Strategies and Research of classroom Living in University Mathematics Teaching

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Summary. With the continuous deepening of the new curriculum reform and the gradual popularization of quality education, elementary school mathematics has moved from the classroom to life, changing the traditional teaching methods and ideas of the University mathematics teachers, and closely linking mathematics to life. Life-oriented teaching, as the name implies, introduces content that is closely related to life in all aspects of the University mathematics teaching content, teaching methods, teaching material preparation, and teaching language. It integrates mathematics classroom teaching with life teaching and brings students' life and mathematics closer. The distance of classroom teaching enables students to quickly establish a familiarity with mathematics knowledge, master the learning methods of mathematics knowledge, and thus achieve the purpose of improving the efficiency of mathematics classroom teaching. Through daily teaching methods, this article helps the University students to learn more easily and develop good learning attitudes and methods.

Introduction

The mathematics curriculum standard states: "Mathematics teaching should closely relate to the student's living environment, provide observation and operation opportunities from the familiar life scenes and interesting things of the students, so that students feel that mathematics is around, feel the fun of mathematics and Role, intimacy with mathematics[1-4]."However, the mathematics education courses carried out in elementary schools are actually to cultivate the mathematics thinking ability of the University students, and also accumulate relevant experience in daily life, and then establish the imagination of the University students[5-8].The content of mathematics education stems from life, and has been further developed and expanded beyond the content of life [9-12]. The main purpose of the mathematics education course carried out in elementary schools is to realize the cultivation of the pupils' thinking and let the the University students gradually grow into independent subjects with certain thinking activities [13-15]. The life of mathematics classroom teaching in the University not only meets the cognitive characteristics and age characteristics of the University students, but also meets the requirements of the new curriculum reform in China [16-17]. For this reason, in the the University mathematics classroom teaching process, teachers should creatively use the teaching materials according to the needs of the teaching and the actual situation of the students, and carry out the living the University mathematics classroom teaching activities.

The Practical Background of Classroom Living in University Mathematics Teaching

Students have problems with mathematics teaching content.

With the continuous revision of mathematics textbooks and the continuous updating of content, people are paying more and more attention to the mathematics life teaching of schools. Chinese mathematics teaching is different from foreign mathematics teaching, especially in the mathematics life teaching under the influence of traditional mathematics life teaching thoughts. At present, the teaching methods of some schools in China are relatively simple. The content of mathematics teaching strictly follows the content of textbooks, simply teaches mathematics teaching knowledge, neglects the process of students' learning and knowledge transformation, and it is difficult to grasp the students' practical ability to use knowledge. The single student's mathematics life-based

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teaching content is obviously not conducive to the overall development of students. It is difficult to stimulate students' interest and hobbies in the single mathematics life-based teaching content and textbook blunt knowledge. At the same time, the problems of students' mathematics teaching content will also be Leading students to lose confidence in their future learning career.， Therefore, under the background of the application technology of teaching resources in daily life, we should constantly combine the effective function of the application technology of teaching resources in daily life, constantly develop the teaching resources of mathematics in daily life, enrich the content of mathematics teaching, so as to stimulate students'interest in learning and promote students' all-round development.

Problems in the Examination Way of Students'Mathematics Life-oriented Teaching.

At present, most schools take the scores of the mathematics life test as the basis of students'learning ability evaluation, but only take the scores of the test as the identification method of students' learning ability. It is difficult to judge students'learning ability and their mastery of theoretical knowledge roughly from a test paper. The purpose of assessment is to confirm whether students have grasped the practical ability to solve problems. Therefore, the assessment system under the background of the new curriculum reform should have the function of gradually reflecting students'application ability. At the same time, many schools have relatively single assessment system, which is undoubtedly a great burden for students, and even has a negative impact on the healthy growth of students, and cast a shadow on students'future learning career.

Deficiencies in Mathematics Teaching Method.

At present, in the process of students'life-oriented teaching of mathematics, there are many phenomena that the position of the main body of mathematics teaching and students are reversed each other. Correspondingly, some teachers in rural areas in China have a relatively single form of mathematics teaching, lack of innovation in mathematics teaching methods, seldom use modern high-tech equipment for mathematics teaching, and lack of integration of knowledge and real life in relevant mathematics teaching. Mathematics teaching methods are dull and tedious, which to some extent restricts the improvement of students'learning ability. Whether students can relate their life to mathematical problems is the most basic and important part in the process of activating students'teaching. A single teaching method of mathematics can not only arouse students' interest, but also make students lose confidence and courage in future learning and hinder their further development.

The Significance of the University Mathematics for Life-Oriented Teaching

Improve teaching interest.

interest is the best teacher. In the new classroom, only by quickly stimulating students' interest in learning can they achieve twice the result with half the effort. Then if you incorporate the content of this lesson into real life, let the students do it quickly. For primary and lower school students, their image thinking is relatively developed. For the abstract knowledge in mathematics textbooks, most students will feel certain difficulties in learning. If teachers only explain the knowledge points to students in the teaching process, Students are prone to boredom and are not conducive to efficient student learning. The main thing is to convey the external information to the brain through its own senses, and through detailed analysis and summary, the main process of knowledge is obtained. Multimedia technology mainly has vivid and vivid image functions, as well as dynamic and static images, as well as the dubbing of pictures, which can ensure that the teaching content is displayed in different ways. The use of multimedia teaching in mathematics life teaching is through various kinds of the University students. The various stimuli provided by the senses make the the University excited and enter the learning environment relatively quickly, so that the students have a good learning state.At the same time, it also helps pupils avoid the characteristics of inattention and long-term interest, and thus arouses pupils'relatively high learning state. Introducing students'familiar daily life into mathematics teaching will make them feel intimate and familiar with the knowledge they have learned, which will help students to improve their learning enthusiasm and

interest, thus improving the effectiveness of teaching.

Improve teaching efficiency.

At present, building an efficient classroom is one of the basic goals of teacher teaching. Improving the efficiency of classroom teaching has become the main responsibility of every teacher. For the teaching of the University students, it not only needs the corresponding teaching resource concept, but also needs corresponding reform and upgrade of teaching resources, so as to improve the effectiveness of mathematics life-oriented teaching, and when the teaching resources are improved, it can be unilateral. For the teaching of mathematics life, technical repairs are carried out. In addition, it can guarantee the applicability of teaching resources to mathematics life-oriented teaching. Only in this way can we play an important role in teaching resources in school education, use teaching resources to improve the effectiveness of mathematics life-oriented teaching, and then promote the improvement of the University students' learning efficiency. It is also necessary to provide teacher guidance for teaching resource teaching in the Universitys. Only in this way can the resources application mathematics life-based teaching activities be more professional and scientific. In the teaching of elementary school mathematics, many students in the study in order to pursue the efficiency of the problem, they rarely spend time to think about problem-solving ideas, but simply rely on their own memory ability to solve problems, over time, students' thinking ability is gradually Weakening is not conducive to the improvement of students' ability. In the face of such learning status, teachers should pay attention to the cultivation of students' divergent thinking in teaching, so that students can carry out reasonable and orderly learning in a good life situation, thus improving classroom teaching efficiency.

Enhancing Application Ability.

In the context of education in the new era, one of the main objectives of teachers'teaching is to cultivate students' application ability so that they can apply what they have learned. When the knowledge and experience in life are infiltrated into mathematics teaching, students In their future daily life, they will also unconsciously think of using the mathematical knowledge they have learned to explain or solve some problems, which will help students improve their application ability and improve their mathematical literacy.

The University Mathematics Life Teaching Implementation Strategy

Use contextual role-playing to promote the connection between teaching and life.

the University mathematics is not like poetry in Chinese texts, and short texts are more interesting. Therefore, mathematics teachers should adjust the atmosphere of the classroom as easily and interesting as possible, so that students can interact with teachers in the classroom to improve the efficiency of teachers in classroom teaching. Students deeply remember what they have learned. Pupils have relatively weak self-control ability and strong curiosity. Therefore, when teachers teach in the teaching, they focus on the characteristics of students, which is conducive to the cultivation of the University students' interest in learning, and thus likes mathematics. Therefore, an efficient classroom life teaching method requires teachers to combine situational teaching, presenting the background of the text in the teaching materials, maximizing the meaning of solving mathematical problems, and giving students a good motivation for learning. Simulate the scenes in the textbooks, let the students play the role of them, increase their sense of mission to solve problems, and also easy to understand and remember. For example, when learning similar graphics, some problems are the length of the tree shadow under the streetlight; or Changes in the position of the sun, changes in the length of the figure. This is a practical problem caused by similar graphics and is somewhat difficult for the student's solution. At this point, you can artificially construct a similar situation, pull the classroom curtains up, then replace the lights or the sun with a flashlight, and observe the shadow of the pen standing upright on the desk as the light source changes.

Teaching language life, helping students understand mathematics.

Teaching language life in the process of mathematics teaching, teachers through their own mathematical language to transfer knowledge, it can be said that the main way of mathematics teaching is mathematical language. The language quality of the teacher plays an important role in

the process of imparting knowledge, in the interaction between teachers and students, or in organizing classroom activities. Mathematics has great abstraction, and most of the the University students' thinking forms are based on image thinking. If the teacher's language quality is not high, it is difficult to make the abstract mathematical knowledge easy and pleasant to understand and accept. Students can't see the interesting factors contained in mathematics, and they can't feel the connection between mathematics and life. They will feel that mathematics is boring, and they have no practical use, and gradually lose interest in learning. Therefore, on the basis of continuously improving their language quality, teachers can use some living language to help students understand mathematics knowledge, which is very necessary for students to learn mathematics knowledge.

Exercises infiltrate into life and improve mathematics application ability.

In the teaching process of elementary mathematics, the arrangement of exercises is an important part of teaching. Exercise exercises can not only help students consolidate the new knowledge they learned on that day, but also enable them to find multiple perspectives of thinking while practicing, so as to exercise their thinking ability. However, from the student level, students are not interested in exercises, and even hate completing exercises assigned by teachers. To solve this problem, teachers can infiltrate the elements of life into the exercises, so that students can understand the meaning of the exercises more quickly, so as to effectively grasp the known relationship in the questions, and smoothly complete the math homework. Therefore, when arranging related exercises, teachers can mainly arrange practical exercises and infiltrate life elements into mathematical exercises. In this process, teachers should pay attention to the improvement of students'computational ability and the cultivation of their good learning habits. In the process of the University mathematics classroom teaching, teachers should actively guide students to understand the truth that "mathematics knowledge comes from daily life and is used in daily life". Therefore, teachers should put abstract mathematics knowledge into concrete life practice, and guide students to perceive, so that students can learn to use life practice to think, analyze and solve mathematical problems, and ultimately make mathematics knowledge better applied to life and serve life. In the course of classroom teaching, teachers should expand and extend mathematics knowledge sufficiently, and set up practical and open assignments, so that students can apply and verify mathematics theory knowledge in their daily life in time. In the process, students can further consolidate mathematics theory knowledge, and improve students'mathematics by repeatedly verifying and accumulating new experience. The mastery of theoretical knowledge and practical application ability.

Conclusions

Mathematics comes from life, exists in real life, and is also used in real life. Mathematical teaching should link the classroom with the student's life, move the mathematics in life into the classroom, create a life-like situation, and guide the students to apply the mathematics they have learned to life through the language of life, so that the students do Feel the connection between mathematics and life, know that mathematics comes from life, serve life, and apply to life, thus enhancing students' understanding of mathematics and enhancing students' confidence in learning mathematics.

Reference

[1] Sexton, Matt Downton, Ann. School Mathematics Leaders' Beliefs about Their Role When Participating in a School Mathematics Project[J]. Australian University mathematics Classroom, 2014, 19(3).

[2] Festus A B. Activity -Based Learning Strategies in the Mathematics Classrooms[J]. Journal of Education & Practice, 2013.

[3] Hemmi K, Ryve A. The Culture of the Mathematics Classroom During the First School Years in Finland and Sweden[M]// Mathematics and Transition to School. 2015.

[4] Johnson W, Nyamekye F, Chazan D, et al. Teaching with Speeches: A Black Teacher Who Uses the Mathematics Classroom to Prepare Students for Life[J]. Teachers College Record, 2013, 115(2):26.

[5] Smith K, Hodson E, Brown T. The discursive production of classroom mathematics[J]. Mathematics Education Research Journal, 2013, 25(3):379-397.

[6] Achuonye K A. Predominant Teaching Strategies in Schools: Implications for Curriculum Implementation in Mathematics, Science and Technology[J]. Educational Research & Reviews, 2015, 10(15):2096-2103.

[7] Day, Lorraine Hurrell, Derek. An Explanation for the Use of Arrays to Promote the Understanding of Mental Strategies for Multiplication[J]. Australian University mathematics Classroom, 2015, 20(1).

[8] Thompson C J, Davis S B. Classroom observation data and instruction in University mathematics education: improving design and rigour[J]. Mathematics Education Research Journal, 2014, 26(2):301-323.

[9] Kaino L M, Kasanda C. Some Indigenous Strategies in Mathematics Teaching: Taking the Artefacts into the Classroom[J]. 2015, 6(1):67-74.

[10] Manyatshe S M. Media usage in the teaching of mathematics[J]. 2014.

[11] Zaranis N. The use of ICT in kindergarten for teaching addition based on realistic mathematics education[J]. Education & Information Technologies, 2016, 21(3):589-606.

[12] Biccard, Piera|Wessels, Dirk. Developing Mathematisation Practices in University mathematics Teaching through Didactisation-Based Teacher Development[J]. African Journal of Research in Mathematics Science & Technology Education, 2017, 21(1):61-73.

[13] Bailey J. Re-Envisaging the Teaching of Mathematics: One Student Teacher's Experience Learning to Teach University mathematics in a Manner Congruent with the New Zealand Curriculum.[J]. Teachers & Curriculum, 2013, 13.

[14] Davis B, Sumara D J. Challenging Images of Knowing: Complexity science and educational research[J]. International Journal of Qualitative Studies in Education, 2005, 18(3):305-321.

[15] Ismagilov T F. Embedding theorems for classes of functions with a dominating mixed modulus of smoothness[J]. Moscow University Mathematics Bulletin, 2013, 68(5):215-220.

[16] Lowther D L, Ross S M, Morrison G M. When each one has one: The influences on teaching strategies and student achievement of using laptops in the classroom[J]. Educational Technology Research & Development, 2003, 51(3):23-44.

[17] Permyakov D A. Abelian subgroups generated by Dehn twists in homeomorphism group[J]. Moscow University Mathematics Bulletin, 2013, 68(1):42-47.

[18] Peters G W, Dong A X D, Kohn R. A copula based Bayesian approach for paid–incurred claims models for non-life insurance reserving[J]. Insurance Mathematics & Economics, 2014, 59:258-278.