

The Parent-Child Interaction Method in Teaching the Abacus and Mental Arithmetic

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Summary

Over several decades, the topic and development of Parent-Child Education is growing rapidly. Along with the advancement in economy and technology, parents in the developing or developed countries are starting to value the time and interaction with their children more and more, even though they are under constant pressure at work. When children are first born, their parents are the first people they interact with. Parents are also a child's first role model. The children learn from and imitate their parents who teach them how to talk, write, follow instructions, eat with a spoon, and dress themselves. Therefore, parents not only play the role of mom and dad, but they are also their children's first teacher. The most time spent between parents and their children is from birth to their teenage years. Nowadays, more and more parents are unwilling to miss their children's development stages. Their concept of upbringing is child-centered and they prefer spending more time and energy on their children's growth and education. In America, some parents may ask their company to arrange flexible work hours. This would allow them to volunteer at their child's school or chaperone for a school field trip. We all understand that during child development, the positive involvement of parents is required. However, this so called "positive involvement" not only tells parents to keep asking their children if they finished their homework yet, but also to share what they have learned, discuss with them, and make them understand that what they have learned is meaningful and interesting.

【1】 In America, the Parent-Child Interaction 【2】 Learning Method is quite popular.

In the United States, the abacus program is a new concept to most people except for Asians or those who have used the abacus before. The population of those learning how to use the abacus is minuscule. (The total Asian population is 12.5% in California and 4.5% in the United States.) 【3】 The best way to promote the abacus and mental arithmetic learning into American mainstream society is to adopt the Parent-Child Interaction Method to abacus learning. Encourage parents to participate in the abacus program and learn with their child to help them understand the culture and benefit of the abacus and mental arithmetic.

Keywords: Parent-Child Education 、 Parent-Child Interaction Learning Method 、 Parent-Child Interaction Method for Abacus Learning

1. Motivation of promoting the Parent-Child Interaction Learning Method

After coming to America, I got the chance to learn a different education system and teaching method. The American's system and method completely turned my knowledge of the traditional and systematic Taiwanese education model upside down. America is a country of mixed cultures. There is a wide variety of learning environments for children's education. The education bureaus provide different learning environments and materials for parents to help them choose which school or program best suits their children. Different schools in every school district provide different programs. Generally speaking, your child can attend the school assigned by the school district in your primary residence, go to the alternative program, or be home schooled. For new immigrants, the school district also offers the ELD (English Language Development) program to students who can not speak English. Every school has Parent-Teacher Association and each class has a Room Mother/Parent who bridges the gap between teacher and parents. Moreover, the teacher hopes that parents can volunteer in the classroom. There are all kinds of task that needs parental aid. Parents can help students with arts and crafts, correct homework, set up student contact information, and chaperone field trips. Being classroom volunteers allows parents to grasp a further understanding of the teacher's teaching method and witness their child's classroom interactions. It also gives parents and their children a common topic to discuss. Besides homework, they talk about school activities and many fun activities that occurred in class or at school. You may say that parents benefit greatly from being a classroom volunteer.

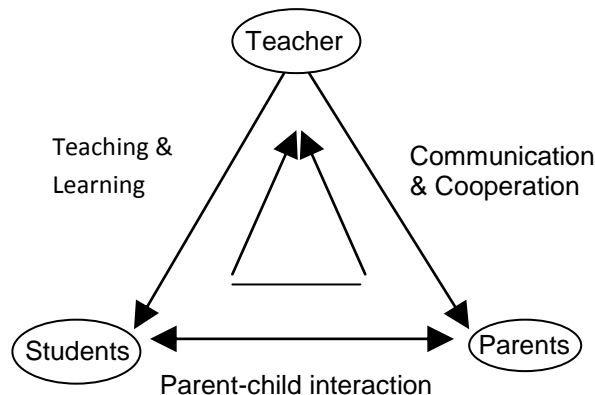
Twenty years ago, I became a member of the Parent-Child Club **【4】** funded by Dr. Sueling Chen, an expert in Early Childhood Education. This club provided a place for moms to exchange or share their parenting experiences with infant or preschool-aged children. Moms could share experiences and discuss the problems of children's upbringing. Children close in age could also play together. After exchanging experiences, besides the problems with upbringing, moms also learned that they needed to study or collect more information. Therefore, the club hosted many parent-child education seminars and invited experts to speak at the seminars non-periodically. When my son was three-years-old, I took part in the Parent Participation Program, an educational community program. The program required parental involvement in their child's learning, regardless of singing, counting, or playing. This program helped parents and their children build up a close relationship. Parents could review what they learned from the program with their children anytime after the class, and help the preschool-aged children establish proper and positive learning habits and attitudes. Because of these life experiences and education, I designed the Parent-Child Interaction Method for Abacus Learning. This teaching method requires parental participation in the child's abacus and mental arithmetic learning. The key is for parents to help their child at the right moment when he/she faces some difficulties during the learning process and encourage their child to love learning. After parents

become acquainted with one another, they would share their experiences of learning the abacus or helping their child. In the meantime, through parent-teacher interaction, a teacher could design the proper curriculum to meet the students' level.

I have been thinking of several important factors in teaching the usage of the abacus and mental arithmetic in America since I decided to teach this program. These factors are:

- (1) Students – Age differences of new beginners: especially, regard the assessment for students at age five or six.
If parents involve themselves in teaching, students will show more interest in learning and make progress.
- (2) Parents – Cultural differences and parental recognition and approval.
Strengthen parent-teacher interaction, communication, and cultural exchange; moreover, give parents a more profound understanding of the abacus and mental arithmetic.
- (3) Teacher – How to teach students from different cultural backgrounds: a wide variety of teaching materials are needed.
Blend with American-style teaching, enhance language ability, and keep a good relationship with parents.

Teacher, students, and parents are the most important and indispensable factors in teaching. Their relationship is shown below:



2. Criteria for Parent-Child interaction Method 、 Contents & Goals for the teaching materials

This so called “Parent-Child Interaction Method for Abacus Learning” lets parents participate in the new beginner class. The duration of this new class is about a year. Parents stay in the class with their child to learn the contents and see their child's attitude toward learning.

Both the parent and child can share their experiences with each other. The parent can also motivate the child's interest in learning about the abacus and mental arithmetic. After moving into the advanced class, parents are not required to stay in class; however, if students need extra help, parents may request to continually accompany their child during study for a specific time period. In the entire teaching process, parents and teacher establish a good communication channel to help students overcome their problems. It makes sure students can get help at the right time, solve confusion, keep learning, and have an effective way to learn.

(I) Criteria for the Parent-child Interaction Method in the new beginner class:

- (1) A parent is required to stay in the class with the child. No siblings!
- (2) An overly impatient and aggressive parent would be advised not to stay with the child. The teaching assistant (TA) does the job instead and the teacher will explain the contents after class.
- (3) Parent(s) with older or more independent children, who are in second grade or higher, can decide whether to stay with their child or not.
- (4) Parents should be able to help their child with homework and correct mistakes right away. They should also keep the teacher informed about the student's learning at home.

Advantage: The younger students will feel more comfortable in class if they are accompanied by their parent(s). If he/she doesn't understand the content, his/her parent can explain again. Moreover, the parent can help the student make corrections when an error is spotted. In teaching, this method may get twice the result with half the effort.

Disadvantage: Sometimes, the classroom will be very noisy or chaotic. Therefore, good classroom management is needed.

(II) Teaching contents and materials:

Along with the changes in times, the traditional teaching method needs some improvement. Good materials should be designed to attract learners' interests and help create a good teacher-student interaction. Therefore, the design of the materials focuses mainly on lively story-telling and interesting computer-aided design. This design would motivate students to enjoy learning. Besides the design of the materials 【5】, field trips can be added to the curriculum. Also, the Theory of Multiple Intelligences 【6】 is adopted to make the contents more substantial.

(III) Goals for teaching:

In a quote from an old Chinese saying: "to cultivate oneself, to put family in order, to govern a nation, and to bring peace to the world," the most important first step is to cultivate oneself. If putting this concept into the goals of teaching about the abacus and mental arithmetic,

it would be: “to teach, to inherit, to promote, and to the world.” Along with the changes in time, the teaching method will also make adjustments to comply with the trend. An artisan must first sharpen his tools if he is to do his work well. First, make the Parent-Child Interaction Method for Abacus Learning be the first line in teaching and promoting. A great teaching method will motivate students to learn. Students’ continuation in education is the key to cultivating the talented persons to inherit the tradition. If parents from different cultures know about the abacus and mental arithmetic, they would be willing to introduce the program to their country. It would be a great benefit to be able to promote abacus usage and mental arithmetic all over the world. The promotion of the abacus and mental arithmetic can start from a point, lead to a line, and eventually expand into a plane. After a given time, the abacus and mental arithmetic will become popular worldwide.

3. My Teaching Experiences

I have been teaching about the abacus and mental arithmetic in America since 1995. I have dedicated myself to the Parent-Child Interaction Method for Abacus Learning and hope that both parents and students can benefit from it. At present, many teachers in Silicon Valley, CA, USA, use the Parent-Child Interaction Method for Abacus Learning. Teachers earn the respect of parents with their sincerity and devotion to teaching in spite of the feelings of pressure from the parents attending the class. They are constantly refining their teaching because of parental supervision. Over the past ten years, the Parent-Child Interaction Learning Method helped me build up good interaction with the parents and students. The abacus and mental arithmetic are profoundly recognized by parents because of their involvement in the new beginner class. More than ten years ago, a grandparent brought her first grand child to my abacus class. Since then, she has been accompanying her third and fourth grandchild to class and never fails to attend a lesson. This grandparent is a retired elementary school teacher from Taiwan. Though she had received a Japanese-style education, she values a parent-child education. She has been accompanying her grandchildren to abacus class for several years. Although the course contents are repeated, she always believed she could learn new knowledge every time. She also thinks that accompanying her grandchildren when they are doing homework is a nice way to “tease her brain” and possibly prevent Alzheimer's disease. In another family, the mother emigrated from Taiwan with her family when she was a little girl and the father is from the Netherlands. Both of them have never taken an abacus lesson before. The mother accompanied their first child, who is currently a third grade student, to the new beginner class and he will now move into the advanced level. Their second child is accompanied by the father and has completed the first year curriculum. The father learned how to use the abacus after attending the new beginner class; he even knew how to help his child correct their mistake and work on the most challenging parts. These examples are too numerous to list here.

In order to strengthen parent-student-teacher interaction, I hosted several parent-child extracurricular activities during 2005 and 2007. These activities included the parent-child physical fitness competition, mental arithmetic demonstration, and talent show. These fun activities not only brought parents and children together, but also let me discover the various specialties of my students. In 2008, a parent voluntarily planned a field trip to visit San Francisco Fine Bakery. Besides watching the cake making and learning to make cookies, we taught students about shapes and the concepts of multiplication and fractions by using the available materials at hand. Putting the theory into practice is a fun and educational learning method.



4. Parents' opinions about the Parent-Child Interaction Learning Method

This article conducted a survey of parents from different cultural backgrounds. Their opinions are shown below.

Survey questions:

1. Why do you want your child to take the abacus and mental arithmetic class?
2. What is your expectation of your child's abacus learning?
3. Your opinion of the Parent-Child Interaction Learning method.
4. How did you encourage/motivate your child to not give up the abacus learning when he/she faces some difficulties?

Parents' opinions:

Survey 1:

- a) To learn basic counting abilities: I couldn't stand seeing him still count with his fingers in kindergarten.

- b) The math curriculum for K to third grade, which is mostly arithmetic, wasn't very challenging at their school. The pace is very slow. I wanted my children to learn abacus so they can get a head start on arithmetic and be exposed to difficult types of questions later on.
- c) First of all my child loves math and Abacus helps my child in getting better in mental math.
- d) Enhancing and improving my daughter's operational skills in math and concentration. My oldest son has a strong comprehension of math, but is careless with the operational signs, and my second son has a hard time concentrating and cannot finish the math questions on time.

Survey 2:

- a) I want my child to acquire an interest in math and build up his confidence when doing mathematics. (Thank you, teacher. He is now very confident with math.)
- b) My expectation for them is to be very quick at mental arithmetic. One of the great benefits I found in exposing them to abacus learning is that it taught them discipline in doing homework. They learned the only way to get better at abacus is doing their homework daily.
- c) I expect my child will be more patient and concentrated after learning about the abacus, and I hope she will not avoid obstacles.
- d) I hope my child can gain a correct learning attitude and learning methods, such as concentration, organization, and patience, through the abacus.

Survey 3:

- a) **Advantage:** I would know my child's progress and also know how to help him practice. If a parent stays in class with the child, the child will pay more attention. **Disadvantage:** The classroom can be much more noisy than usual.
- b) Although the Parent-Child Interaction Learning Method takes a lot of time and effort on the parents end, the benefit is great. The child can learn much easier since you can explain to them what they're doing wrong instantly.
- c) The Parent-Child Interaction Learning Method encourages my child to compete. It's always better to work with others kids which makes him more social and he gets motivated by seeing the other kids also interested in doing math.
- d) I like the Parent-Child Interaction Learning Method because it increases a sense of trust and safety for younger children.

Survey 4:

- a) I will help him setup a goal and practice schedule. When he sees his progress, he will feel motivated to learn.

- b) We really don't give them a choice. We explain to them, learning abacus is similar to eating vegetable, it may be difficult and tedious doing homework everyday, but it will strengthen your brain like exercising. Of course, when they passed a level of testing every year, they get to pick a prize.
- c) Most of the times helping him and explaining things keep him motivated. When he is stuck on something and we let him know what's wrong he feels excited or encouraged to try out the next problem on his own.
- d) My daughter faced many difficulties when learning about the abacus and mental arithmetic. I use the "bottleneck" as an example and ask her to describe which part of the bottle the rock is stuck in. She is happy to try and tells me about her progress anytime. When she passes the bottleneck, we will go eat ice cream to celebrate or make cookies to share with the family.
- e) Make my child understand the difficulties are inevitable in learning process. In addition, to give praise and to provide prizes constantly. Those challenges will be precious experiences for my child in future learning.

5. Conclusion

The Parent-Child Interaction Method for Abacus Learning is a trend. Nowadays, the time and energy that parents spend with their children has relatively increased because of the low birth rate. Parents hope that their children can learn more different skills and they love to get more involved in their children's growth. The Parent-Child Interaction Method for Abacus Learning provides a platform to fulfill the quest.

Living in the *e*-generation, the root of traditional culture of the abacus and mental arithmetic needs to be preserved and endorsed. Combining the essence of traditional culture with the new knowledge of modern technology and using the Parent-Child Interaction Learning Method may help the abacus and mental arithmetic develop a new turning point again.

References and resources:

- 【1】 : Dr. Sueling Chen and Yijing Yu: 「教出這樣的好孩子」, P. 163
- 【2】 : Minnesota Department of Education
- 【3】 : US Census Bureau -- California Population (2000 – 2009)
- 【4】 : Parent-Child Club funded in Silicon Valley, CA, USA, in 1991

【5】 : Shiow-Jy Hsieh: the design of class contents in 「如何設計美國的中文學校心算課程」; 2008 World City Cup - Abacus, Mental Arithmetic & Mathematics Competition hosted by the Chinese American Abacus Association.

【6】 : Dr. Howard Gardner: the Theory of Multiple Intelligences; 1983.

Prof. Mingye Lee: Special guest speaker from San Francisco State University, 2006 Teacher Workshop, the Chinese American Abacus Association.

【Updated】

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