

Crazy Brush: Designing the Scribbles Environment to Improve Children' Interest in Writing

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Abstract: Writing is important because students are through written language to express their ideas to interact with others. However, only few students like writing; on the contrary, most students like scribble. We hope to improve students' interest through scribbling and writing a story on their own or with others. Step by step from scribble to writing, we want to let students feel that they are doing creative works instead of formal writing. Hence, we develop an on-line scribble environment to assist students' writing and to improve their interest of writing, entitled Crazy Brush. We facilitate students to write a story with their produce of scribble. The study process described as follow: firstly, we examined children's the produce of scribble; secondly based on the pilot results, we designed a system which would improve students' interest of writing; finally, we explained how to use Crazy Brush to assist students' writing. Future work will examine the effects of Crazy Brush and further adjustments in the system design.

Keywords: interest of writing, scribbles environment, creativity

1. Introduction

In 2003, America's National Commission on Writing proposed a concept, as "The Neglected "R": The Need for a Writing Revolution" [1]. They considered that writing can enhance students thinking, reasoning, and communication skills. So students should first learn to write and to learn better. However, the past education tends to ignore the importance of writing [1]. Besides, some studies report also indicated that students think formal writing is not bad, but they do not want to write because it is not fun [2]. Several studies [3, 4] have suggested that comic or graphic novels style could enhance students' writing interest. Words could express the full meaning of picture, and pictures could show the things that words cannot express. If we could combine writing and scribble, writing will be more fun for students to learn.

Hence, we design an on-line scribble environment to assist students' writing and to improve their interest of writing, entitled Crazy Brush. We hope the Crazy Brush system could let students draw their scribble and have fun, and meanwhile students would write a story about their scribble. In other words, students would find the interesting element from the process of drawing their scribble and transfer into writing. Next section, this paper will focus on describe the scribble system develop process and activity flow.

2. Designing the Scribble Environment: Crazy Brush

The main sources of writing include two ways: one is reading and the other is life experience. The Crazy Brush system would provide a writing channel and students could

write a story through describing others' scribble. Through the system, students could mutually share ideas and maybe they could get more creative inspirations and ideas which will not be limited to reading or experience. The study process described as follow: firstly, we examined children's the produce of scribble; secondly based on the pilot results, we designed a system which would improve students' interest of writing; finally, we explained how to use Crazy Brush to assist students' writing.

2.1 Examining the Scribble Capability of Students in Pilot

The main purpose of the pilot is to understand students' scribble and writing capability. The former means that how students can scribble a story. The latter means that how students speak their own scribble and write a story. We had ten students from a kindergarten, and they based on their ideas and created scribble on the paper in 30 minutes. After they finished scribbling, we interviewed students about their creative concept, and let students tell a story by reading their own scribble picture.

Figure 1 showed that one student's scribble picture and it means that he wanted to go to the beach. We found that most students are able to scribble and they would talk about the scribble idea. Although some students could not clearly express their meaning on the picture (Figure 2), maybe the process of scribble could stimulate students' creativity and ideas from other children. From the above initial observation results, we could find that kindergarten children already have the capacity of scribble and describe their ideas through scribble and speak.



Figure 1 Kindergarten student scribbles' picture

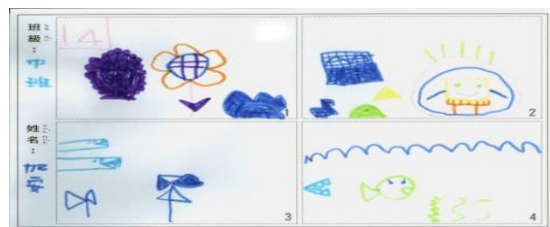


Figure 2 Kindergarten student scribbles' picture

2.2 Designing of Crazy Brush

We hope system design is flexibility and it could support various activities, whether in the classroom or after school. The Crazy Brush system function contains three parts: scribbles, story writing, and portfolio. Therefore, before using this system, students must first login ID and password.

Scribbles: The system provides the most basic functions, for example: brush, eraser, and color etc, see Figure 3. Using the eraser tool can easy clear unwanted drafts and the undo tool can quickly return to the previous step. Paper cannot provide these functions. The button design principle is intuitive which could avoid children's cognitive overload. Students could scribble through system function to name their scribble. The system will also investigate creator the sources of ideas: (1) imagination, (2) their own experience, (3) reading experience, and (4) other. After the completion of creation, the students could choose whether to share their scribble picture with others and the scribbles could become one of storytelling resources.

Story writing: Students have to write a story in light of choosing their own scribble or others'. Students can use keyboard input words or handwrite on the screen (Figure 4). Students have to input a story topic and the system will search related words. Students can write a story using related words. In this part, the system provides video and sound recording functions and students could telling a story according to their write story. After

story writing or telling, the students could choose whether to share with others and to publish to portfolio.

Portfolio: The portfolio function would collect students' scribble and story and students could review all their works. They could press the triangle button and watch others' creative writing or speech (Figure 5). Paper cannot record students scribble process, but the system provide this function. In portfolio, students can see others scribble process, and they can learn from each other. In addition, the system also provides recommend feature, students can vote their favorite creation. We hope to make writing more fun and let students do the initiative writing.



Fig. 3 Scribbles system screen



Fig. 4 System image of story writing



Fig. 5 Portfolio

2.3 Activity Design

This section describes the Crazy Brush system how to use in the classroom learning activities. In the activity, teachers provide a scribble topic. Through the topic, students cooperate with each other to scribble and to write story. The system randomly divided students into groups, 5-6 members per group, students have to collaborate to discuss and complete a scribble story with others. The learning activity includes 4 steps. Step 1, students will need to search related vocabulary with the scribble topic and discuss with group members, and complete the story. Step 2, students scribble must be completed within a limited time. Step 3 students look at scribble picture and complete story writing together. Step 4 the system randomly selects a student to share story. The Crazy Brush system can support a variety of activities, but we offer just one example here.

3. Conclusion & Future Work

Writing skills and express ability are not separate. When writing becomes a work, the students will gradually hate writing and feel pain. This study tries to combine scribble and writing activities. We designed a Crazy Brush system to assist story writing, to provide a stress-free space, and to let students showing creative. Through this approach we want to improve students' interest of writing and to let students taking the initiative writing.

Next, we will have an experiment into a kindergarten to understand students' writing situation and the effect of Crazy Brush system. We will explore to students use the system through the frequency, to determine whether the increased their interest of writing. We are hopeful that future research will provide more detailed results. Besides, we also hope to design the variety activities, and to explore the Crazy Brush system whether could train arts, literature literacy.

References

- [1] Grant, A., Hutchinson, K., Hornsby, D., & Brooke, S. (2008). Creative Pedagogies: "Art-Full" Reading and Writing. *English Teaching: Practice and Critique*, 7(1), 57-72.
- [2] National Commission on Writing. (2003). *The Neglected "R": The Need for a Writing Revolution*. Retrieved August 26, 2010, from <http://www.host-collegeboard.com/advocacy/writing/publications.html>
- [3] National Commission on Writing. (2010). *Writing, Technology and Teens* Retrieved August 26, 2010, from <http://www.host-collegeboard.com/advocacy/writing/publications.html>
- [4] Samantha, C. (2008). Comics & Graphic Novels. *Instructor*, 117(6), 28-30.