# A Study on the Application of Appreciation Education in Teaching Mathematics

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## Abstract

Appreciation education is an educational method that helps students to get better development by finding and encouraging their shining points. With the deepening reform of quality education, the society's concept of education has changed. It not only requires the all-round development of students' moral grounding, intellectual ability, physical vigor, aesthetic sensibility, and work skills, but also encourages the application of appreciation for students' education and classroom management. How to understand and use appreciation education has become the focus. By digging deeper and analyzing the connotation, theoretical basis and role of appreciation education, this study summarizes the current situation, characteristics and citation of the application of appreciation education in order to enhance the effectiveness of mathematics teaching and provide guidelines for theoretical researchers and front-line practitioners.

**Keywords:** appreciation education, classroom management, mathematics teaching

## 1. Introduction

Under the traditional teaching mode, students are competitive and less creative. The burden on their shoulders is getting heavier and heavier. The pressure from various aspects, such as academic and interpersonal, may lead to students' psychological health development being hindered, feeling inferior and self-absorbed, producing depression, anxiety and other psychological problems, which are not conducive to psychosomatic development. Appreciation education is mainly for the teacher to find and release the merits of students, through continuous encouragement, so as to stimulate students' self-confidence in learning, mobilize students' learning enthusiasm, so that students through self-referral, active participation in classroom teaching activities, forming a better development. As a purposeful human development activity, the achievement of educational goals is influenced by the laws of students' physical and mental development and other aspects. Appreciative education follows the laws of students' mental and physical development and can reflect students' subjectivity, requiring teachers to uphold the principles of respect, trust, understanding and tolerance to encourage students, create a relaxed nurturing environment, enhance students' self-confidence and create the best development space for each student. The subject of mathematics, because of its difficulty, requires even more attention and encouragement from teachers, and the application of appreciation education in mathematics classroom teaching has great potential.

## 2. The Meaning of Appreciation Education

Appreciation education is based on the principles of respect, trust, understanding and tolerance, and is a kind of education that originates from the educator's (teacher's) full praise and affirmation based on the educated person's (student's) self-confidence and consciousness (Xie Yarong, 2018). It is a kind of education that originates from the educator's (teacher's) full praise and affirmation, which makes the educated (students) confident and conscious. Appreciative education took shape as early as in Confucianism, represented by

Confucius. In modern times, the famous educator Mr. Tao Xingchi also pointed out: "The whole secret of educating students lies in believing and liberating them. To believe in students and liberate them, we must first appreciate them." It can be seen that Mr. Tao Xingchi's thinking is also permeated by the concept of appreciation education (Zhao Shiying, Zhao Yanchao & Yan Tingting, 2016). Contemporary appreciation education is a theory successfully developed by Zhou Hong, a famous family education practitioner, in the process of educating his deaf daughter Zhou Tingting (Mo Yuehua, 2006). It caused a great sensation in the country as soon as it was proposed. Zhou Hong's appreciation theory believes that: appreciation education is a kind of education that teaches children to say live and walk. Recognizing differences and tolerating mistakes are its basic features. In this way, appreciation education has gradually entered the public eye and become a very important concept in education and teaching nowadays.

## 3. Theoretical Foundations of Appreciation Education

### 3.1 Humanistic Thinking

Humanistic education is an important school of contemporary Western educational thought, whose tradition can be traced back to Rousseau's naturalism and Dewey's "child-centered" progressivism. Humanistic educators criticize traditional education for its restriction and suppression of children's nature, and aim to promote the free and healthy development of children's bodies and minds, advocating that education should follow children's nature and respect their interests and needs (Zhang Xiaotao, 2007; Zeng Deqi, 2003). The humanistic education movement that emerged in the United States and other Western countries in the 1960s and 1970s was a continuation and development of this tradition. Its resurgence is closely related to the emergence and development of humanistic psychology.

Humanism is an exploration of human nature, human development, human happiness, and the human future—a kind of exploration. As society evolves, humanists have different levels and perspectives of understanding human beings, and it is completely impossible to find the same humanistic doctrine. Its themes, however, are timeless: respect for human nature, appreciation of human intelligence, defense of human dignity, and belief in human progress. Humanism is the great tradition, the eternal quest. From ancient times to the present, every age and every nation has had believers in humanism, who were scholars or literary scholars, artists, or industrialists, educators, or politicians. Whatever their professions, they have carried on and enriched the tradition of humanism, defending and pursuing the ideal of humanism (Yuan Yuan, 2013).

Before carrying out appreciation education, teachers need to identify with the idea of being people-oriented, because different individuals have different traits and strengths. Teachers should first recognize that each student is an independent individual, and at the same time respect the premise of free development of people, to discover the strengths and strengths of students and carry out appreciation education.

### 3.2 Self-Worth Theory

The self-worth theory was proposed by American psychologist Carvington. According to him, the need for self-acceptance is the first human need, and the prerequisite for self-acceptance is the affirmation of self-worth, which students often equate with competence. Therefore, in a competitive school environment, motivation to learn stems primarily from efforts to enhance and protect the self-concept of competence (Zheng Yingxia, 2006). In a competitive school environment, therefore, motivation for learning arises primarily from efforts to enhance and protect self-concepts of competence.

Self-worth theory argues that, firstly, the sense of self-achievement and self-worth are the internal causes of human beings' pursuit of success. Secondly, if a person fails, he or she does not reflect on the reasons for the failure, but simply avoids the status quo. Thirdly, if a person is able to achieve success, most people will not consider it as a result of their usual efforts, but because the person has great ability. And the difference in age will also cause a difference in the attribution of success or failure (Liu Li, 2004).

### 3.3 Self-Efficacy Theory

Self-efficacy refers to a person's subjective psychological judgment about whether he or she can accomplish something or achieve a goal behavior (Zhou Wenxia & Guo Guiping, 2006). Self-efficacy is a subjective psychological judgment of whether one can accomplish something or achieve a goal. It was first proposed by Bandura, a famous psychologist.

Bandura's research states that the most significant factor influencing the formation of self-efficacy is the individual's own experience of success or failure in behavior (Wu Shilong, 2003). In general, successful experiences increase efficacy expectations and repeated failures decrease them. In general, successful experiences increase efficacy expectations, while repeated failures decrease them. Also, attribution style can directly affect the formation of self-efficacy. If individuals attribute successful experiences to external, uncontrollable factors (e.g., luck, difficulty, etc.) they will not increase efficacy, and attributing failures to

internal, controllable factors (e.g., effort) may also decrease efficacy. Self-efficacy has four main functions in learning activities: first, it determines people's choice of learning activities and their persistence in learning activities; second, it influences people's attitudes toward learning difficulties; but it affects the acquisition of new behaviors and the performance of learned behaviors: and fourth, it affects emotional states when learning. The theory of self-efficacy overcomes the tendency of traditional psychology to emphasize action over desire and knowledge over emotion, and combines individual needs, cognition, and emotion to study human motivation, which has greater scientific value.

Therefore, in appreciation education, teachers can show their approval and compliment students through their words and behaviors of approval, which will stimulate students' self-efficacy in learning and enhance their learning outcomes.

### 3.4 Motivational Reinforcement Theory of Learning

Reinforcement theory of learning motivation. The reinforcement theory of learning motivation, is proposed by behaviorist learning theorists, whose representative is Skinner. Modern S-R psychologists point out that learning motivation is mainly built by such prior behavioral and stimulus reinforcement. Students' learning behaviors are designed to gain some purpose and meaning. If students' learning is reinforced by motivation, motivation will have a positive effect on them; for example, to get good grades and to receive praise from teachers and parents. If, however, their learning is not reinforced, then their motivation to learn is greatly reduced. Of course, there is also the possibility that students whose learning is ridiculed by others may be motivated to avoid learning, and then motivation theory will not work for them (He Yan, 2017). This is where motivation theory does not work.

The revelation for appreciation education is to adopt various external means such as rewards and praise to motivate students to learn and thus promote their learning behaviors. Teachers' rewarding behaviors in education and teaching can then be applied in this section to facilitate the achievement of learning goals.

## 4. The Importance of Appreciative Education in Mathematics Classroom Applications

### 4.1 A Strong Grip on Students' Development Potential

In the teaching process, teachers are able to enhance students' self-confidence, motivate them to explore deeper and deeper, and stimulate their intrinsic motivation and potential to reach their set goals, breakthroughs and new selves step by step by constantly identifying, affirming and encouraging the progress of their classmates.

### 4.2 A Key Move to Help Students Improve Their Character

Students are in an important stage of physical and mental development, worldview and life view formation (Kang Xi, 2012), more sensitive and delicate emotions, the influence of others' evaluation on self-perception is greater, and they are prone to low self-esteem. Teachers' appreciation and affirmation can maintain students' self-esteem, enhance self-confidence, help students gain a sense of self-identity and self-worth, and form a more complete personality.

### 4.3 A Powerful Tool to Improve Student Learning

Appreciative education captures the emotional factor of human beings because the brain produces morphine-like substances in an excited state, which stimulates the activity of nerve cells and gives rise to a pleasurable feeling, thus increasing learning efficiency (Tang Xinqiong, 2007; Zhang Jie, 2012). In addition, in order to make students' learning more effective in the later stage, teachers should guide and give an evaluation of students' stage learning results, affirming and encouraging what students do well, and pointing out and correcting what they do not do well. This will enable students to recognize their own learning status in time, adjust their learning direction quickly and make their learning efficiency much higher.

### 4.4 Important Ways to Mobilize Students' Motivation in the Classroom

Research studies show that students' classroom activity is positively correlated with self-confidence. By enhancing students' self-confidence, appreciation education can greatly mobilize students' learning enthusiasm (Zou Yuanding & Huang Guoqing, 2014), forming a good classroom atmosphere, making the whole classroom the best, which in turn makes the learning effect more significant.

### 4.5 Key Strategies for Building Good Teacher-Student Relationships

Students in adolescence are rebellious, eager to show their individuality, and face the teacher's criticism and education, I do what I want, and even openly confront and contradict the teacher. In the process of encouraging students, students' attitudes and emotions towards teachers change, they can find strengths and merits in teachers, respect and love teachers more, two-way communication and understanding are formed between teachers and students, which promotes the friendship between teachers and students and eases the relationship between teachers and students.

In conclusion, teachers are able to guide their students to build strong self-confidence, a positive outlook on

learning, long-term self-discipline and a strong sense of responsibility through appreciation education, while doing a good job of classroom management and creating an effective classroom.

*4.6 Effective Means to Help Poor Students Make Long-Term Progress*

Appreciation education can promote the effectiveness and progress of the late students, teachers need to be able to find the students' shining points and give them positive feedback in a timely manner so as to stimulate students' interest in learning and promote their healthy development. First of all, teachers need to give enough respect to the advanced students so that they can effectively promote the progress and transformation of students. In this process, it is necessary to understand in depth the reasons for the unsatisfactory performance of the advanced students, sometimes because of family, sometimes because of study habits, and only when the reasons are found, there is the possibility of prescribing the right remedy. And to understand the main psychological characteristics of advanced students, usually the characteristics of the advanced students are low self-esteem and self-esteem contradictory, teachers should give enough acceptance (Zhou Qingyun, 2008). On the one hand, this part of students also want to be recognized by others, but on the other hand, they have low self-esteem because their performance is not good enough, so teachers should believe that the advanced students have the front of the development and find their factors that deserve to be appreciated, so as to promote the progress and development of students. When the advanced students show some outstanding characteristics, teachers should make enough affirmation, and then cultivate their interest in learning, help them to build up their self-confidence in learning, in this process, teachers must have enough patience, can be persistent, and consistent.

## 5. Characteristics of the Application of Appreciation Education in Mathematics

*5.1 Teaching to Students According to Their Abilities and Focusing on Their Differences*

The most obvious characteristic of appreciation education is "recognizing differences and respecting them". The practical process of appreciation education should pay attention to different aspects of students' personality characteristics, upbringing, life experience and learning status, and teach students according to their individual characteristics. Students' internal psychological activities are an important factor that cannot be ignored in the process of appreciation teaching (Mo Yuehua, 2006). In the process of communication, teachers should pay constant attention to students' psychological states and changes, and promptly affirm students' small developments and progress. If teachers do not carefully analyze and observe and analyze students, understand them, and treat them differently in their teaching methods and appreciation strategies, they will not make great progress in education and teaching. For example, for students with low self-esteem, it is appropriate for the teacher to find their unique flashes and to praise and compliment them publicly; for introverted students, it is appropriate for the teacher to encourage them with a look or a physical gesture; for students with proud and open personalities, it is appropriate for the teacher to point out and affirm their excellent behavior in a matter-of-fact manner without too much modification. Teachers should be flexible and targeted in the context of specific situations and targets.

*5.2 The Power of Role Models to Build an Ecology of Appreciation in the Classroom*

In the process of teaching or class management, we always encounter students who perform particularly well. At this time, we can praise, show, and promote the outstanding students' shining points, help other students find the gaps and strive for development, and create a positive class atmosphere and a class ecology of mutual appreciation and complementary strengths. However, in this process, we should avoid pulling and reducing comparisons, praise and criticism should be directed at things but not at people, and we should not attribute the good or bad completion of a thing to intelligence, ability, and other factors.

*5.3 Mastering Methods and Practicing Appreciation Strategies*

There are certain ways to praise students. Praise should be given with passion, a smile, and a slightly exaggerated expression to convey emotion; praise should be given for specific reasons, such as "you focused for two hours straight, that's great", "you took the initiative to pick up the trash and put it in the trash can, that's an admirable behavior " rather than the broad "You're so nice, you're great"; praise with non-verbal actions (head pats, high fives, etc.); praise one behavior at a time, otherwise the student will not catch the point that needs to be continued; avoid transitions when praising (e.g., "but ") and try to keep the praise as pure as possible. The correct use of praise is the only way to make the best use of appreciation education and achieve the desired results.

*5.4 Be Patient and Maintain a Constant State of Appreciation to Advance*

Appreciation education needs to be persistent. Some teachers, when dealing with poor students, are able to use appreciation education to guide them at first, but after a period of time, they begin to doubt, give up and lose confidence when they do not see great progress and improvement in their students, which can cause harm to students' self-esteem and make them develop negative self-evaluation, which is not conducive to development.

Therefore, in the process of using appreciation education, one should be patient, and persistent in using and practicing (Liu Aiming, 2006).

## 6. Misconceptions of Practice to Avoid in Appreciation Education

### 6.1 Avoid Infinite Praise for Appreciation Education

In the process of teaching or other related work, if the limit of appreciation is not grasped, it may have a certain negative impact on the later development of education and teaching work. If teachers just over-encourage and praise, in the long run, it will make students become arrogant and condescending and cannot maintain a good learning attitude (Zheng Xiaohong, 2019). In addition to this it is also necessary to draw the line of praise, and what is encouraged must be good behavior. For example, students who do not listen to the teacher's instructions and have a poor attitude towards learning in class are not conducive to the improvement of their overall ability. The teacher should not indulge and support such behavior, but should make some criticism. Therefore, in the specific teaching process, as a teacher, it is important to be reasonable. And when students make progress, teachers should encourage them, but at the same time, they should also point out their shortcomings so that they can grow in correction and improvement and avoid the development of blind arrogance. When students suffer setbacks and blows, they should be guided to find the causes and get practical remedial measures for them, rather than just comforting or blaming. In this way, the nurturing goal of appreciation education can be achieved.

### 6.2 Avoid Single Application of Appreciation Education

When teachers use appreciation education in teaching and learning, they should be careful to avoid a single mode of education and should combine multiple modes of education. They should not just apply appreciation or just discipline, but need to ensure a diversity of educational models and flexibility in their educational and teaching activities.

### 6.3 Prevent the Simplistic Praise of Appreciation Education

Appreciation education is not simply praising, but praising the results of others' behavior (Qiu Xiaolin & Zheng Weilin, 2018). Appreciation never excludes criticism, but makes it more powerful. When criticism is not directed at people but only at things, it should be able to make the other person feel the care and love implied in the criticism. Praise must be realistic; unprincipled praise may make students feel hypocritical and damage the image of the teacher in their minds, or they may become "immune" to the teacher's appreciation, or even become bored.

### 6.4 Avoid Monolithic Understanding of Appreciation Education

Because of the influence of traditional education concept, so many teachers' education concept is one-sided, and teachers are always willing to judge students by their academic performance, and this one-sided education is actually the teachers' lack of profound understanding of appreciation of education, so they cannot see other merits and strengths of students other than their grades (Liu Yanmin, 2021). Teachers' appreciation of students should be based on a comprehensive observation and understanding of students' evaluation (Wang Shasha & Wang Liangbei, 2020). It should be based on a comprehensive observation and understanding of the students and should not be based on a one-sided judgment of one aspect. Teachers should think deeply about the idea of appreciation education, implement the connotation of appreciation education, and then implement it carefully.

## 7. Conclusion

AbrahamH.Maslow, the founder of humanistic psychology, pointed out in his hierarchy of needs theory that the fourth level of human needs is the need for respect, including internal respect and external respect, the latter refers to the ability to be respected, trusted and highly valued by others The latter refers to the ability to be respected, trusted and highly valued by others, i.e. appreciated. Appreciation education is people-oriented education, education full of vitality and education of love (Xu Zijing, 2015). As an important teaching concept in the current development of teaching, appreciation education has a positive impact on the development of teachers themselves as well as students. Teachers should not only pay attention to the quality and effectiveness of teaching, but also pay attention to the all-round cultivation of students' quality and help them build a healthy body, mind and personality. Therefore, during the specific teaching work, teachers must pay attention to the use of appreciation education to create good conditions for the development of students.

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