

Prerequisites, Guarantees and Methods for Learning Mathematics

Le Thi Ngoc Anh¹

¹ Tan Trao University, Tuyen Quang, Viet Nam Corresponding Author: Le Thi Ngoc Anh

| Submitted: 01-03-2022 | Revised: 07-03-2022 | Accepted: 10-03-2022 |
|-----------------------|---------------------|----------------------|
|-----------------------|---------------------|----------------------|

ABSTRACT: The process of learning mathematics is essentially a process of resolving the contradiction between the cognitive subject and the cognitive object. The characteristic of students' learning is to develop their knowledge and ability to innovate on the basis of knowledge under the guidance of teachers. Among them, it is very important to learn the prerequisites, guarantees and methods of mathematics.

KEYWORDS: Application of Mathematics;, Learning Mathematics.

I. INTRODUCTION

In teaching and learning mathematics, the characteristic of students' learning is to develop their knowledge and ability to innovate on the basis of knowledge under the guidance of teachers. In the teaching process, if the students who are the subjects of development and change have a negative and passive attitude-do not want to learn, do not give full play to their subjective initiative, do not fully use or cannot use their eyes, ears, nose, tongue, and body in the correct way and so on, especially if you can't or don't want to use your brain to understand what the teacher teaches, then even if the teacher "teach" well, it can't promote the development of students' own knowledge and ability.

II. GOOD PSYCHOLOGICAL QUALITY AND OBSESSIVE INTEREST IN LEARNING - THE PREMISE OF LEARNING MATHEMATICS WELL

Love is the reason to do something and the strongest motivation to stick to it. Good psychological quality and almost obsessive interest are the prerequisites for learning mathematics efficiently, and it is also a necessary condition for winning in the final exam. Most students feel that the heavy mathematics study is almost breathless, and they are extremely depressed when they encounter a difficult problem or fail the final exam; perhaps, at this time, we will all have a very uncomfortable A sense of depression-this is caused by heavy learning tasks, intense competition, and heavy learning pressure; but, can we escape it? Can we just endure it passively? No, since we can't escape, the only way, Is to face him and resolve it! When you feel unhappy, there will always be something, how to do? Do you continue to bite the bullet and study? No, but to quickly get rid of the unpleasantness and achieve the best learning state.

In this situation, you can find someone you trust, confide your unhappiness, and seek the understanding of others. In this way, you can quickly recover your troubles and concentrate on your study, which can also ensure the efficiency of your study. How? Give it a try and you'll know! In addition, due to the stress of studying, and there will inevitably be such and other unsatisfactory things in the study, I suggest that we find a time every day, preferably in the evening. , Walk out of the classroom, walk out of the house, walk in a quiet place, relax, and look back at the day's study and life. On the surface, it seems that this has delayed some time, but with a relaxed and happy mood, it has improved learning Efficiency, that time is nothing, it is the so-called "knife sharpening and not cutting wood by mistake".

In addition, you must have full confidence in yourself, study with confidence, and enter the examination room with confidence, you can confidently succeed. If you can't do this, you will be too nervous, especially during the exam. It's difficult to play at one's own level, let alone play at a super level.

So, what is the highest state of psychology in mathematics learning and in the examination room? In a word, "not to be surprised"! In other words, no matter what situation you encounter, you can be interested, calm and calm, and deal with it calmly; if you feel The problem is more difficult and difficult to deal with. It can be neither nervous nor disappointed, and still go its own way and go



all out. On the contrary, if the problem is easier, it can also be unpleasant, so that it relaxes its vigilance and is full of loopholes. Perhaps, you already have feelings in this area. For example, sometimes you feel that the question is very easy, but you did not get a good result as you expected; and sometimes, you feel that the question is very difficult, and the result is not a mess! The reason is very good. Simple, no matter what the usual exercises or exam questions are, it is everyone's responsibility. What determines your grades is not the difficulty of the questions, nor your absolute grades, but your position among all classmates or candidates, but Have you played at your own level. Therefore, no matter what kind of situation you encounter, you should not be affected by it, study and test according to the predetermined plan and steps, and play your best level. Of course, it is really not easy to do this, but as long as we consciously exercise and work hard, we will definitely gain! For us students, learning occupies most of the content of life, then we will Studying and testing are used as drill grounds to consciously improve their mental literacy in mathematics and cultivate their own interests, so as to maintain the best mental state and become the ultimate winner.

III. PERSEVERANCE AND PERSEVERANCE - THE GUARANTEE OF LEARNING MATHEMATICS

Studying is hard work, it is to be able to endure the loneliness on the bench and in front of the lamp. Learning is learning. Learning is not entertainment. There is no learning method that allows you to learn a Ph.D. like watching an American blockbuster. This is the law of nature.

IV. A WAY TO GET TWICE THE RESULT WITH HALF THE EFFORT-A MEANS TO LEARN MATHEMATICS WELL

1. Make a personal wrong question set.

I give the students a formula: less mistakes = more right. If you make a wrong topic, no matter what error is found, no matter how simple the error is, it will be included; I believe that once you do it, you will be surprised to find that your error can be corrected without correcting it once. Yes, on the contrary, there are many mistakes made the second time, the third time, or even more times! Looking at my collection of mistakes, oops, it's so shocking. This is really a good place for selfreflection and a good way to improve performance. The later the review, the less likely it is to make a breakthrough in knowledge, and being able to correct one's mistakes is really a lot of room for growth. If you don't have this habit, then, go and prepare one, collect your own mistakes, sort them into categories, and then turn them over when you are okay, take a look, self-warning, you will definitely get a lot of gains.

2. One reference book is enough.

I want to say, don't be superstitious about reference books, don't have a lot of reference books, one main one is enough. I found a very strange phenomenon. Nowadays, many reference books on the market are selling very well. As a result, many students took one book after another in the dazzling situation. In fact, we have very limited time in studying and reviewing, and the time at our disposal is even more limited. In these limited time, we will read this reference book for a while and read that reference book for a while. It is better not to read it. Master the key points of the knowledge structure of the textbook, and be able to review all the knowledge of a subject in a small amount of time. To be able to do this is much more important than reading some so-called "golden keys and silver keys" reference books. In short, in one sentence, grasp the most fundamental, the most important, don't read reference books blindly, especially don't read many reference books.

3. What should I do if I encounter a problem?

First, try to solve it through your own efforts as much as possible. If you can't solve it, you must also understand the reason why you can't, and where the problem is. One sentence I often say is: Never hope that you will not encounter problems, but you must never allow yourself to not understand the difficulties of the problems. When you can't solve it by yourself, you can use discussion and ask the teacher for advice to finally solve the problems; the solution is definitely not done through the help of others, but after the meeting, you will come back. Compare what the original reason is. We must find out the reason. Otherwise, we will lose an opportunity to improve, and the question will lose its meaning.

4. How to jump out of the question?

I think everyone must be very concerned about this topic, because physics is difficult to understand, chemistry is difficult to remember, and there are endless questions in mathematics. But the subject is the heart of mathematics, and it is absolutely impossible not to do it. There are too many topics before us, and it seems that they will never be finished. Try the following methods. First, on the basis of completing the homework, analyze how each topic was investigated, what knowledge points were investigated, and whether there are other ways to investigate this knowledge point;



second, continue to do the questions At this time, it is not necessary to solve each problem in detail. As long as you have read it, you can fall into the type of problem we analyzed above, and you can skip over if you know the idea of solving the problem! In this way, for each knowledge point, Being able to grasp the way of exams is the real improvement. If you don't realize this, doing a question is just doing a question, "just the topic", you can't jump outside the topic, see the essence, encounter a new topic, there is nothing to do with a little bit of difference, and talk about how to improve How can you get rid of the sea of questions that annoys you? **5. Learn the magic weapon to win in the examination room.**

The first is to get rid of psychological fears. You can remind yourself, "What are you afraid of? No matter how difficult it is, everyone is the same as me." After a period of self-suggestion, my heart feels calmer and calmer. In fact, the most important thing in study and examination is not how to learn or test, but to be able to play out one's own level, which is also the premise of super-level play. Everyone might as well give it a try, maybe the effect is very good! Secondly, it is necessary to have the correct learning and examination strategies, so as to be "not surprised", especially when you encounter problems, don't be nervous. There is such a phenomenon in the exam. Once you encounter a problem, you can't solve it after a long time, you will be restless, which will seriously affect the subsequent questions, and then affect the test scores.

6. Correctly understand the exam.

In fact, here, I just remind everyone to pay attention to one fact. That is, if it is not a competition, then more than 80% of the content in the exam paper is a copy of the content we have practiced in our usual study, that is to say, more than 80% of the questions are very basic, 80% Through hard work, each of us can get more points. So every student must see this fact and make himself confident.

V. CONCLUSION

In any case, you must have the spirit of working hard in your studies, but you must not just work hard blindly, you must be good at studying and generalizing, so that you can get twice the result with half the effort.

ACKNOWLEDGMENTS

The authors would like to thank the referee for useful suggestions. This work was

sponsored by Tan Trao University, Tuyen Quang, Viet Nam.

REFERENCES

- [1]. Battista, M. T. (1999). The mathematical miseducation of America's youth: Ignoring research and scientific study in education. Phi Delta Kappan, 80, 424–433.
- [2]. Clements, D. (2001). Mathematics in the preschool. Teaching Children Mathematics, 270–275.
- [3]. Clements, D., & Sarama, J. (2005). Math play: When children count blocks they pick up. Scholastic Parent & Child, 36–44.
- [4]. Gardner, H. (2006). Multiple intelligences go to school: Educational implications of the theory of multiple intelligences. New York, NY: Basic Books.
- [5]. Hiebert, J., Carpenter, T., Fennema, E., Fuson, K. C., Wearne, D., Murray, H., et al. (1997). Making sense: Teaching and learning mathematics with understanding. Portsmouth, NH: Heinemann.
- [6]. NAEYC & NCTM. (2002). Early childhood mathematics: Promoting good beginnings. Joint position statement of the National Association for the Education of Young Children (NAEYC) and the National Council for Teachers of Mathematics (NCTM).
- [7]. National Council of Teachers of Mathematics. (2000). Principles and standards for school mathematics. Reston, VA: NCTM.
- [8]. National Research Council (NRC). (2001). Adding it up: Helping children learn mathematics. Washington, DC: National Academy Press.
- [9]. Prairie, A. P. (2005). Inquiry into math, science, and technology for teaching young children. Clifton Park, NY: Delmar Cengage Learning
- [10]. Seefeldt, C., & Galper, A. (2008). Active experiences for active children: Mathematics (2nd ed.). Upper Saddle River, NJ: Pearson