APPLYING CHATGPT IN EDUCATION: OPPORTUNITIES AND CHALLENGES FOR LOGICAL THINKING, THE ABILITY TO CONSIDER FEEDBACK AND COMPARE OF LEARNERS

Ngo Thuy Ngan
Hanoi Metropolitan University

Abstract: *In the digital transformation era, AI plays a growing role in education. Language models such as ChatGPT offer opportunities to enhance learners' logical thinking, self- expression, and analytical skills. This paper analyzes both the benefits such as encouraging questioning, multi-perspective thinking, and reasoning and the risks, including over-reliance, reduced autonomy, and difficulties in verifying information. It proposes pedagogical approaches for using ChatGPT as a supportive tool to foster independent thinking rather than replacing it, aiming to build a creative and effective learning environment in the digital age.*
Keywords: *AI technology; ChatGPT; education; learners; logical thinking.*

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Liên hệ tác giả: Ngô Thúy Ngân ; email: ntngan@daihocthudo.edu.vn

1. INTRODUCTION

In the context of digital transformation taking place strongly around the world, the education industry is not out of the wave of change when new technologies such as artificial intelligence (AI) gradually become a part of the teaching and learning process. One of the outstanding achievements of AI in recent years is the development of large language models, typically ChatGPT - a product developed by OpenAI [1]. With the ability to communicate naturally, present diverse data, respond quyckly and support users in processing complex languages, ChatGPT is quyckly integrated into many educational activities, from supporting self-study to designing lesson plans and preparing lectures for teachers.

However, in addition to the obvious benefits, the application of ChatGPT in education, especially for high school students, also raises many issues of concern. One of the biggest concerns is the risk of negative impacts on the ability to think for oneself and form one's own opinions and analysis - a core skill and quality in the modern learning process. Logical thinking and the ability to consider feedback and comparison are not only the ability to analyze and evaluate information objectively and logically, but also the foundation for learners to form their own opinions, self-study ability and lifelong learning.

In fact, many learners today tend to rely on AI tools like ChatGPT to find quyck answers, instead of actively thinking and considering feedback and comparison. This raises a big question for educators: How to take advantage of ChatGPT while still ensuring the development of learners' ability to think for themselves and form their own opinions and analyze? This question is not only theoretical but also has profound practical significance in the context of Vietnamese education aiming to develop comprehensive qualities, skills and qualities for learners [1].

Based on that reality, this study focuses on analyzing two main aspects:

(1) The opportunities that ChatGPT brings in supporting the development of the ability to think for themselves, give their own opinions and analyze for learners;

(2) The challenges and risks if this tool is used incorrectly. At the same time, the article also provides some pedagogical orientations to exploit ChatGPT effectively and appropriately in the modern educational environment.

2. CONTENT

2.1. Opportunities from applying ChatGPT in developing the ability to think for yourself, express your own opinions and analyze

2.1.1. Develop the ability to think for yourself, give your own opinion, analyze and think for yourself, through problem-solving.

One of the first manifestations of the ability to think for yourself and form your own opinions and analysis is the ability to raise questions. With the ability to respond quyckly and non-judgmentally, ChatGPT creates a safe space where learners can freely explore personal questions – things they sometimes hesitate to ask the teacher. For example, when a learner raises the question "Why does water boil at 100°C?", ChatGPT will answer and expand to lead the learner to continue asking deeper questions such as "What about on the mountain?" or "What if the water is salty?" As a result, learners form the habit of questioning and exploring many aspects of the problem.

Additionally, ChatGPT can present opposing views on an issue when requested [2]. For example, for the question “Is the Internet harmful?”, ChatGPT will analyze both the positive and negative aspects. This multi-dimensional approach allows learners to compare, consider, and form their own views, thereby enhancing their ability to consider feedback and contrast.

2.1.2. Access multidimensional information and practice analytical reasoning skills

ChatGPT not only provides concise answers but also supports learners with arguments, illustrative examples and evidence (albeit simulated). This helps learners understand that an issue can have many different perspectives, thereby improving their skills and qualities of evaluating, selecting and considering feedback and comparing information.

For example, when a learner asks “How does climate change affect Vietnam?”, ChatGPT can provide impacts on many areas such as agriculture, transportation, people's lives... Thanks to that, learners learn how to analyze a problem from many aspects.

2.1.3. Building an independent and personalized educational space

ChatGPT can act as a "virtual tutor", supporting learners to study independently and autonomously. During the process of writing an essay or report, learners can use ChatGPT to get suggestions on writing structure, argument orientation or refer to how to present an opinion, review feedback and compare.

For example, with the topic "Should we study online for a long time?", ChatGPT can suggest two-way arguments to learners such as:

Argument 1: Online learning saves time

Argument 2: However, it is easy to cause distraction and lack of social interaction.

Conclusion: It is necessary to flexibly combine the two forms of learning

Such suggestions help learners form the habit of thinking two-way and strengthen their argumentation skills and qualities.

2.2. Challenges to the ability to think for oneself and form one's own opinions and analysis when abusing ChatGPT

2.2.1. The risk of passive learning

When learners rely too much on ChatGPT without actively thinking, the learning

process becomes passive. Many learners, instead of writing their own essays, choose to enter the topic into ChatGPT and copy the answers. This reduces the ability to form personal arguments, hinders the development of the ability to think for themselves and give their own and creative opinions.

For example, with social argumentative essays, instead of developing their own arguments, learners only submit the text generated by AI without understanding the content in depth or how to review feedback and compare when questioned.

2.2.2. It is difficult to distinguish right from wrong without the ability to verify information.

ChatGPT can produce information that is persuasive but sometimes inaccurate or unverified [3]. If learners are not trained in the ability to think for themselves and form their own opinions and analysis and the ability to evaluate the reliability of information sources, they are easily "led" by misleading content.

For example, ChatGPT may present historical evidence or statistical data that are not true. If learners do not check and compare with textbooks or academic documents, their ability to think for themselves and form their own opinions and analysis will be severely affected.

2.2.3. Reduced face-to-face debate and collaborative learning skills

Using ChatGPT as a "one-way dialogue" tool can reduce opportunities for communication and debate in the educational space. Learners may become less proactive in communicating with friends and teachers, and thus gradually lose the ability to present and defend their views directly.

Logical thinking and the ability to reflect and contrast are not only the ability to think, but also the skills and qualities of presenting logically, responding to opposing arguments, and learning cooperatively in groups. Lack of opportunities to practice these skills will cause learners to have difficulty in learning and social communication.

2.3. Instructions for using ChatGPT properly to develop the ability to think for yourself, form your own opinions and analyze

2.3.1. Raise open issues and make multidimensional comparisons

Instead of asking learners to use ChatGPT to find right/wrong answers, teachers can design open-ended questions such as:

"Find 3 different perspectives on the issue of using phones in learning" [4]

"What does ChatGPT say about online graduation exams? Do you agree?"

Such tasks encourage learners to compare, consider feedback and contrast, and make personal arguments.

2.3.2. Ask learners to rate the content generated by ChatGPT

After students use ChatGPT to answer questions, teachers should ask them to analyze the logic, analyze the advantages and disadvantages of the argument, or add personal opinions. This is an effective way to develop the ability to think for themselves, form their own opinions and analyze through proactive inquyry and analysis.

For example: After ChatGPT writes a paragraph about "Air Pollution", the learner must answer:

- Does the paragraph have a clear thesis?
- Is there evidence?
- What additional ideas do you have?

2.3.3. Combine ChatGPT with group study and debate activities

ChatGPT can be used to support learners in preparing their arguments before entering