

# On the Application of Psychology in Primary School Mathematics Teaching

Xinrong Pan

School of Education Science, Xianyang Normal University, Xianyang 712000, Shaanxi, China.

**Abstract:** For students, teaching activity is a process of cognition and empowerment. Through teaching, students can gradually recognize the concepts, methods and systematic knowledge that they did not understand before; this cognitive activity is also the basis for students to gradually master the ability to express, analyze research and discuss problems that they did not have before. Therefore, the development of teaching activities and the improvement of teaching quality are inseparable from the psychological activities based on cognition. In this regard, this paper introduces the author's own understanding, perception and experience.

**Keywords:** Psychology; Primary School; Mathematics; Application

For students, teaching activity is an enabling process (enabling students), and more importantly, teaching activity is a cognitive process. Even, some people say that mathematics teaching activities are emotional activities based on cognition<sup>[1]</sup>. This paper introduces the understanding, perception and experience.

## 1. Teaching design for different people

Mr. Tao Xingzhi wrote in Tao's "Xingzhi's copy" that <sup>[2]</sup> "how to learn, how to teach; learn more with teaching more; learn fast with teaching fast; learn slow with teaching slow."

Mr. Tao's teaching method is actually the application of cognitive psychology in teaching. The research of cognitive psychology shows that <sup>[3]</sup> people's cognition contains consciousness. At the same time, the personality tendency shown in the cognitive process also contains various components such as need, interest, motivation, emotion, etc., which constantly promote the development of human cognitive psychological activities.

In fact, teachers hope to give their knowledge, but not all students can accept it easily. The teaching methods should be different according to the learning methods. Teachers can create teaching methods that adapt to cognitive differences according to different students acceptance levels, so as to individualize the education methods. In the process of explanation, more interaction with students will be conducted, which will improve students' learning enthusiasm and enable them to experience a better teaching process.

Teacher Yang of a school has a good teaching effect and is recognized as a good teacher who can grasp students' attention and promote their learning. Teacher Yang's video is prompted by the district for several times to enable other to learn, but the effect of promotion is not ideal. The reason is that when editing the video, some people thought that teacher Yang told the students seemingly unrelated stories, so they deleted the relevant parts. In fact, it is these three or two seemingly unrelated stories that arouse the interest of primary school students.

---

Copyright© 2021 Xinrong Pan

doi: 10.18686/ah.e.v5i1.3112

This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

## **2. It is necessary to have an ideological realm and work style worthy of students' imitation**

General Secretary Xi Jinping pointed out that <sup>[4]</sup> is “learning is the path of civilization inheritance, the ladder of life growth, the foundation of political Party consolidation, and the prosperity of the country.” If there is a need, there is a drive. If necessary, it is the power source of continuous cognition (continuous learning). Teaching activities are just the process of releasing and transmitting this power.

The behavior of teachers in the process of teaching will have a subtle impact on students, so teachers should be a good example for students. In the process of teaching, teachers should not only impart knowledge to students, but also set an example and good values for students with their own practical actions. Students in the behavior habit of copying the teacher, bit by bit to learn from the teacher, respecting for teachers, diligent and progressive excellent moral character will also be generated.

With the teacher's own correct three outlooks, make students integrate into society, school and family, become a harmonious person, pursue happiness: enable students to be satisfied with themselves (outlook on life), satisfied with the surrounding environment (world outlook), think that life is meaningful (values).

A good person with three outlooks and no distractions is a good start for learning and learning well.

## **3. Creating a harmonious learning atmosphere and improving cognitive efficiency**

In the process of remedial teaching, students tend to prefer teachers with mild temper and friendly smile; spring breeze turns rain and moisten things silently, which will make students get along with teachers more harmoniously and make it easier for them to impart knowledge, and students will be willing to accept it. There are two substitute teachers in two top classes in a school, one male and one female. They have very different personalities and teaching methods. They teach the same course, and the female teachers talk softly and speak slowly, while the male teachers sometimes show a little impatience. In the examination at the end of the semester, the average grade of the female teacher's class was much higher than that of the male teacher's class. Therefore, it is necessary to create a harmonious and relaxed learning environment for students.

In order to create a harmonious learning atmosphere, we should encourage and care the students with patience and gentleness. If a teacher lacks patience and even be contemptuous of some questions raised by students, which leads to students' fear of teachers and their own thinking, the classroom atmosphere will also be suppressed and bad.

We advocate that when communicating with students, teachers can encourage students to ask more questions. Even simple questions should be answered patiently for students. When encountering good problems, they can praise students. A good compliment is better than a hundred criticisms. Students feel the respect and love of teachers, and they will be more confident, natural and willing to study hard to achieve win-win situation between students and teachers.

## **4. Admitting the existence of cognitive bias and correcting students' errors patiently**

It is said that the grandmaster has 3000 disciples and 72 virtuous disciples. They are all people with strange talents. Outstanding in virtue: Yan Yuan, Min Ziqian, Ran Boniu, Zhong Gong. Good at dealing with political affairs: Ran you, Ji Lu. Language: Zai Wo, Zigong. Article erudite: Zi You, Zi Xia. Zhuan Sunshi was extreme, Zeng Shen was dull, Gao Chai was stupid, Zhong You was rude, Yan Hui was often poor and had nothing. Duan Muci did not accept the fate of the manipulation and began his business, but his prediction to the market was often accurate.

The teaching process includes two aspects, one is cognition, and the other is empowerment. Compared with the ability difference, the influence of cognitive difference is greater and more profound.

Krupskaya said: “the so-called education refers to the planned influence of a new generation in order to cultivate certain types of people.” When the students don't understand, especially when they do something wrong, they should criticize them properly, and guide them to think towards the correct concept. They should not be indignant or open-minded, so that they can

realize their own shortcomings or mistakes. Then, students can be praised to enhance their self-confidence, so that they will not feel ashamed because of a mistake. Then, tell him what to do next. This will not have a bad impact on students' self-esteem, but guide students on the right path and correct their mistakes.

## **5. Encouraging and restrain curiosity, strengthening direction and improving learning enthusiasm and efficiency**

A student may focus on the teacher's teaching, or be disturbed by some activities outside the classroom (sound, image, smell, etc.); or, even be disturbed by other students in the classroom, such as shaking the stool, muttering, food smell, turning books and so on, all of which are caused by curiosity.

Psychology believes that: for human beings, curiosity is the psychological tendency of attention, operation and questioning produced by individuals when they encounter new things or in new external conditions. Curiosity is one of the intrinsic motivations of individual learning and the power of seeking knowledge, which is an important feature of creative talents. It can be seen that curiosity is crucial to learning.

In the process of education, on the one hand, teachers should create conditions to induce students' curiosity, make their thinking change from static state to active state, and improve learning enthusiasm and efficiency; on the other hand, teachers should pay attention to cultivate students' ability to control curiosity and avoid being interfered by other factors.

## **6. Conclusion**

Teaching activity is a diversified and complex activity. It is not enough to rely on the efforts of teachers alone. Parents, students and society should also actively participate in it to jointly optimize the teaching environment and improve the quality and learning level of students.

Under the guidance of positive psychology<sup>[5]</sup>, teachers adopt the teaching method from simple to deep, step by step, create a mild and relaxed classroom atmosphere, so as to improve students' interest in learning and cognitive ability, and cultivate students' self-confidence and learning ability: building personal knowledge system with cognition, building personal ability system with empowerment, and learning happily with three outlooks.

## **References**

1. Song G. Mathematics teaching activities are emotional activities based on cognition[EB/OL]. <https://wenku.baidu.com/view/5804ef0d52ea551810a6871b.html>
2. Lang T. Tao Zhixing: Good teachers don't teach ! [EB/OL]. <http://www.pinlue.com/article/2018/05/0314/426260425042.html>, 2018-05-03
3. Cao D. Research on college students' cognitive psychology of ideological and political theory course. Master's Thesis of Taiyuan University of Technology; 2017.
4. Xinhuanet. Xi Jinping: To initiate a "learning revolution"[EB/OL]. [http://www.xinhuanet.com/politics/2015-08/12/c\\_128121051.htm](http://www.xinhuanet.com/politics/2015-08/12/c_128121051.htm)
5. Shi Y. On the learning ability of primary school students with mathematics learning difficulties under the positive psychology orientation. *Teaching and Educating(New Concept of Teachers)* 2019; (9): 35.