Study on Theoretical Exploration and Discussion of Mathematical Skills

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Abstract. The theory of the basic education reform of mathematics skills research put forward higher requirements, and there is urgent need to reform the mathematics curriculum design, this paper puts forward a theoretical discussion of the mathematical skills to provide a reference for the improvement of math skills.

Math skills is an important evaluation criterion of evaluation on teaching effect, but the relevant mathematical skills is lack of theoretical exploration, which caused some deviation of teaching practice especially in the workbook as a representative, and too much burden is not conducive to long-term development of students' mathematical skills which means mastery of the effect is worrying. The significance of mathematical skills for students is to improve the efficiency of learning mathematics and complete the task in advance, math skills can increase study consciousness and form a unified learning task to promote students to form creative thinking, but also it can promote the students to cultivate the good habit of learning mathematics, and lay a solid foundation for the future development of the whole mathematics career. From this point of view, the improvement of mathematical skills has a strong era and practical needs. This requires to increase the level of attention to mathematical skills, the theory of normative skills, and the rules of skill in order to promote the improvement of mathematical skills.

Essence of mathematical skills

In essence, Mathematical skills are activities, which are considered as spontaneous dynamic activities for the consideration of the effects of mathematical tasks. Math skills includes computing skills, skills and reasoning skills, in particular, it is capable of flexible use of mathematical laws and mathematical operation ability, using mathematical language to describe with their ability, in accordance with the relevant requirements of the graphic steps make logical reasoning ability effective parts. Math skills is the only way which must be passed enhance recipients learning mathematics ability, mathematics knowledge and mathematics skills and mathematical ability, cultivating the ability of mathematics can be developed and applied mathematics ability but also can deepen math skills, through knowledge and ability, mathematical skills will raise the level of mathematics teaching to help students acquire knowledge. In the process of mathematics learning, students put the knowledge into practical skills, mathematical skills also have the necessary conditions of mathematical knowledge, therefore, math skills are meant to improve the learning efficiency of mathematics mathematical tasks, at the same time, the leaning task will be finished as soon as possible. Mathematics skills can help students focus their learning consciousness on mathematics study tasks, promote creative play, and promote students to develop good habits of mathematics learning and lay the foundation of mathematics teaching.

Characteristics of Mathematical Skills

The characteristics of mathematics skills are accurate, fast, coordinated, automatic and so on.[1]. Among them, accuracy mainly refers to the accurate mathematical skills rigor, as is the only answer to specific subjects, ideas and methods of mathematics must strictly follow the fixed rules in math, and about mathematical reasoning and mathematical construction, it should ensure the accuracy of the conclusion which is wrong, the mathematical skills required to minimize once it is wrong to

correct them immediately to prevent recidivism. Fast performance for skilled math skills means problem-solving speed has become the key factors of mathematical skills, such as in mathematical calculation and mathematical reasoning, it will reduce the definition and formula of the consumption, reduce the waste of time, reduce the tedious steps of solving problems in the process of improving mathematics learning effect using the most simple method. In math skills, coordination is in the form of control for special reaction, and in the face of mathematical problems, whether active control for the flexible use of digital text, symbols and graphics are combined, the continuous operation includes a series of mathematical formula which is also very important. The automation of mathematical skills covers the dynamic interpretation of the meaning behind the numbers, the flexibility apply formulas and laws, and the formation of corresponding responses exhibit a high degree of flexibility.

Theoretical Inquiry into Mathematical Skills

Mathematical skills are gradually established after repeated practice, and practice makes perfect the basic way to realize mathematical skills. In order to obtain the mathematical skills, it will not stop at the mechanical repetition, and flexible change should pay attention to mathematical activities, the implementation of various in complete mathematical tasks to get improved in order to achieve the automatic processing of the extent of the problem[2]. The theoretical research of mathematical skills should follow a standardized to realize rational and high speed approach, and the specific implementation methods are as follows.

Firming mathematical knowledge. The practice of mathematical skills has unique purposes and requirements. In the training of mathematical skills, it is necessary to use sensory organs in a comprehensive way, so as to avoid the theoretical study based on repeated imitation. Mastering mathematical knowledge is the basis of improving mathematical skills. Mastering relevant knowledge of mathematical skills is of great significance. Mathematical skills can not be separated from mathematical knowledge, and mathematical knowledge is the main basis for the implementation of skills. Math skills need to make mathematics knowledge as the basis, in the daily practice, it should understand the principle of mathematical exercises to improve the confidence to speed up math exercises and grasp the essentials in practice at the same time as far as possible to grasp the mathematical methods, the right to avoid trial and error to improve math skills. Mathematical skills and knowledge of mathematics is closely related to mathematics skills task whose aims are to improve students' mathematical literacy, and to all penetrate each other, mathematics knowledge has a common goal which is to grasp with theoretical knowledge of mathematics education and mathematics skills, so mathematical skills theory should be viewed as a whole. Mathematics students should master the knowledge of mathematics declarative and procedural knowledge, and mathematics knowledge is mainly theoretical knowledge and practical knowledge and skills to solve practical skills emphasizing mathematical knowledge operability by mathematical skills and mathematics practice combination, which requires master key required in mathematics knowledge in practice, such as compulsory content mathematics technology, literature retrieval, geometric drawing, internship, research and thesis writing practice math skills. The above mathematical skills and teaching of mathematics and mathematics education research related to the content of the theoretical knowledge of the relationship, practical skills training needs through theoretical knowledge guide, through practice theoretical knowledge and skills can be transformed into students' mathematical experience, and only with practice, students can form mathematics knowledge effectively that play an irreplaceable role in mathematics application the day after. The validity of mathematical knowledge depends on whether the relevant content of theory and practice involves coordination which can play a unique role in order to form the best organic integration.

Effective exercise. To improve math skills, students should carry out planned exercises, in mathematics exercise choice, teachers should be properly arranged math homework, and students practice step by step with the appropriate teaching plan for math skills which is not easy to grasp that be divided into simple part, on the basis of effective practice guarantee local master related content, finally to complete the complexity of mathematical skills. In the theoretical exploration of

mathematical skills, it is necessary to allocate the time reasonably, and the maintenance of mathematical skills should be guaranteed enough times and times for practice. Combining repeated practice with continuous practice to maintain and improve mathematical skills. Math skills exercise times and time distribution to coordinate the dispersion time to maintain the mathematical skills, effective implementation of the training time will be at the beginning of the training to ensure the short mathematics learning time, and the exercise time distance is short. After training for a certain period of time, students must appropriately extend the training time of mathematical skills, according to the actual situation of learning to consider comprehensively, and flexibly adjust the training of mathematical skills. Effective practice quality requires to master mathematical skills practice, practice in the initial stage to grasp the stable practice speed to ensure the accurate mathematical skills practice. In the process of mathematics practice, students should pay attention to the requirements of basic skills of mathematical skills. When practice reaches a certain level, the speed of mathematical exercises should be accelerated appropriately. In the degree of mathematical practice, the mathematical task is used to distinguish the learning level, and the mathematical skills are distinguished by the same mathematical task and the efficiency of the task. That is to say, mathematical skills should be in control time limit, and the classroom mathematics teaching and mathematics learning effect unified assessment, at the same time, the limited training and basic math skills of combining training follow the laws of mathematics teaching.

Based on the above content, with content and evaluation methods, it can be cultured from mathematical skills to integrate teaching resources and pay attention to the theory and practice of training the ability of elementary mathematics, the mathematical characteristics and course to adopt various practice mode. The theory of mathematical knowledge practice need to change the single way to teach and to focus on the mathematical theory of strategy selection, optimization design practice, which is not limited to knowledge teaching according to the theory of knowledge, choosing a variety of exercises, the media and teaching aids to increase training practice of mathematical skills and to strengthen students' practical skills of mathematics exercises. Specific ways include students can take watch mathematics skills video, discussion, exchange, around the phenomenon of debate, held a Book Club, carry out simulation, field observation and so on. Enable students to improve their mathematical skills, design group discussions, and integrate theory into effective learning.

Tracking of skill training. The theory of mathematical skills needs to be combined with variant exercises to keep students' math skills for attention, stimulate their interest in learning mathematics and cultivate students' mathematical skills in mathematics teaching to maintain a reasonable way of maths exercises so as for the consolidation of math skills[3]. Culture also feedback mathematical skills, strengthen tracking management in post skill training, examining exercises for mathematical skills to analyze and evaluate the harvest and error, strengthen mathematics practice inspection, timely appropriate assessment for math skills and cultivate students' self examination habits. Finally, the implementation process should pay attention to mathematical skills, pay attention to learners' quality of thinking, lead mathematical thinking activities to realize the aspect of control, to combine learning information feedback to improve students' thinking ability and logical reasoning ability, which will migrate to the math skills in combinatorial optimization grasping the mathematical skills so as to improve the learning efficiency.

As can be seen above, the curriculum reform of mathematics reflects the realistic requirements of the basic education curriculum reform, and it is also the key to adapt to the progress of mathematics specialization, which emphasizes the training and exploration of mathematical skills. In the exploration of mathematical skills theory, it always takes curriculum theory as the starting point of skills, theoretical mathematics, mathematical integration of practical skills, according to the actual needs of mathematics teaching and the different characteristics of students personalized training objectives, it should timely updates on the content of mathematics curriculum, mathematics curriculum design to constantly adjust the structure. The mathematical model of various improve comprehensive evaluation. In the emphasis of mathematics on the basis of theoretical knowledge, students need to increase the practice for mathematics skills training to strengthen students math

skills training and pay attention to students practical skills and knowledge accumulation, so that students really have higher mathematics literacy to provide a solid foundation and an inexhaustible motive force for the sustainable development of mathematics education

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