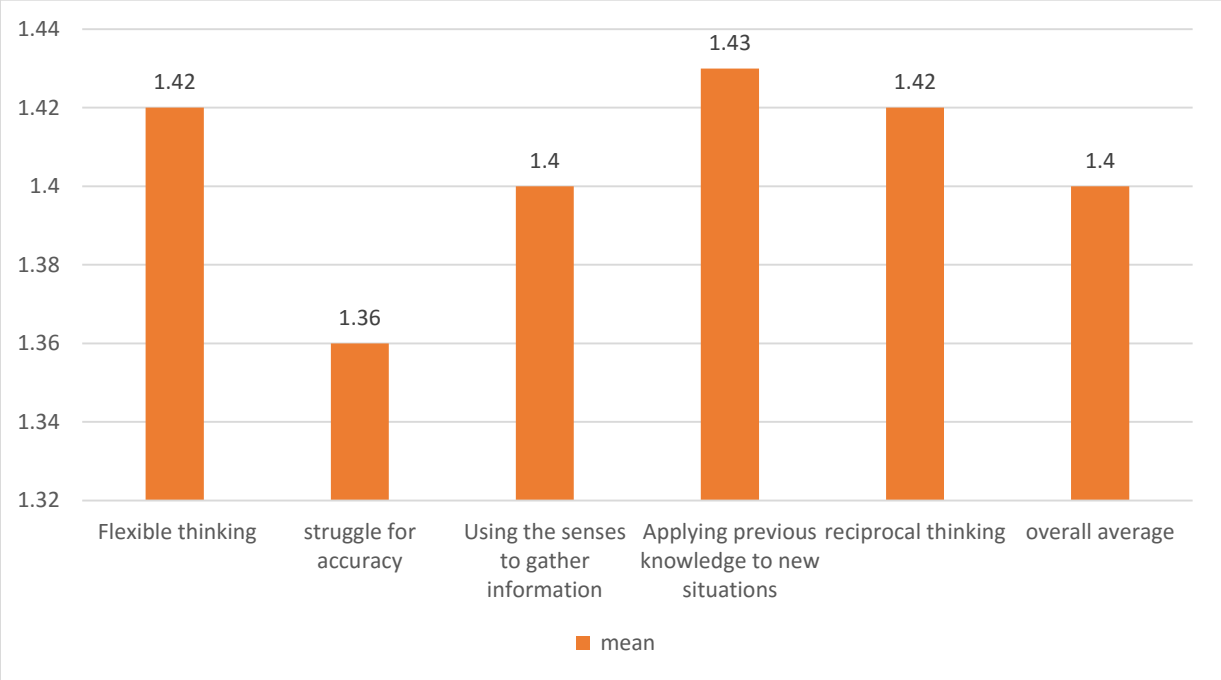
Averages and standard deviations of the participants' responses to the practice of reciprocal thinking in social studies.

N	Phrases of the dimension of reciprocal thinking	Mean	S.D.
1	I am always looking for the benefit of what I learn and read.	1.36	.481
2	If I get a low score, I ask myself why this happened.	1.38	.487
3	I participate with my colleagues in setting goals for teamwork.	1.38	.485
4	I have the ability to express what I see through drawing.	1.40	.491
5	I always strive to have an active role when working in a group.	1.40	.491
6	I can't be sure I've improved on a task.	1.39	.487
7	Enjoy individual activities more than group work.	1.40	.491
8	I use some of my colleagues to understand what I alone cannot understand.	1.37	.483
9	I bear in mind that there is more than one consequence of any work I do.	1.34	.476
10	I collaborate with my colleagues so that we have a better understanding of what we are studying.	1.33	.470
	The overall mean of the participants responses	1.42	

It is clear from table (11) that the general average of the extent to which middle school students practice reciprocal thinking in social studies is 1.42, which is an average degree, which means the necessity of developing students' ability to think reciprocally.

Figure 2

A comparison between the total average and the sub-scale averages



It is clear from figure (2) that the responses of the participants were average as a total average, in addition to the sub-dimensions of the scale, where the first dimension came, which is: Flexibility thinking at a medium degree, and the second dimension, which is: the struggle for accuracy, came to a medium degree, and the dimension came The third, which is: the use of the senses to gather information, and the fourth dimension, which is: the application of previous knowledge to new situations, to a medium degree, and the fifth dimension, which is: Reciprocal thinking at a medium degree, which means that the level of practice of the preparatory stage students for the habits of mind in the social studies subject is average. This necessitates the need to work on developing the habits of mind among middle school students in the Arab Republic of Egypt.

Discussion:

The current research aimed to determine the level of practice of the habits of mind by middle school students in the Arab Republic of Egypt in the social studies subject. Five habits were measured as follows: the habit of thinking flexibly, striving for accuracy, using the senses to gather information, applying prior knowledge, and reciprocal thinking. The results showed that the responses of the research participants were average as a total average, and to an average degree in all sub-dimensions, which means that the level of practice of the preparatory stage students for the habits of mind in the subject of social studies is average, and this necessitates the need to work on developing the habits of mind among middle school students in the Arab Republic of Egypt. This study agrees with the results of the studies Al-Harthy (2002) and Al-Khaffaf (2016).

Recommendations:

Based on the aforementioned results, it can be recommended that:

1. The necessity of developing the habits of mind among middle school students in the subject of social studies
2. Attention to training middle school students on the habit of the struggle for accuracy in particular.
3. Using a variety of teaching strategies to help students practice habits of mind in social studies.

References:

Al-Harthy,I. (2002). *Mental habits and their development among students*. Riyadh, Saudi Arabia, Al Shukri Library.

Al-Khaffaf, E. (2016). The habits of mind among kindergarten teachers and their relationship to some variables. *Journal of Psychological and Educational Sciences*, Al-Mustansiriya University, Iraq, 2(1), 301-328.

Al-Otaibi,D. (2013).The Effectiveness of Thinking Maps in Developing Mind Habits and Academic Self-Concept among Female Students of the Biology Department at the College of Education. *Umm Al-Qura University Journal for Educational and Psychological Sciences*, 5 (1), 187- 250.

Al-Sultani, H& Al-Jubouri, N. (2015). The impact of mind habits on the reading comprehension of fourth-grade students, *Journal of the College of Basic Education for Educational and Human Sciences*, Babylon University, No. 19, February, pp. 208-235.

American Association for the Advancement of Science [AAAS] (1993*). Benchmarks for science literacy*. New York: Oxford University Press.

Asfour, E. (2009). A proposed program for developing some habits of mind and awareness of them for female students, teachers of the Department of Philosophy and Sociology. *Journal of the Educational Society for Social Studies*, Faculty of Education, Ain Shams University, 15, 155-210.

Boyes, K. & Graham, W. (2009). *Learning and livid with habits of mind learning tool- An Excerpt*. ASCD 64th Annual Conference and Exhibit Show- Learning beyond Boundaries, Orland, USA, 14, March

Costa, A. & Kallick, B. (2000a). *Discovering and Exploring Habits of Mind*. Association, for Supervision & Curriculum Development, (ASCD), Alexandria, Virginia, USA, 45.

Costa, A. & Kallick, B. (2000b). *Integrating and Sustaining Habits of Mind.* Association, for Supervision & Curriculum Development, (ASCD), Alexandria, Virginia.

Costa, A. & Kallick, B. (2003). *Activating and engaging habits of mind*. Association supervision and Curriculum Development. Alexandria, Virginia. VA.

Costa, A. & Kallick, B. (2006). Describing 16 habits of mind, http://www.habits-of-mind.net/pdf/16Hom2.pdf.

Costa, A. & Kallick, B. (2009). *Habit of mind access the curriculum Particle and creative strategies for teacher*. Association for Supervision & Curriculum Development (ASCD) Alexandria, Victoria.

Costa, A. (1991). *A Developing Minds: A resource book for Teaching Thinking*. Association for Supervision and Curriculum Development (ASCD), Alexandria, Virginia.

El-Azab, E. (2014). The Effectiveness of Bybe's Constructive Model in Developing Some Mind Habits of Scientific Students of the College of Education. *Journal of the College of Education*, Benha University, 97(1), 389-418.

Elgendy, A., Elmeanawy, R., El- Zontahy, W. (2022). Availability of Next Generation Science Standards in the Field of Earth and Space Sciences: Case of Egypt Middle Schools Science Books. *International Journal of Instructional Technology and Educational Studies*, 3 (1), 38-45. DOI: 10.21608/ihites.2022.111873.1089

Elmeanawy, R., Elgendy, A., & Elzontahy, W. (2021). Students Views of Nanotechnology and Its Application: A Case of Egypt Agricultural Secondary Schools. *International Journal of*

Instructional Technology and Educational Studies (IJITES), 2 (3), 21-27. DOI: 10.21608/IHITES.2021.102110.1058

Hossam El-Din, L. (2008). The Effectiveness of the Start-Response-Evaluation Strategy in Developing the Achievement and Habits of Mind among First-Year Preparatory Students in Science. Egyptian Association for Scientific Education, Twelfth Scientific Conference - Scientific Education and Community Reality, August, 1- 40.

Rickets, J. (2004). The relationship between critical Dispositions and critical thinking skills of selected youth leaders in the national EFA organization. *Journal of southern Agricultural Education research*, 54 (1).

Saleh, S. (2015). The Effectiveness of a Scamper Strategy for Teaching Science in Developing Some Scientific Habits of the Mind and Decision-Making Skills for Preparatory School Students. *Journal of the College of Education,* Benha University, 26(103), 173- 242.

Salem, H., & Attia, R. (2016). Habits of the mind and their relationship to decision-making and self-efficacy among outstanding and ordinary students in the first year of secondary school. *Journal of Special Education* - Educational, Psychological and Environmental Information Center, Faculty of Education, Zagazig University, 14, 50-113.

Seldon, A., & Warwick, A. (2008). Habits of mind, Effective learning for the 21st century, Conference at Wellington College, Monday, 12th, May. Available at: www.WellingtonCollege.org.uk/Conference/earlier-conference/habits-of-mind-may-08

Selim, Sh. (2016). The Effectiveness of Using the SOWM Strategy in Developing Habits of Mind and Decision-Making Skills in Science for First Year Preparatory Students, The Egyptian Society for Scientific Education. *Journal of Scientific Education*, 19(4), 135-172.