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The Level Of Habits Of Mind Of Preschoolers From The Perspective Of Preschool Teachers

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Abstract:

Objectives: The current study aimed to detect and identify the level of habits of mind (perseverance, questioning and problem solving, gathering information using all senses) in preschool children (5-6 years old) from the perspective of preschool teachers**.**

Methodology: To achieve the study objectives, the descriptive method was employed through the application of the Habits of Mind Observation Tool developed by the researchers. The instrument included 17 items on perseverance, 15 items on questioning and problem solving, and 15 items on gathering information using all senses. The psychometric properties of the instrument, in terms of validity and reliability, were verified using Cronbach's alpha coefficient to ensure its applicability to the main study sample. The sample consisted of 208 children aged 5-6 years from 10 preparatory education departments**.**

Results: The study found that the sample exhibited an average level of habits of mind (perseverance, questioning and problem solving, and gathering information using all senses**).**

Conclusion: In light of these findings, recommendations were proposed. The most important of these are: the importance of developing and activating habits of mind, developing educational programs to enhance habits of mind, and integrating habits of mind into school curricula**.**

Keywords: Habits of mind, thinking, preschoolers, preschool education**.**

Introduction

1. problem of the study:

Early childhood is one of the most important pillars of building the personality of the individual. It is a crucial stage for the child and a point in the formation and construction of his personality in all its aspects. This stage is also known for developmental changes that are reflected in the later stages of his life. It is a foundational stage for the later stages in terms of motor, linguistic, cognitive, sensory and social development. Ghada Abdel Rahman points out that "the child at this stage is characterized by a high sensitivity to learning and gaining the experience he is exposed to with less effort and is able to achieve good results in learning compared to other stages" (Ghada, 2018, p. 13).

In recent years, "habits of mind" have emerged as an important modern concept that plays a pivotal role in enhancing the cognitive performance of children at various stages of their education. Many studies conducted at the beginning of the twenty-first century have confirmed the need to teach and strengthen the habits of mind in children by discussing them, promoting them, and encouraging them to adhere to them until they become entrenched in their personalities and cognitive path (Qatami, 2007, p. 12). Therefore, modern educational methods call for mental habits to be a main goal in all stages of education starting from primary education, as the goal of education is no longer only to acquire knowledge and skills, but also to employ this education and develop habits of mind. Habits of mind are defined as "the individual's reliance on the use of certain patterns of mental performance in which he employs mental processes and skills when facing a new experience or situation, so that he achieves better performance and more effectiveness" (Goleman & Perkins, 1991-1995).

The importance of developing mental habits and forming positive attitudes towards them by including them in the school curriculum is one of the most important modern research trends, based on the idea that learners have a natural tendency to learn, grow and understand, but it is important to have constructive opportunities that help them achieve this. Those interested in mental habits at the present time focus on the most important modern means by which the learner obtains information. Here, the important role of workers in the educational system and those interested in educating the learner in activating their mental habits and moving the mind from its negative state to an active and positive state in the educational process emerges.

The importance of mind habits also appears in their ability to move the student from merely memorizing and repeating knowledge to the stage of building and producing knowledge. They provide the student with behaviors that help him develop effective thinking patterns and enable him to process ideas within the context of the problems he faces. It also enhances his ability to handle information and data, and contributes to improving his communication with colleagues. In addition, habits of mind motivate the student to hard work and continuous learning, and enhance his will to learn and organize his experiences effectively (Al-Qahtani, 2014, p. 114).

The importance of the habits of mind for the learner in moving him from a mere recipient to an effective element in his learning also contributes to the development of his thinking, which is confirmed by Al-Azab (2013, p. 63) that the development of habits of mind among learners is effective in preparing them to deal with life in its various forms, and earns them the ability to address all types of situations, in addition to helping to create productive and interactive minds, as habits of mind are an intellectual pattern that must be characterized by all learners to be able to succeed in their private and public lives.

Bayer (2003, p. 266) emphasizes that mental habits must be practiced repeatedly by the learner until they become part of their nature. The best way to acquire and develop these habits is to provide them to students and practice them in simple introductory tasks, then apply them to more complex situations. In order to develop intelligence and bring the mind to its critical end in the level of creativity and giving, we must make the mind experienced in sixteen mental habits that can certainly raise the mind to the highest degree of its highness and originality (Arthur Costa, Pena Kalik, Hatem Abdel Nabi, Ali Watfa, 2006, p. 85), in addition to providing it with all the capabilities that enable the learner to collect knowledge and information in an era full of large flow of information and knowledge where Marzano (2000, p. 102) believes that weak habits usually lead to poor learning, regardless of the level or ability of the pupil, as the habits of mind were linked to academic achievement through studies (Mandour, 2009; Al-Sabbakh, 2004; Al-Baz, 2014), which found a positive relationship between achievement and habits of mind. Therefore, habits of mind have been the focus of many educational projects, such as the Science Education for All project for the year 2061, which included a set of mental habits, the Queen Elizabeth Project, and the Australian Schools Project in the year (2003).
This study comes to investigate the level of habits of mind in pre-school children as one of the important stages in building the child's learning, as many researchers in the field of child psychology point out. Although many studies dealt with the subject of mind habits as previously mentioned, it did not receive study and research in the pre-school stage. The study of Al-Barsan and Abdo (2013) reached a low degree of sharpness and relative weights of the four mental habits of pupils, while the study of Shamam and Bin Katila (2019) found that there is a difference in the degree of sharpness and relative weights of mental habits prevalent among middle school pupils. The study of Samah Hamdan and Al-Qadi found that fourth grade pupils have a high level of mind habits. From the above, the following question can be asked:
What is the level of mind habits (perseverance, questioning and problem solving, gathering information using all senses) in the study sample from the point of view of the teachers of the preparatory department?

2.Objectives of the Study

Through this study, we aim to determine the level of habits of mind in pre-school children from the point of view of the teachers of the preparatory department.

3.Significance of the Study

The importance of the current research is illustrated by the following:
The nature of the subject dealt with in the study, which is the habits of the mind, as it plays a prominent and important role in enabling children to face the problems and variables of the times.
The present study is in line with recent trends in pedagogy – habits of mind.
The importance of the age group – preschool children - in developing the child's abilities as a starting point.
The need for modern methods in line with the changes in the world today.
This study is a new addition to research and studies in Algeria due to the scarcity of studies that dealt with the habits of mind at this age.

4.Previous studies on habits of mind:

4.1. Mohamed Moussa Study (2020)

This study aimed to determine the impact of a proposed blended e-learning environment program on the development of habits of mind in preschool children. It used a quasi-

experimental approach, designing a preschool blended e-learning program and measuring its impact on the development of preschoolers' habits of mind. The study found statistically significant differences between the experimental and control groups in favor of the experimental group on habits such as listening with understanding, questioning, perseverance, flexible thinking, and creativity.

4.2. Hajjat Study (2008)

The study aimed to investigate the degree of possession of habits of mind and their relationship to self-efficacy among 7th and 10th grade students in Jordan. The results showed a high level of habits of mind possession and a statistically significant relationship between habits of mind and self-efficacy.

4.3. Nofal's Study (2006)

This study investigated the common habits of mind among upper basic stage students in Jordan. The results showed the most common habits were impulsive control, perseverance, striving for accuracy, readiness for continuous learning, and mutual thinking. No differences were found based on gender, achievement, or academic level.

4.4. Thabit Study (2006)

This study examined the effectiveness of a training program based on habits of mind in developing cognitive curiosity and social intelligence in a sample of kindergarten children. The results showed differences favoring the experimental group in cognitive curiosity and social intelligence, with no significant differences based on gender.

4.5. Amour Study (2005)

The study aimed to identify the effectiveness of a training program based on habits of mind in life situations in developing creative thinking skills among 6th grade students. The results showed statistically significant differences in favor of the experimental group on the Torrance test for creative thinking, with no significant differences based on gender.

5.Study concepts:

5.1. Habits of Mind

Habits of the mind are one of the main topics of great interest in modern educational circles. Today, schools are no longer limited to traditional methods that rely on memorizing and retrieving information when needed, but rather focus on the use of modern educational methods that are concerned with the development of intelligent behaviors or what is known as habits of mind.

Mind habits help children intelligently produce and use knowledge to find multiple solutions to the problems they face, and to use these solutions in diverse situations. Children who develop habits of mind are characterized by their ability to choose appropriate behavioral patterns to meet challenges and find multiple solutions to a single problem. Their work is also characterized by accuracy and mastery, regardless of the type of work or its location, which enables them to adopt smart behaviors.

It turns out that habits of mind have a pivotal role in the development of the cognitive level of children, as they contribute to the development of critical and creative thinking skills. By fostering perseverance, optimism, risk-taking, resilience, and empathy, children can achieve future academic and professional successes thanks to their ability to think independently and

solve problems effectively. Here are some definitions that addressed the concept of habits of mind**.**

Nofal (2010) defines mental habits as the set of skills, attitudes and values that enable an individual to build preferences for intelligent behaviors or behaviors, based on the stimuli and stimuli to which he is exposed, so that they lead him to select a mental process, or perform a behavior from a set of options available to him; confront a problem or issue, or apply behavior effectively, and persist on this approach.

Costa and Calic (2004) define it as "the tendency of an individual to act in an intelligent way when confronted with a problem, when the answer or solution is not available in his cognitive structures , as the problem may be in the form of a puzzling situation, a mystery or an ambiguous situation. Habits of mind imply the employment of intelligent behavior when the individual does not know the appropriate answer or solution. Costa , A. & Kallick , B. 2004)).

Defined by (Abdul Maqsoud, 2012) as the tendency of the child to behave intelligently based on the stimuli and stimuli that he is exposed to, so that they lead him to select the performance of a behavior from a set of options available to him to confront a problem, issue or apply behavior effectively and maintain it. (Abdelmaksoud,:2012:37).

Alfaro (2004) defines them as "intelligent behaviors, positive or negative, that push a person to employ thought through creative practice."

As for Hoseman in (2000 Kalick & costa,) he believes that habits of mind are like a rope whose strings are woven to become thick and difficult to cut.

This analogy shows that practicing and motivating the use of these thinking strategies leads us to produce solutions to all the problems that a person faces. That is, it is an ongoing and sequential development process that leads to production and innovation through the employment of a number of skills, values, previous experiences and tendencies.

Within the framework of this research, we adopt three mental habits (perseverance, asking questions and solving problems, collecting information using all senses), which are procedurally defined by the degree to which the child obtains in the scale of monitoring the habits of the mind from the point of view of the teachers used in the current study

5.2. Persistence

Insist on the task at hand - follow up until completion (Costa & Kallik, 2000). The child often finds what directs him directly and thus deprives him of learning perseverance. We must leave the child and encourage him to exert effort, perseverance and communication to solve the problem, so that he has a concept that we do not stop at failure and try to repeat it until we arrive(Abdul Maqsoud, 2012,p. 43).

5.3. Questioning and Posing Problems

It is the generation of different questions about the issues in question, and the search for problems in order to practice mental exercise to solve them, by asking precise questions, and by distinguishing between what is and what is possible. Questioning also aims to bridge the gap between two series by asking questions, and to open the doors of the mind through precise questions. The symbol as expected is the question mark, behind each question mark there is an answer and there is new knowledge that the questioner was ignorant of. In this, the art of asking questions is characteristic of humans. People who are effective in solving problems know exactly how to ask the question to bridge the gap between what they know and what they do not know, for example: What evidence do you have?

Examples of student questions that produce structured interdependencies and relationships include: What do people, events, and situations have to do with each other? Or posing

hypothetical problems: What will happen if....? Al-Jufri (2012, p. 182) believes that the development of the habit of questioning and posing problems is one of the most important mental habits that educators emphasize the importance of developing among learners at early stages of life. Because it helps the child to develop his ability to wonder, raise questions and inquire, and this helps him to grow his critical ability and direct it.

5.4. Collecting data using all senses

Smart people know that all information enters the brain through sensory pathways, and most linguistic, cultural, and physical learning is derived from the environment by observing or assimilating objects through the senses. Mental image formation is important in sports and engineering, social scientists use scenarios and role-playing, scientists build models , and machine mechanics learn from their practical experiences. Artists explore colors and fabrics while musicians blend instrumental and vocal music.

6.Habits of the mind characteristics

Both Costa and Calic mentioned characteristics of mind habits:evaluation, desire, sensitivity, ability and commitment. Katami and Amor added to them the characteristic of politics, and the researcher lists them all:

Value : This characteristic is the selection and evaluation of different methods and the selection of the most appropriate and successful.

Inclination: The tendency for a particular pattern of behavior to be tested and tried.

Sensivity : It is the exact sensation in choosing the method and time to apply the behavior .

Capability : It is the ability of the individual to apply the skills he deems most appropriate for intellectual behavior.

Commitment : Here is the individual's commitment to developing performance that supports the thinking process.

Policy : It is the promotion of the level of actual performance through the change of the individual's policy in dealing with business .

(Costa&kellick:2008) (Katami and Amor, 96,p.2005)

7.The Importance of Developing Habits of Mind in Pre-school Children

The development of habits of mind in children is of great importance, as highlighted by several studies (Abdul Maqsoud, 2012, p. 53; Muhammad, 2014; Taha, 2014; Bakr, 2014, p. 26). These studies emphasize the following benefits:

- **Social Skills Development**: Mental habits such as empathy help children understand others' feelings and build positive relationships.
- **Promotion of Mental Health**: Optimism and resilience contribute to improved mental health, helping children better cope with challenges and stress.
- **Encouragement of Continuous Learning**: Perseverance and risk-taking support children in continuing to learn and experiment without fear of failure.
- **Achievement of Academic and Professional Success**: Developing these habits from a young age can lead to greater success in academic and professional endeavors later in life.
- **Building an Integrated Personality**: Combining these habits helps form an integrated and balanced personality capable of effectively dealing with various aspects of life.

8.Methodological Procedures for the Study

8.1. Study Approach

Due to the nature of the study, which examines the level of mind habits in pre-school children from the perspective of preparatory department teachers, a descriptive approach was adopted.

8.2. Study Sample

To verify the psychometric characteristics of the scale and the validity and comprehensibility of its items, the tool was applied to a sample of 88 children aged 5-6 years from four preparatory education sections, as shown in Table 1.

Table 1: Distribution of the survey study sample by gender

Gender	Males	Females	Total
Number	41	47	88
Percentage	46%	54%	100%

Note: The percentage of males is 46%, while the percentage of females is 54% of the total survey sample.

8.3. Study Tool

Scale for Monitoring Habits of Mind in Preparatory Education Children

Steps to Build the Tool:

1. Review of theoretical literature related to habits of mind and developmental characteristics of the pre-school stage.
2. Examination of various studies addressing habits of mind in pre-school children.
3. Collection of metrics used to measure habits of mind.
4. Identification of age-appropriate mental habits for the study sample.
5. Determination of operational concepts for study variables, according to Costa and Kallick's theory of habits of mind.
6. Initial drafting of study tool items.
7. Presentation of the tool to arbitrators for methodological and grammatical assessment.
8. Final formulation of the study tool after amending and deleting clauses not agreed upon by arbitrators.

The tool includes three mental habits adopted in the current study that suit the various developmental characteristics of children in the pre-school stage:

1. Habit of perseverance (17 items)
2. Habit of gathering information using senses (15 items)
3. Habit of asking questions and solving problems (15 items)

This tool uses a three-point scale:

- Exists to a large degree (3 points)
- Exists to a small degree (2 points)
- Does not exist (1 point)

Note: Scoring is reversed for negative items.

The scale levels are as follows:

- 1.00 to 1.66: Low level
- 1.67 to 2.33: Intermediate level
- 2.34 to 3.00: High level

8.4. Psychometric Characteristics of the Tool

To ensure the clarity of instructions and items, and to verify psychometric characteristics (validity and reliability), a survey study was conducted in Ain Dafli, Algiers, and Ghardaia for the 2022/2023 academic year. The sample consisted of 88 caregivers (41% males and 59% females).

8.5. Tool Reliability

The reliability of the mind habits monitoring tool was confirmed by calculating Cronbach's alpha coefficient for the total score of the scale. The results were as follows:

Table 2: Reliability Coefficient (Cronbach's Alpha)

Measure	**Number of Items**	**Cronbach's Alpha Coefficient**
Total Score	46	0.89

The Cronbach's alpha coefficient for the mind habits monitoring tool from the teacher's perspective was 0.89. This high value indicates that the tool has a high degree of reliability, explaining 89% of the true score variance in the study sample. This level of reliability allows us to confidently use the tool in the current study.

8.6. Validity of the tool:

The validity of the scale was verified using the method of terminal discrimination. Scores of the survey sample members were arranged in ascending order, and the upper and lower groups were extracted using the 27% method. The t-test for two independent samples was calculated to indicate the differences between the two end groups. The results were as follows:

Table No. (03) shows the value of the (T) test to study the differences between the upper and lower scores

Sample / Habits of the mind	Lower Group N + 24		Upper Group N + 24		T value	Probability Value Sig	Degree of Freedom	Significance level
	NO.	Letter (ع) /Ayn/	NO.	Letter (ع) /Ayn/				
Perseverance	27.44	2.97	69	2.60	-32.65	0.00	46	0.01
Using all the senses	24.01	1.90	39.10	2.72	34, 00	0.00	110	0.01

Questioning and Problem Solving	55.50	2.77	64/28	1.07	22:08:	0.00	110	0.01

We note from Table (03) the following :

As for perseverance, the value of the " T " test for two independent samples, which amounted to -32.65, is statistically significant at the level of 0.01, as the probabilistic value sig estimated at: 0.00 is less than the significance level 0.01, and the value of the arithmetic mean of the upper group's grades estimated at: 44.69 is greater than the value of the arithmetic mean of the lower group's grades estimated at: 27.44, which indicates that the paragraphs of perseverance as a mental habit have the ability to distinguish between the upper and lower end groups, which is an indicator of its sincerity.

As for questioning and posing problems , the value of the "T" test for two independent samples, which amounted to -34.00, is statistically significant at the level of 0.01 , as the probabilistic value sig estimated at: 0.00 is less than the significance level 0.01, and the value of the arithmetic mean of the upper group's scores estimated at: 39.10 is greater than the value of the arithmetic mean of the lower group's scores estimated at: 24.01, which indicates that the paragraphs of questioning and posing problems as a mental habit have the ability to distinguish between the upper and lower end groups, which is an indicator of his sincerity.

As for the use of the senses, the value of the " T " test for two independent samples, which amounted to -22.08, is statistically significant at the level of 0.01, as the probabilistic value sig estimated at: 0.00 is less than the significance level 0.01, and the value of the arithmetic mean of the upper group's grades estimated at: 64.28 is greater than the value of the arithmetic mean of the lower group's grades estimated at: 55.50, which indicates that the paragraphs of the use of the senses as a mental habit have the ability to distinguish between the upper and lower end groups, which is an indicator of its sincerity.

9. Baseline Study

The study sample consisted of (208) children in preparatory education departments in each of (Ain Dafla Governorate, Algiers, Ghardaia Governorate) as shown in the table below:
Table No. (04) shows the distribution of the basic study sample according to the gender variable:

	Males	Females	Total
Gender	92	116	208
Ratio	44.2%	55.8%	100%

We note from the above table that the percentage of males was 44.2%, while the percentage of females was 55.8% of the total for the survey sample.

10. Presentation and Analysis of the Results.

To address the research question "What is the level of mind habits (perseverance, questioning and problem-solving, collecting information using all senses) in the study sample from the

point of view of the preparatory department teachers?", we calculated the arithmetic mean and standard deviation of the sample responses on the tool as a whole and on its dimensions. The results were compared with the predetermined levels of the study tool:

- Low: 1.00 - 1.66
- Intermediate: 1.67 - 2.33
- High: 2.34 - 3.00
  The following table illustrates this:

Table (05): The arithmetic mean and standard deviation of the responses of the sample members on the scale of habits of mind and in its persevering dimensions, asking questions and solving problems, collecting information using all senses)

Level	Standard deviation (Maths.)	Mean, arithmetic(al) (Maths.)	Sample	Variable
Medium	,39985	2,08	208	persting
Medium	36340,	2.17		Usually gathering information using all senses
Medium	28605,	2.30		The habit of asking questions and solving problems
Medium	0.22	2.		Scale as a whole

The results indicate that the overall level of mind habits in the study sample falls in the medium range (M = 2.33, SD = 0.22). The habits are ranked as follows:

1. Questioning and problem-solving (M = 2.30)
2. Gathering information using all senses (M = 2.17)
3. Perseverance (M = 2.08)

11. Discussion

The medium level of mind habits observed in the study sample suggests that these habits are present but require further development. This finding aligns with the developmental stage of the participants, as preschool children need training and guidance from both parents and teachers to promote the growth of their mental habits and apply them to everyday situations (Moulds & Regan, 2007).

Abdul Azim (2009) notes that repeated use of certain behavioral patterns can establish consistent approaches to employing mental processes and skills when faced with new experiences. This underscores the importance of developing mind habits not only for problem-solving but also for enhancing children's cognitive processes such as attention and cognition.

The observed average level of mental habits indicates a need for further development, especially considering the critical nature of this developmental stage in forming the child's cognitive structure. Piaget referred to this as the "preoperational stage," which serves as a foundation for subsequent developmental stages.

Mraz and Hertz (2016) suggest that kindergarten children should learn five key habits of mind: perseverance, optimism, risk-taking, flexibility, and empathy. These can be cultivated through storytelling, conferences, and individual sessions focused on growth-oriented goals.

Tobey (2019) describes successful implementation of habits of mind in preschool and

kindergarten classrooms using stories, songs, games, and activities. This approach creates a positive learning environment and prepares children for future challenges.

Our findings are consistent with those of Bender (2019), who employed various strategies such as explicit teaching, modeling, questioning, feedback, and evaluation to help students develop and apply habits of mind in different contexts. Similarly, Nofal (2006) found that the most common habits of mind among students were impulse control, perseverance, striving for accuracy, readiness for continuous learning, and mutual thinking.

The observed ranking of mental habits (questioning and problem-solving, gathering information using senses, perseverance) aligns with the characteristics of preschool children aged 5-6 years. At this stage, children are naturally inclined towards exploration and discovery, which supports the development of questioning and problem-solving skills (Abu Rayash, 2010).

The medium level of "gathering information using all senses" is consistent with Al-Ayasra's (2012) findings, which revealed medium levels of this habit among college students. This suggests that this habit develops gradually and may require continued support throughout educational stages.

The results highlight the need for activating and developing mind habits in kindergarten settings through both teacher instruction and parental involvement. Curriculum design should incorporate activities that foster mind habits at various age levels, starting from the preparatory year. This aligns with recommendations from studies such as Project 2061 – Science for All Americans (AAAS, 1995) and the British National Curriculum, which emphasize the integration of mind habits in school curricula.

To promote the development of mind habits, it is crucial to provide an engaging and stimulating learning environment. Studies by Bakr (2014) and Mohammed (2018) have demonstrated the effectiveness of targeted programs and strategies, such as thinking maps, in enhancing mind habits among kindergarten children.

In conclusion, while the observed medium level of mind habits in preschool children is encouraging, there is a clear need for continued focus on developing these habits through structured activities, supportive environments, and collaborative efforts between educators and parents.

12. Recommendations

Based on the findings of this study and the review of relevant literature, we propose the following recommendations for education policymakers, administrators, and practitioners:

1. Teacher Training on Habits of Mind: Implement comprehensive training programs for teachers on habits of mind. This knowledge and skill set can then be effectively transferred to students, potentially addressing many challenges children face in their daily lives.
2. Cultivate a Supportive School Environment: Develop and maintain a school environment that explicitly values and promotes habits of mind. This includes incorporating visual cues, recognition systems, and consistent reinforcement of these habits throughout the school community.
3. Curriculum Integration: Incorporate habits of mind into lesson content across various subjects. This integration ensures that these habits become an integral part of the taught curriculum rather than standalone concepts.
4. Longitudinal Research: Conduct long-term studies to measure the sustainability and enduring effects of developing habits of mind. This research can provide valuable insights into the long-term impact of early intervention and development of these habits.
5. Cultural and Social Impact Studies: Investigate the influence of learners' cultural and social

backgrounds on the development and evolution of habits of mind. This research can inform more culturally responsive approaches to fostering these habits.

6. Digital Technology Impact: Examine the effects of digital technology use (e.g., tablets, educational applications, and games) on the development of habits of mind. This research can guide the effective integration of technology in promoting these habits.
7. Parental Engagement Programs: Develop and implement awareness and training programs for parents on promoting habits of mind at home. These programs should provide practical examples and strategies for reinforcing these habits in everyday situations.
8. Assessment and Monitoring: Develop and implement assessment tools to monitor the progress of habits of mind development in students. This can help in identifying areas for improvement and tailoring interventions.
9. Professional Learning Communities: Establish professional learning communities among educators to share best practices, challenges, and innovations in teaching habits of mind.
10. Cross-disciplinary Collaboration: Encourage collaboration between educators, psychologists, and neuroscientists to deepen understanding of how habits of mind develop and can be most effectively nurtured.
11. Policy Integration: Advocate for the inclusion of habits of mind development in educational policies and standards at local and national levels.
12. Early Intervention Programs: Design and implement early intervention programs focusing on habits of mind for preschool and early elementary students, recognizing the critical nature of early childhood in cognitive development.

Implementation of these recommendations could significantly enhance the development of habits of mind in students, potentially leading to improved problem-solving skills, academic performance, and overall life success. It is crucial that these initiatives are supported by ongoing research and adapted based on emerging findings in cognitive science and educational psychology.

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