

Research on the Activity Frame work of Using Visual Thinking Tools

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Abstract: The development of high order thinking has been considered as a national priority of learning. We found that visual thinking tools can improve students' high order thinking ability and it change the traditional teaching method. By using this activity frame work, the teachers can better understand what are the students are thinking about and the students can use the thinking tools to help themselves solve complex problem and discuss with other people.

Keywords: *Activity Frame work, Thinking Tool, PETA*

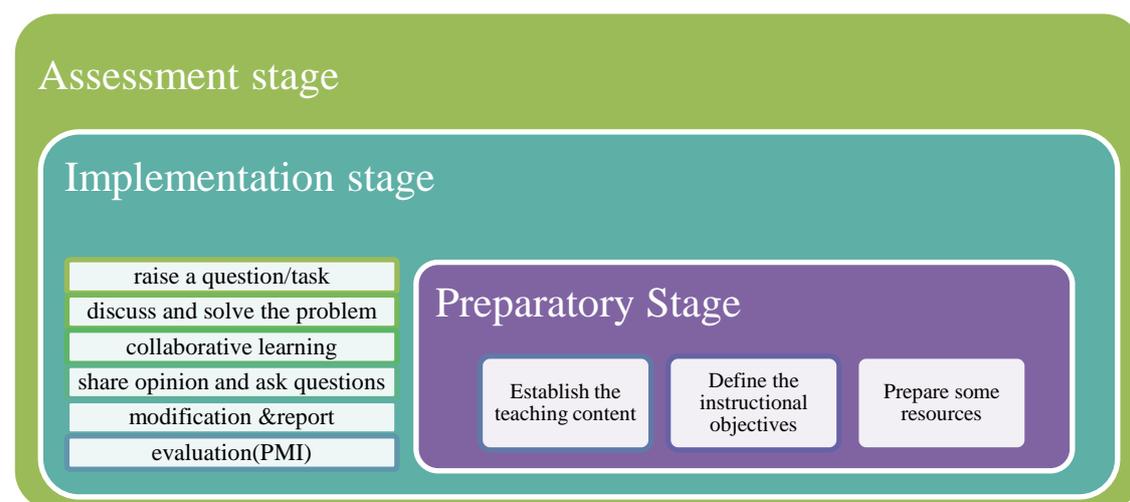
INTRODUCTION

When we talked about activity frame work, we must consider of two questions :one is what are the educational goals, another one is how are these goals to be achieved. Twenty first century can be called as a century of tremendous changes in social, economic and cultural fields. Accordingly, the most important goal of education in this century should be nurture learners that are ready to face the changing society and complexity of information explosion period. Consequently, the development of high-order thinking has been considered as a national priority of learning (Maryam Sedaghata1& Soudeh Rahmaniba 2011). When we think about how to achieved this goals, we face several problems. The first one is thinking is abstract, how to know the thinking process of our students? The second one is how to lead the students to think deeply? And the last one is how to improve it during the teaching process? And that's why we use thinking tools during the teaching process.

ACTIVITY FRAMEWORK

After we use it in the primary school in Guangzhou, China for one year, we summarize a preliminary activity frame work which is useful to promote students' high-order thinking ability and we will improve this activity framework in the later research.

Depend on the analysis of some excellent cases of PETA (Project for Enhancing thinking ability), we summarize a preliminary activity frame to improve students' high order thinking ability by using visual thinking tools.

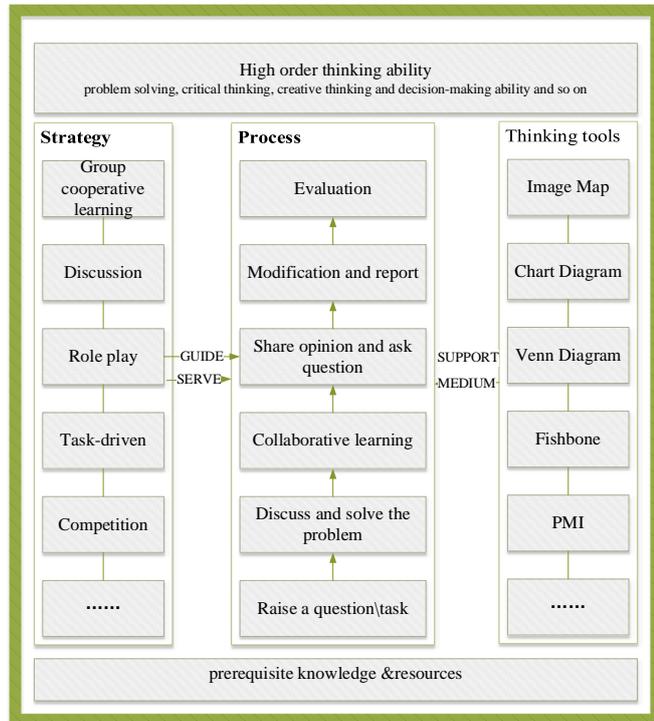


- **Preparatory Stage**

In the preparatory stage, the elementary teachers establish the teaching content and define the instructional objectives. Then according to the content and objectives, the teacher design a question or task and prepare some resources. In this session, the most important thing is to design a proper question or task depend on the goals you want to achieved. In PETA, the students are about 11 to 12 years old, sometimes they couldn't choose a proper thinking tools. So another thing is they think about is which thinking tool need to offer to the students.

- **Implementation Stage**

The implementation stage is the most important stage of this activity frame. It include the following six parts: (1) Put forward a learning problems or tasks, establish the thinking space to the students and ensure them understand the objectives of this course. (2) Discuss and solve the problem. The teacher provide some learning resources ,and the student also can find some resource including the relevant network resources, multimedia resources, such as books and materials and photos by themselves. Then the students may found the problem or ask questions, and form their point of view. (3) Using thinking tools to begin group collaborative learning. Teacher will introduce several related thinking tools and the students can choose some of them to use. And answer questions or solve the problem by finish the thinking tools. (4) The students will share their opinion and ask questions cross group. In this part,student can communicate with other group and find the disadvantage and advantage.(5) Modification and report.After that,student will modification their thinking tools and them give a presentation about it.(6)At last, the students may use the PMI Diagram or Pyramid Sheet to evaluate themselves and other group.



- **Assessment Stage**

In the assessment stage ,we will assess the teaching effectiveness with the teacher and try to improve our instructional method by the following ways:

1. Analyze the content of the student work.
2. Analyze the content of PMI or other evaluate tools.
3. Analyze the teaching video.
4. Design a questionnaire survey.
5. Interview on teachers and students.

CONCLUSION

After practiced in the primary school in Guangzhou for one year, we found that visual thinking tools can improve students' high order thinking ability and it change the traditional teaching method. The teachers can better understand what are the students are thinking about and the students can use the thinking tool to help themselves solve complex problem and discuss with other people. Of course, we know that the instructional method we said about is not perfect enough. We will try our best to improve it in the later research.

Literature Reference

Maryam Sedaghata1& Soudeh Rahmaniba(2011). A review of approaches to teaching thinking: appropriate approachfor Iran education system. Procedia Social and Behavioral Sciences 30 (2011) 1037 – 1042.