

Digital Storytelling for Professional Socialization Through Cartooning Preservice Working Experience: A Case Study

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Abstract: New teachers are often shocked at real school situations such as rules of local schools, human relationships in an enclosed environment, and the reality of teaching children. Also, some teachers cannot adapt to the working situation and tend to leave the workforce within a few years. It has become necessary to educate student teachers in the universities with a focus on adaptive professional socialization of teachers to overcome this problem. In order to address this issue, we introduced digital storytelling so that student teachers can visualize the prospective image of their practicum before it begins, and then reflect on their working experiences at the school after their practicum, taking into consideration the school situations. This digital storytelling aims to broaden the student teachers' perspective on schools as a workplace, by having them describe and share their working experiences. As a result, the student teachers could direct one's attention to the different characteristics of various schools as well, rather than just focusing on their teaching experiences.

Keywords: Digital story telling, cartoon, teacher education, professional socialization, practicum

1. Introduction

Many of the previous research focused on how to increase Pedagogical Content Knowledge (PCK) of teachers (e.g. Darling-Hammond & Bransford, 2005) when considering teachers' adaptive metacognition of a new era (Lin et al., 2005). However, in order for teachers to adapt to tackle big complex problems at schools, there is a need to focus on teachers' adaptive professional socialization (Zeichner & Gore, 1990).

The reason behind this is that the turnover rate within a few years of new teachers is high due to the reality shock they face, such as rules of the local school, human relationships, and the reality of the children (e.g. Hebert et al., 2001; Hong, 2010). As one of the reasons, a previous research pointed out that there is a gap between the teacher education at universities and the actual work at the schools, such as the teacher of the course not overlooking the pre-service teachers during the practice teaching. (Zeichner, 2010). While it has become a global trend for pre-service teachers to add on to their experience through long-term practice teaching, it is difficult for them to acquire sufficient professional socialization, since the experiences of teaching largely depend on the practice schools; they experience both successful as well as unsuccessful experiences; and the teaching of the university mentors during their practice teaching focuses mainly on PCK (Herbert et al., 2001).

We have provided a weblog community where pre-service teachers could have a dialogue based on their reports on experiences during their practice teaching, as a part of the preparation and reflection of the practice teaching (Mochizuki & Kitazawa, 2009; Kitazawa & Mochizuki, 2013). The closed community of pre-service teachers lack real-life working experiences in schools, so a course design where experienced teachers can participate, such as in pre-teaching and the weblog community, and motivate pre-service teachers to adapt professional socialization is needed. This previous research suggested that the weblog community became an important resource about professional socialization through not only providing opportunities to discuss and review mutually the practical knowledge which they learned during their practice teaching, but also through exchanging

information regarding how to communicate to children and other teachers which they could not learn at their universities, and about ways of adapting to problems at school.

In order to promote the professional socialization of pre-service teachers, as a next step of our prior research, we wish to examine the effectiveness of digital storytelling which allows the pre-service teachers to share various information regarding the practicum schools deeply with the imaginary information of their experience. Our ultimate goal is to design a learning environment that will efficiently prepare teachers with adaptability skills and a realistic view of the real-world classroom.

2. Digital Storytelling and Professional Socialization of Pre-service Teachers

Digital storytelling as a reflective tool for teacher education portfolios has been explored for these years (Barrett, 2008; Kearney, 2009). Storytelling is the oldest means for communicating ideas, sharing meaning and developing community (Egan, 1995). Bruner (1991) argued that narrative is one of the cultural products utilized by the mind to construct its sense of reality, and finally he extends the concept of personally constructed narrative into the shared experience of storytelling thus allowing the merging of individual private experience into culturally negotiated universals (Bruner, 1996). Kearney (2009) explored to link the two dynamic processes of digital storytelling and portfolio development to promote deep learning, asking the freshmen student teachers to collect artefacts from their on-campus and field-based learning experiences that showed their understanding of becoming a member of the workplace in an actual school, and compose their portfolio in the form of a digital movie and text on a paper. However, this study only focused on teaching experience in the practicum and subject-based learning in their on-campus classes.

Although such reflective activity on learning subjects and teaching experience is important, the adaptive professional socialization of teachers cannot remain at the level of the classroom because such ecological conditions are themselves products of policy decisions, political actions, and other influences at levels beyond the classroom, and the student teachers often encounter such issues during their practicum. Fenstermacher (1980) has argued that teachers' experiences with the institutional characteristics of schools are the most potent determinants of their perspectives toward teaching.

We would like to explore the possibility of digital storytelling where the student teachers describe and share their working experiences in order to broaden their perspectives of schools as a workplace, which is associated with adaptive professional socialization of teachers. In order to help the student teachers create digital storytelling about their working experiences, the VoicingBoard (Suzuki, et al., 2008) is used for the simulation (Figure 1). The VoicingBoard system makes it possible to easily draw cartoons on Internet browsers. Users create cartoons by simply dragging and

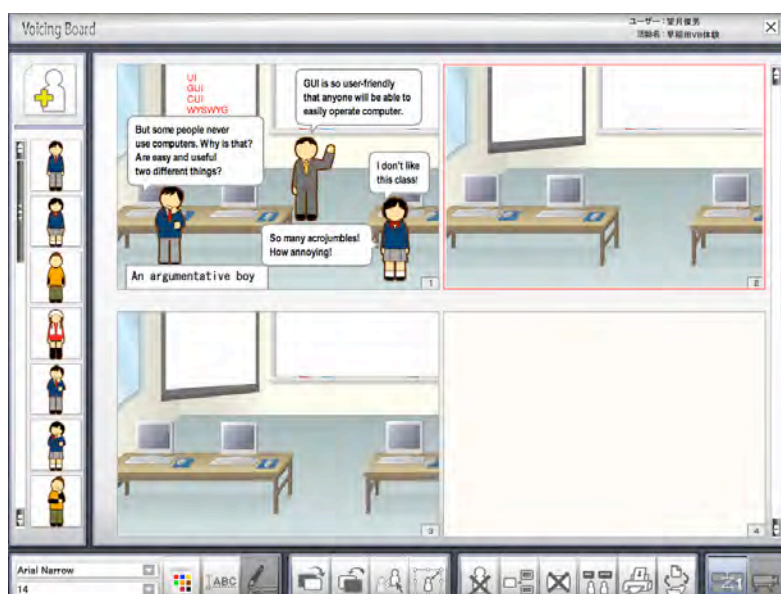


Figure 1. An example of usage of VoicingBoard, describing the teaching procedure.

dropping actors from the actor list onto one of the cells. Deleting and copying an actor can be done by simply clicking on the function buttons. Background images are also provided to enhance the reality of the cartoon. This simple operation allows learners to draw and revise their own cartoons with greater ease. In addition, drawing cartoons using various actor characters encourages the users' thoughts to be more actor-based because users are forced to select an actor first, before creating the story of the cartoon (Mochizuki, et al. 2010).

3. Research Design

3.1 Course Outline

The classroom practice which was studied in this research is "Pre-service Teacher Training 2," taught by one of the authors at a private university in Japan from April to July 2013. This course was a lesson held before and after practice teaching in an actual school for two or three weeks as a pre-service training. The student teachers who participated in this study were seven senior students (five male and two female). In the sessions held prior to the practice teaching, the pre-service teachers aimed to prepare for the practicum, acquiring step-by-step the necessary teaching skills and to brush-up their skills to create teaching plans, blackboard writing plans, and educational materials, through mutual evaluation of the teaching plans and trial lessons with the practice school. The lesson after practice teaching aimed to create a teaching portfolio so that they reflected on their practice teaching. Regarding one of the students, the practicum at the school was held in November, so he did only the activities for preparation of his practice teaching Number tables and figures consecutively, not section-wise.

3.2 Development of digital storytelling about institutional experience in the course

Both before and after the practice teaching, the students were required to tell their experience in the form of a cartoon story. The first cartoon aimed to prompt the student teachers to imagine their life in the workplace including problems, accidents, politics, work besides teaching, etc.. The second cartoon aimed to encourage the student teachers to reflect on their experiences in the practicum from the viewpoint of the institutional characteristics of schools. After the student teachers created their cartoon stories, each of them was required to tell his/her own story, showing each panel of his/her cartoon, in front of other colleagues in the classroom, before and after their practicum.

3.3 Data collection

In this study, we acquired the following three data as preliminary evaluation. First, at the end of the course before the summer vacation, we conducted a questionnaire in order to gather subjective evaluation regarding digital storytelling. Secondly, based on findings of the questionnaire, we conducted interviews about the digital storytelling. Five students participated in the interviews. Thirdly, we analyzed the diaries written as weblogs to see how much the students wrote about working in school as teachers, and whether they have taken into consideration the institutional characteristics of the school.

Regarding the analysis, we referred to Hong (2010) who is exploring institutional factors as a reason for teachers leaving their jobs. Hong analyzed the relationship among six factors: 1) commitment, 2) value, 3) emotion, 4) micropolitics, 5) efficacy and 6) knowledge and beliefs. Therefore, in this research, we defined six categories: 1) commitment towards work, 2) value and standpoint as teachers, 3) emotion, 4) micropolitics, 5) efficacy and 6) knowledge and beliefs for teaching. Furthermore, to analyze the contents of reality shock and job adjustment (e.g. Weinstein, 1988; Herbert & Worthy, 2001), we created two additional categories: 7) expectations and the reality of schools, and 8) social behavior as professionals. In this research, we focused on a total of nine

categories (eight categories above-mentioned and 9) others), and we also analyzed the contents of the diaries and comments which was submitted to the weblog community.

The first author and the second author independently analyzed the categories of the diaries of the year 2012 and the year 2013. If the diary had multiple categories, we counted each category. Additionally, when opinions regarding categorization did not match, we decided through discussion. We have also collected the cartoons as data, but we will not refer to their contents in this research.

4. Findings

4.1 Subjective Evaluation of digital storytelling

Table 1 shows the results of the questionnaire regarding the storytelling. Although one student teacher could not answer the second question because his practicum did not start when the survey was conducted, we can see that the overall evaluations are almost all positive.

Table 1: Questionnaire regarding the storytelling

Question item	Strongly Agree	Agree	Disagree	Strongly Disagree
1. Creating the story prior to practice teaching was helpful in preparing for the practice teaching. (n=7)	2	4	1	0
2. Creating the story after the practice teaching was helpful in reflecting about the profession and work life of teachers. (n=6)	2	4	0	0

4.2 Analysis of the Content of Diary Entries

Table 2 indicates the results of the analysis of the content of diary entries. We can see that there is an increase in diary entries in the categories of Commitment Towards Work, Micropolitics, and Social Behavior as Professionals. We can see that mentions of aspects of teacher's work other than teaching, such as professional conduct as teachers and micropolitics within the organization, increased. This suggests that student teachers had become cognizant of the practical daily concerns of working as teachers.

Table 2: Results of the number of categorized diary entries within the weblog community

Categories	Year 2012 (n=8)	Year 2013 (n=6)
	Diaries	Diaries
1) Commitment Towards Work	29 35.4%	51 62.2%
2) Value and Standpoint as Teachers	25 30.5%	21 25.6%
3) Emotion	50 61.0%	57 69.5%
4) Micropolitics	0 0%	6 7.3%
5) Efficacy	35 42.7%	53 64.6%
6) Knowledge and Beliefs for Teaching	49 59.8%	46 56.1%
7) Expectation and Actuality of Schools	27 32.9%	26 31.7%
8) Social Behavior as Professionals	45 54.9%	51 62.2%
Total	84 (Average 10.5)	82 (Average 13.7)

4.3 Student Teachers' Reactions in the Interview

As mentioned above, before the practice teaching, the student teachers were asked to visually storytell how they would imagine themselves to be acting in a classroom, which would be a new environment for them. A response by a student is as follows.

I was wondering what the first day would be like, because I didn't have any know-how. If I hadn't drawn anything, it would probably been a very passive practice teaching experience. By drawing the cartoon, I was able to simulate what a day would be like, and think of what I would be doing. I think these are effects of drawing the cartoon. (Student C, male)

Another student also expressed that by implementing storytelling that utilizes the VoicingBoard before the classroom practice teaching, the system aided her to simulate practice teaching and the actions and behaviors she would be taking in the school. This student's response supports the answer to the questionnaire, where a majority of the student teachers responded that storytelling before practice teaching was useful in preparing one's mindset and attitude. Furthermore, by implementing storytelling, there is a possibility that it promotes the students to think about preparing for practice teaching, or about the work and work life of teachers.

However, we also saw cases where some meaning was confirmed in storytelling before practice teaching, but the reality in the actual classroom differed.

I think it was meaningful that we imagined what it would be like before the practice teaching, but the reality was quite different from what I had imagined. It was strenuous, problems occur, and the students didn't respond. I imagined mostly positive things, but that was not so - rather, negative things happened more, so I would probably draw those things in the cartoon I'd draw after the practice teaching. (Student B, female)

It is important that reality gaps such as this is avoided, but we consider it meaningful that the student was able to realize that there are gaps, and thought it was necessary to convey the discovery as a characteristic of the workplace.

After the practice teaching, we asked about the storytelling which the purpose is to reflect on one's actions during the practice teaching. We had the following response from a student.

After drawing, I realized points where I thought 'I should have done this,' and unless you reflect on what happened, you tend to forget. It becomes a thing of the past. However, by drawing the cartoon, you remember and have a chance to reflect, and it becomes possible to pass down the knowledge by sharing on the weblog community or a diary. (Student C, male)

As with the example above, all students who experienced practice teaching responded that conducting storytelling that utilizes the VoicingBoard after the practice teaching promotes reflection of the practice teaching and on oneself. Therefore, we found that storytelling both before and after the practice teaching is effective on promoting reflection. Furthermore, by creating stories based on their experiences and sharing them, the knowledge can be passed down and given as advice to future students (Schwartz, et al., 1999).

5. Conclusion and Future Issues

In this research, we implemented storytelling before and after the practice teaching, in order to promote the professional socialization of student teachers. Before the practicum, Student teachers shared their image of prospective practice teaching and a variety of their actual working experiences, focusing on various school's characteristics. As a result, we can say that they were prompted to think about preparations for the practice teaching, and about the work and work life of teachers. Future avenues of research are recommended as follows:

- It is not yet relevant how storytelling influences the change in thoughts of an individual student. It is necessary to analyze from an organizational socialization perspective regarding the content

of the story and the process of the change; how the student captures the teaching profession in each process; and how they view their daily activities in practice teaching.

- It is necessary to analyze how the students process and give meaning to the storytelling of other students and their seniors.

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