Creating Digital and Analog Storytelling for Collaborative Learning

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Abstract
About 25 years ago we developed "Gakushu(Studying) Kami-shibai (storytelling performance with picture cards) Method " and " Video Close-up System (ViCS)" for the students to create stories. In Susono's two "Educational Technology 2006" classes each group of 3 to 5 college students chose one of 1) Kami-shibai, 2) Video-camera storytelling (Storytelling using the ViCS), 3) Digital Storytelling, and produced a story within 90 seconds. The storytelling theme is "Mottainai (That's a waste.) " or "Our university". The students became interested in how and what stories are created and learned a lot collaboratively through producing storytelling..

1. Introduction
In American and European countries more and more teachers have become interested in digital storytelling during the last 10 years. A lot of students have created their stories using pictures, photos, sound, and narration. On the other hand in Japan there are few educators who know about digital storytelling. The term "Storytelling" or "Digital Storytelling" is somewhat new to Japanese teachers and students.

However we Japanese have a long history of "kami-shibai" which is a storytelling performance with picture cards, and is a traditional Japanese entertainment for children. Kuratani and Oda (1982) thought that elementary students who created their own "kami-shibai" were summarizing what they learned. They developed a "Gakushu (Studying) Kami-shibai Method". Oda (1986) also developed "Video Close-up Picture Stories" using a video camera at a close-up photography stand. Oda and Susono have promoted college students and in-service teachers creating storytelling using video cameras for about 20 years. Moreover we got interested in digital storytelling when we attended the SITE and other conferences in the US and the students in Susono's class started to create digital storytelling.

2. Storytelling using Kami-shibai or Video-camera
(1) Kami-shibai and Storytelling
In Japanese "kami" means paper and "shibai" means drama or entertainment. The performer shows pictures from scene to scene and tells a story. Kami-shibai is a bidirectional media comprised of actions and reactions between a performer and audiences. According to wikipedia http://en.wikipedia.org/wiki/Kamishibai, Kami-shibai is a form of storytelling that originated in Japanese buddhist temples in the 12th century, where monks used e-maki (picture scrolls) to convey stories with moral lessons to a mostly illiterate audience. It endured as a storytelling method for centuries, but is perhaps best known for its revival in the 1920's through the 1950's.

Kuratani and Oda focused on creating Kami-shibai by elementary students to study a subject. In the "Gakushu
Kamishibai Method", several pictures and photos are prepared by the teacher at the beginning or at the end of the study unit. Every student can construct a story using some of them and make a presentation it to the classmates. The kami-shibai work is assessed in terms of 1) amount of the description, 2) appearance of the keywords the student wrote in the scenario, and 3) construction of the story. After the elementary students in Kuratani's class produced "Gakushu Kami-shibai", we had the following results.
1) Gakushu Kami-shibai was useful for the teacher to know what the students learned.
2) The teacher was able to assess the products in terms of understanding, thinking, and constructing stories.
3) The students learned a lot as they created their Kami-shibai and shared their stories with others.

(2) Video-camera and Storytelling
Oda (1986) developed a Video Close-up System (ViCS) for college and K-12 students as well as for teachers. The ViCS consists of a video camera, a video cassette recorder (VCR), a close-up photography stand with light, and a microphone.

The setting procedure is as follows.
1) A video camera is fixed at the top of the photography stand.
2) A close-up lens is attached to the video camera.
3) A VCR is connected with the video camera and the microphone.

The students can produce video storytelling with the ViCS as follows.
1) Place pictures, photographs, charts, etc. on the stage of the close-up photography stand.
2) Set the VCR to “stand-by” to record.
3) Adjust the zoom and the focus of the camera.
4) Press the recording (stand-by) button of the VCR.
5) Record voice and sound together with the picture.
6) Press the stand-by (recording) button
7) Repeat steps 4-6.

Nowadays, video cameras are becoming smaller and lighter. So each video camera has a small liquid crystal display monitor, a tape recorder, a microphone, and a light. Therefore, if a video camera and a close-up photography stand are available, students can use the ViCS quite easily.

The ViCS equipment was not developed in order for teachers to produce videos for teaching. It was developed in order for students to summarize the subjects they have studied, the products they have made, and announce the results in the classroom and to their parents and other people.

3. Production of storytelling by college students using Kami-shibai, Video-camara, or Computer
(1) In "Educational Technology 2005" classes
In our college classes the college students who want to be teachers have used the ViCS and produced video close-up picture stories for about 25 years. And we have also introduced the method to in-service teachers in our Mie Prefecture, the school district near the university.

In Susono's two "Educational Technology 2005" classes at Kogakkan University, the students produced 47 video shows. At recording time 5 ViCS sets were prepared. The students' number and the time for producing the shows are as follows.

<table>
<thead>
<tr>
<th></th>
<th>Class A</th>
<th>Class B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>115</td>
<td>74</td>
</tr>
<tr>
<td>Groups</td>
<td>29</td>
<td>18</td>
</tr>
<tr>
<td>Hours for Preparing</td>
<td>2 h</td>
<td>2 h</td>
</tr>
<tr>
<td>Hours for Recording</td>
<td>2.5 h</td>
<td>1.5 h</td>
</tr>
</tbody>
</table>
In 2006 Susono also had two "Educational Technology" classes at Kogakkan University. The students chose one of the three production methods, 1) Kami-shibai, 2) Video-camera storytelling (Storytelling using the ViCS), 3) Digital Storytelling, though all the group produced Video-camera storytelling last year.

Susono (teacher) set the two themes of storytelling. They are "Mottainai" (That's a waste, or Wastefulness) and "Our Kogakkan University". Each of the group could choose one of the themes and create a story. Moreover, the time of storytelling must be within 90 seconds, in contrast to the students last year who were able to create them freely and without time restrictions.

The flow of producing a story is as follows.
1) The students make a group of 3-5.
2) They think and talk about the contents of the story in the group.
3) Each group creates a scenario and prepares pictures and photos. Every student shares each role.
4) After preparing the scenario
   Kami-shibai: Each group draws pictures and colors them on slightly larger papers (Fig.1).
   Video-camera: Each group draws pictures and colors them on slightly smaller papers. Next they record the pictures with voice and sound using the ViCS (Fig.2).
   Digital: Each group draws pictures and colors them on slightly smaller papers. Next they take the pictures with a image scanner or a digital camera and record voice with a software like "Sound Recorder". Lastly they compose the images and the voices with a software like "Movie Maker". (Fig.3 & 4)
5) The students view all the storytelling products.
6) They reflect their works and learning.

The students’ number and the time for producing storytelling in 2006 are as follows.

<table>
<thead>
<tr>
<th></th>
<th>Class A</th>
<th>Class B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>130</td>
<td>95</td>
</tr>
<tr>
<td>Groups</td>
<td>39</td>
<td>28</td>
</tr>
<tr>
<td>1) Kami-shibai</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>2) Video-camera</td>
<td>13</td>
<td>18</td>
</tr>
<tr>
<td>3) Digital</td>
<td>18</td>
<td>9</td>
</tr>
<tr>
<td>Hours for Preparing</td>
<td>2.5 h</td>
<td>2.5 h</td>
</tr>
</tbody>
</table>

Figure 1 A Kami-shibai Work
Figure 2 Production of Video-camera Storytelling
4. Discussion

(1) What do the students learn through creating storytelling?

The most significant thing in our practice has been that the students as well as the teacher take create roles during storytelling. While they are producing their stories, the students have had some difficulties. It is especially difficult for each group to construct a story. But they have had valuable experiences while creating their stories. What they
have learned through creating storytelling are as follows.
1) to learn a lot concerning the theme through constructing the story
2) how to construct the story using still pictures
3) how to summarize the learning products and show them to many people
4) to learn from the storytelling which the classmates produced
5) what and how to introduce the method of video picture-story shows to K-12 students
6) to collaborate in the group

(2) Collaborative learning through creating storytelling

It is important for students to do group work and produce stories collaboratively. At the first stage of storytelling,
each group has to discuss the content of the story concerning the theme and decide what and how to create the story.
Next they have to write a scenario and to draw and color some pictures or to gather and select photos. At this time
they need to share in the preparation of the work. During the recording some of them have to be actors/actresses or
narrators. And one of them sometimes has to be a director to prepare for the work and to complete it. Thus
collaboration in the group is very important.

Our survey after the storytelling production in 2005 shows that 96% of the college students thought that "I was
able to learn many things collaboratively through video storytelling".

(3) Digital or Analog?

When the students choose digital storytelling, it is easier for them to improve their stories after they notice
mistakes or places for improvement. Some college students can bring their laptop computers to the classroom and
produce the story with it. So they can use them in common larger classrooms where over 100 students study. To get
some still images into the computers, Japanese college students can use mobile phones as well as digital cameras and
image scanners, because most mobile phones in Japan have small digital cameras.

We have recommended that students create analog stories with Kami-shibai or Video-camera. In case of using the
video-camera, video recording operation is very easy for even elementary students to produce videos. As each group
records the pictures simultaneously with voice and sound, more feeling of tension arise and more cooperation is
required of the students. It is even easier and supports basic skills to write a story and draw pictures on the paper.

5. Conclusion

In Japanese K-12 schools the students have little time for storytelling. We should introduce more PBL
(Project/Problem Based Learning) and have more chances for the students to produce their own stories. Storytelling
is very useful to reflect their learning and to show what they learned to many people.

References
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