

03

Let our students experience arithmetic in life

Introduction

The traditional arithmetic impartation ignores the relation between the subject and the practical life of the students. This causes the loss of the learners' interest in the course as well as their motivation to acquire its essence. In some cases, the students have learned what is taught but fail to utilize it to solve the relevant practical problems.

This makes knowledge acquirement and knowledge practical application seriously disconnected while preventing the students' attainment of the fun and advantage of arithmetic learning.

Psychological research reveals that an interest for a certain practice originates from the need of it. The requirement of an objective item and the standard of the enthusiasm for it depend on the concern for and the weight of interest given to the theme. Relating arithmetic to practical life is the most effective way to elevate the students' interest to the subject, instigating them to delve into the matter. Therefore, let us forsake the past and join arithmetic to our present-day life, making our students see that arithmetic comes from life, co-exists with life and is practical in life. Help them to realize the applicability and charm of the subject and guide them to appreciate and experience arithmetic, which is ever at their side and closely related to life.

I Content being practical for life

1. Lay the content of teaching in reasonable arrangement making it feasible to life.

In the process of teaching pay heed to the applicability and practicability of the content. Some items in arithmetic are far from real life and some are even fabrications. If the students fail to grasp the essence how can they have the interest to go on?

Jean Piaget, a Swiss psychologist, believed that the materials prepared for the children's learning must be connected with something they have experienced while being fresh enough to catch their interest and to instigate their initiative to delve into the subject. Thus the content of the impartation has to be flexibly adjusted. Select and equip the students with the newest that we meet in life, along with the convincing information and statistics, etc., to quench the practical needs of the pupils, allowing them to be consistent with the development of the society.

Life is full of numerous variations making it very interesting. Life is like an arithmetic treasury with inexhaustible provision offering never-ending supplies. A teacher has to be keen on searching information from life, making use of the practical facts which the students are familiar with, interest in and closely connected with to enable them to understand and to grasp the theory easily.

First start with what the children have experienced. Then get acquainted with their sub-culture and merge the arithmetic theme into the students' living language. Most of our pupils belong to the humble stratum of the society possessing the similar cultural background. Therefore, our teachers would add or adjust the teaching materials in accordance with their cultural horizon and the feature of our school to arouse the students' eagerness to learn and to promote the efficiency of their effort to study.

2. Be parallel with the students' life experience and their environment. Then combine what is happening among the students with the teaching material. Besides adding fun to arithmetic learning we help the children to acquire an intimate relation between their actual arithmetic experience and their daily life.

A good example is to let the students learn to distinguish hour, minute and second from the television programme list. Since television programme watching is the amusement indispensable for all pupils and to be sure they are attracted to be acquainted with it. When we come to the teaching of "more than one digit" numbers, I would ask the students to bring along pieces of newspaper cutting concerning different data or statistic information. The data information includes population records, community chest collections, average salary indices, price of houses, number of crimes etc. to strengthen the students' cognition of numbers of more than one digit. Furthermore, I had designed a pedagogic activity to allow the students to fill in the amount for their father on his cheque so that they may keep reviewing the numbers of more than one digit and utilize the Arabian numerals and Chinese complex characters to write down the required number. This helps the pupils to sense the application and value of the numbers they have got in touch with and to experience the joy of applied arithmetic.

When teaching applied arithmetic, try to set the questions closely related with the life of the students and examples can be the features connected with their school, their community and their daily life, etc. Moreover, any student may be the main character of any topic to deepen the intimacy with the subject and to enhance their participation in their own question designing while feeling being respected. When the pupils draft the exercises, the teacher may guide them to perform a suitable method of manifestation, help them to see what they used to do, to perceive, and to think of and create their own practical questions. Furthermore, the theme can be multifariously arranged allowing the students to learn from each other. From the process of question construction to the stage of score calculation, the students are nourished to be creative. The joy and the sense of accomplishment from the whole process are the motivation instigating the pupils to delve into arithmetic.

II Create a living environment for teaching

For the primary school students the knowledge of arithmetic is a bit abstract, monotonous and incomprehensible. Help them to learn the subject from their living environment is the most natural pedagogic procedure. Therefore constructing a living situation profitable for teaching is indispensable. Create an environment for teaching and build a simulation of the fact to be discussed to make the classroom closer to real life. This enables the knowledge of arithmetic to be a subject perceivable, audible and touchable.

The activities of buying and selling is one of the experiences the primary school students have in their daily life and so it is easy to comprehend. As abstract calculations are helpfully supported by practical participation, I had arranged similar activities for teaching quite many of the units. For lessons of "addition and subtraction of numbers of more than one digit", "addition and subtraction of decimal numbers", "multiplication practice", "division practice", etc, I established "a little shop" in the classroom to enliven the course. Besides the practice of buying and selling in class, I helped them to make use of the knowledge of addition and subtraction of decimal numbers to understand the exact business operation of the



small store of the school. All the students were eager to participate in the activities to experience the application of the knowledge and performed field practice. The bliss and accomplishment acquired not only enabled them to solve arithmetic problem but is extended to the increase of their self-assurance. With this practice, arithmetic will never be a subject being monotonous and uninteresting or scaring any more.

III Make use of the life experience to speculate and solve problems

Allow the students to utilize their acquired knowledge to experience speculation and to solve problems. For the topic of "perimeter" the teacher may ask the pupils to take some ribbon to decorate the classroom board. He/She may raise the question of how many metres of the ribbon is needed to go round the board once and let the different groups of students to estimate the answer first and then the measuring and calculation may come later. Soon there will appear different computations. After discussion, examination and synthesizing the acquired knowledge and experience (the opposite sides of a rectangle are equal), the pupils may deduce the best scheme for working out the required length of the ribbon. Here, they would succeed to gain the strategy and method of tackling a problem. Even the themes of "metre", "centimetre", "millimetre", "cubic centimetre", etc. can also be done through the students' practical assessment first so as to discover the problem and then help them to solve it. With the children's individual participation the lesson will be happily and actively absorbed.

For the situation of remainders of the division exercises. I had set an exercise bearing remainder: 116 persons were waiting to take taxis. How many taxis would be needed to take all the waiting people? One student raised his hand and asked about the number of passengers to be taken for each taxi while questioning me if that should be four or five persons in one vehicle.

At once I praised that pupil for his careful observation. All of them offered their opinions. Some students said there could be two possibilities. For the 4 - passenger taxis, twenty-nine ones would be needed. For the 5 - passenger vehicles the answer would be twenty-three but one person had to be left behind. Therefore, it meant twenty-four taxis should be required since even the last member of the group had to take a taxi. The above mentioned scene revealed a lesson based on practical life could also obtain different answers. This proves Tao Xing Zhi's conception "Only through life experience that real education can be brought about" is very correct.

IV Observe the arithmetic examples exhibited in life and unearth the charm of "the beauty of arithmetic"

Observing arithmetic examples exhibited in life may accumulate information of the subject. For the example of diagram arrangement and plane fitting, the students may take the tile arrangement they see in their daily life for discussion during the arithmetic periods. Besides allowing the children to exert their practical skills of matching and to detect whether the plane is well fitted, we may also encourage the pupils to design their own project to manifest their creativity. As for the lessons of the triangle's function of stabilization, I had to guide the pupils to see how to add in geometrical lines to make a structure stand firmly while inviting the students to notice in what occasion of their life incidents that the stability of triangles could be adopted. The children got so interested in the topic that they eagerly responded : the crane for lifting and moving heavy weights, the bridges, ladders, lampposts, etc. When we come to the topics of perpendicular lines, parallel lines, curves, etc, we teachers may instigate the learners to discover the arithmetic message in life and let our students appreciate the beauty of arithmetic and the gracefulness of constructions to help them to perceive that : learning arithmetic is great! Arithmetic constitutes a part of our living and our life can never go without arithmetic.

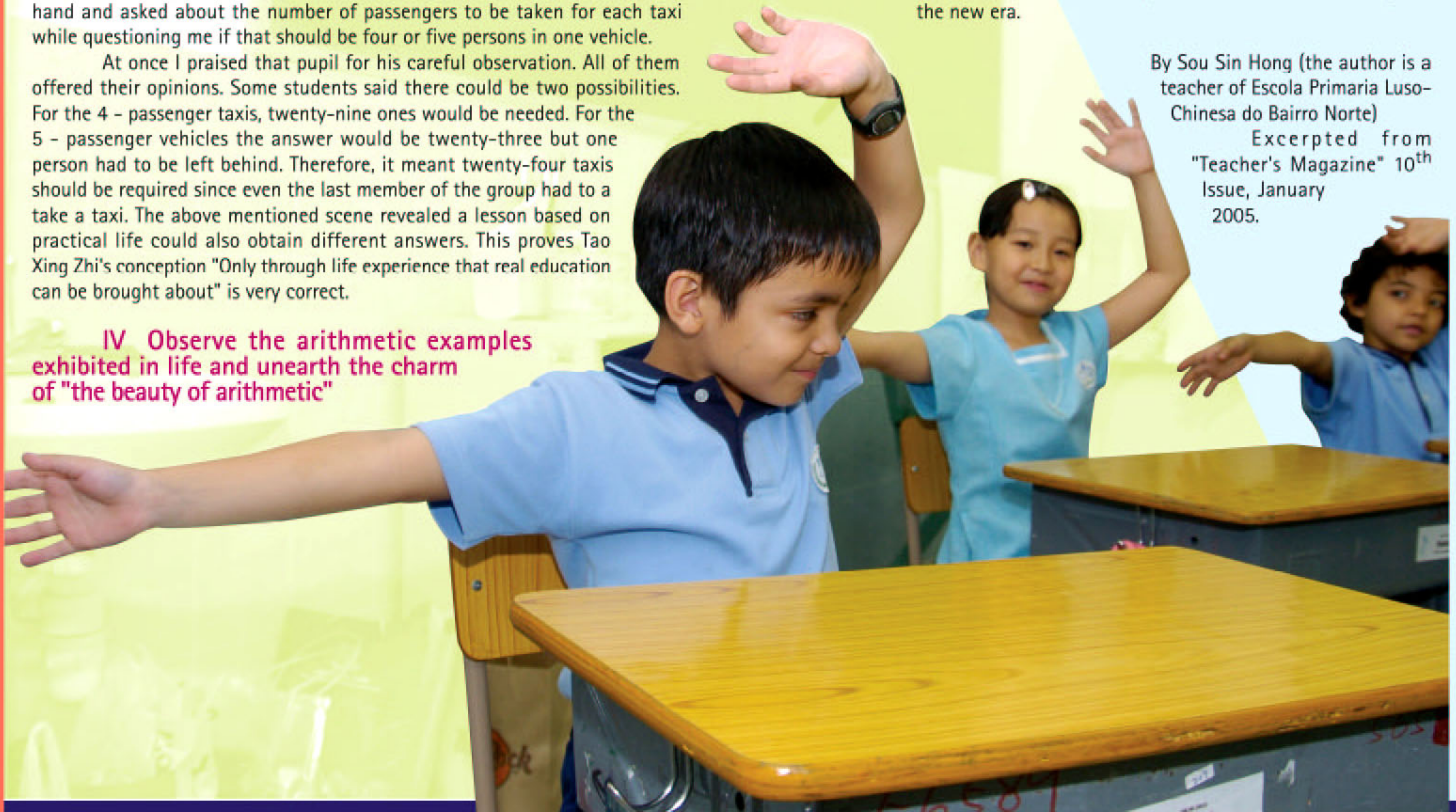
Conclusion

In conclusion, I may say arithmetic teaching must be very closely associated with our social life so as to enable our students to experience the due value of the subject and to utilize the acquired knowledge to render service to our living.

Let arithmetic teaching be filled with vitality and colour of the times. Motivate the students to learn actively leading them to appreciate the joy of being acquainted with arithmetic so that they like to get in touch with the subject and love the course. By and by, they will take the initiative to learn it, empowering themselves multidimensional capacities to meet the challenge of the new era.

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