

The comparison of the impact of storytelling and digital storytelling assignments on students' motivations for learning

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Abstract. The purpose of this study was to explore how a Digital StoryTelling (DST) assignment affected and changed students' motivations for learning English as a Foreign Language (EFL) in comparison with a StoryTelling (ST) assignment. A course entitled 'Information English' was held for Japanese university students at a faculty of information and communications in the fall term of 2014. The study goal of the course was to acquire skills and knowledge to present ideas and messages effectively with the use of Information and Communications Technology (ICT) and English. Students conducted ST tasks in the class as a midterm assignment, then created digital stories and peer-reviewed them as a final assignment. The impact of the DST assignment on students' motivations was analyzed by means of midterm and post-assessment questionnaires based on Keller's ARCS model (four categories of which are attention, relevance, confidence, and satisfaction) and compared to data collected for the ST assignment. The findings showed that most students were more motivated for learning with the DST assignment than the ST assignment.

Keywords: digital storytelling, motivation, EFL, ICT.

1. Introduction

The purpose of this study was to investigate how a DST assignment affected non-English Major students' motivations for learning English in comparison with a traditional (non-digital) ST assignment. Advances in technologies are changing

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learning activities, and DST is one of these new learning activities. DST and ST assignments were conducted in a course entitled ‘Information English’, held for Japanese university students at a faculty of information and communications over a period of 15 weeks. Numerous researchers have pointed out the effectiveness of DST in EFL education (Abdel-Hack & Helwa, 2014). Kasami (2014) focused on the comparison of the impact of essay writing and DST assignments on students’ motivations for learning and Kasami (2016) attempted to examine the impact of DST assignments on students’ perceptions of learning effectiveness.

In the research described here, the impact of the DST assignment was analyzed in terms of motivation for learning based on Keller’s (2010) ARCS model and then compared with similar results from a (non-digital) ST assignment. The following research questions were proposed:

- Does the DST assignment enhance motivation for learning more than the ST assignment?
- Does the DST assignment enhance motivation for learning in terms of aspects of ARCS when compared with the ST assignment?
- In what way does the DST assignment enhance motivation for learning more than the ST assignment?

2. Method

This study focuses on the practices of a course entitled ‘Information English’ for students at a faculty of information and communications in a university in Japan. The course was held during the fall term of 2014 (September 2014 to January 2015). The study goal was to acquire skills and knowledge to present ideas and messages effectively with the use of ICT and English. Seventy-six students participated in three courses, and two assignments were conducted at different points in the course (Figure 1).

In this course, as a midterm assignment, students were required to conduct the ST assignment in small groups. The general theme of the ST assignment was to introduce the student’s favorite object. As a final assignment, they were encouraged to create digital stories by recording their voices using software such as Windows Movie Maker and PowerPoint. The general theme of the DST assignment was ‘Tips for Better Understanding Japanese Culture’ (Figure 2).

Figure 1. The process of the two assignments

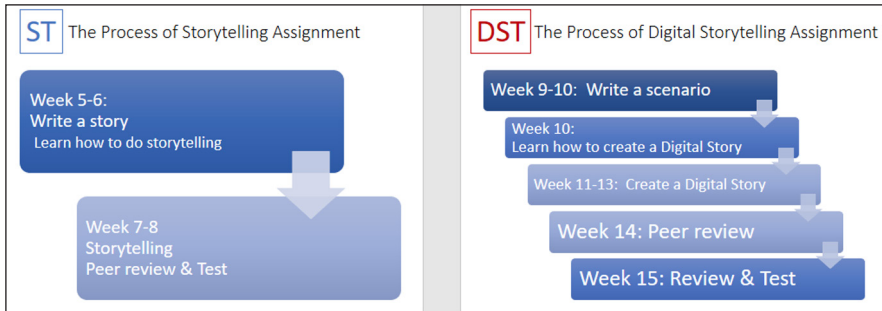
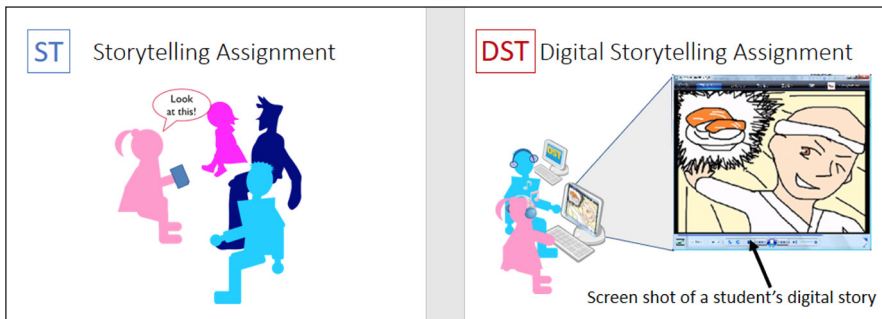


Figure 2. The images of the classroom situations during the two assignments



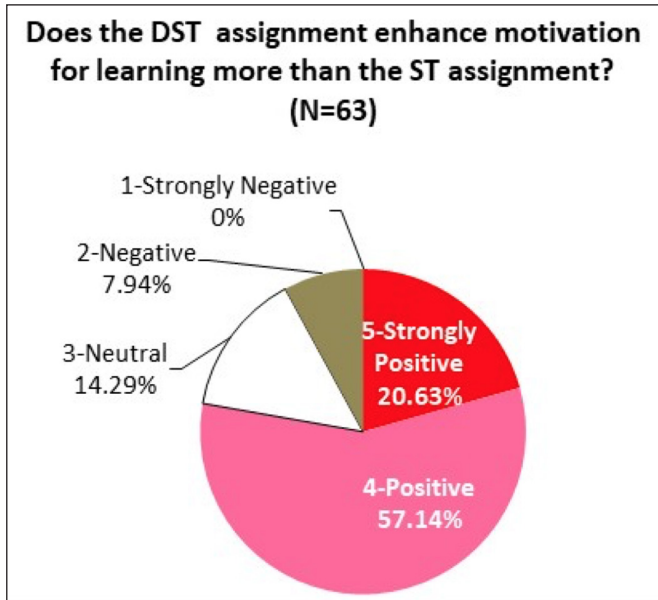
Data was collected from midterm and post-assessment questionnaires administered using Google Drive (in Week 8 and Week 15). The study comprised 63 students in three courses who had answered all (pre, midterm and post) of the questionnaires and who had taken two (midterm and final) tests.

3. Results

The results of the analysis regarding the three research questions are presented.

First, the students were asked to compare the two assignments. The first research question was ‘does the DST assignment enhance motivation for learning more than the ST assignment?’. The questionnaire was answered with a five point Likert scale (1=Strongly Negative to 5=Strongly Positive). As a result, 77.77% (49 students) of all students answered 4 (positive) or 5 (strongly positive) and 7.94 % (5 students) of all students answered 2 (negative); see [Figure 3](#).

Figure 3. The comparison of the two assignments

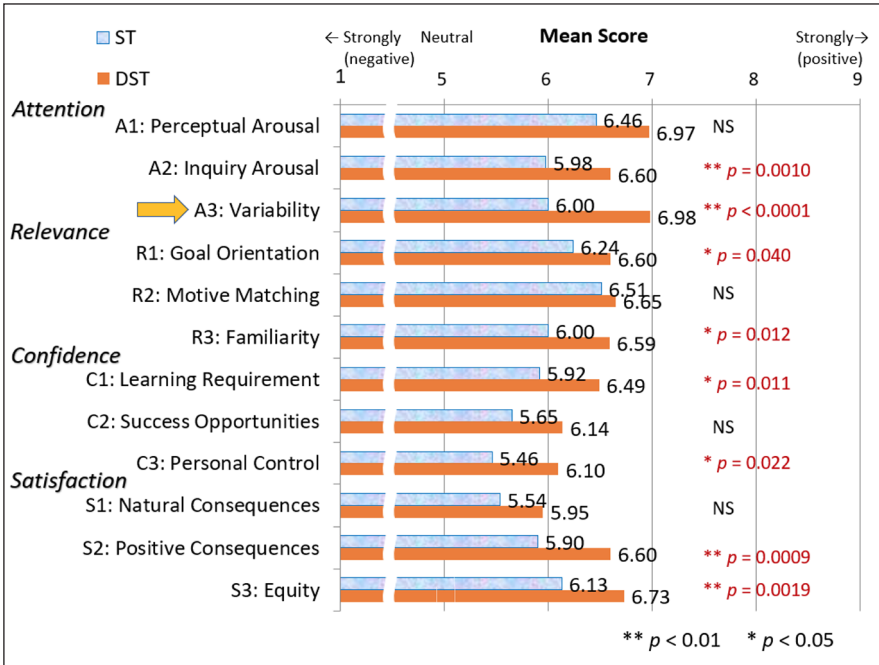


Second, the students were asked to rate both assignments (scores ranging from one to nine, where the greater numerical value represented a stronger motivating factor). The questionnaire questions were set according to 12 sub-categorical question items using a semantic differential scheme by asking how much the student felt about the assignment by placing a mark in between two adjectives opposite each other on the web (e.g. objectives were ‘vague’ vs. ‘clear’), as referred to in the research by Suzuki, Nishibuchi, Yamamoto, and Keller (2004) and based on Keller’s ARCS model. The middle score (five) means a neutral response (e.g. 1=strongly vague, 5=neutral, 9=strongly clear).

The result of a paired-sample *t*-test analyzed by IBM SPSS Statistics Version 22 showed that the mean difference between the two assignments was significant ($p < 0.05$, or the DST assignment had significantly higher mean scores than the ST assignment) in aspects of ‘A2: Inquiry Arousal’, ‘A3: Variability’, ‘R1: Goal Orientation’, ‘R3: Familiarity’, ‘C1: Learning Requirements’, ‘C3: Personal Control’, ‘S2: Positive Consequences’, and ‘S3: Equity’. Significant differences were not recognized in aspects of ‘A1: Perceptual Arousal’, ‘R2: Motive Matching’, ‘C2: Success Opportunities’, and ‘S1: Natural Consequences’. The greatest mean difference was 0.98, observed in ‘A3: Variability’ between the DST assignment ($M=6.98$, $SD=1.26$) and the ST assignment ($M=6.00$, $SD=1.49$) at the level of

significance ($t=4.731$, $df=62$, $p<0.0001$, two-tailed) (Figure 4). (The result of a Wilcoxon signed-rank test also indicated that there were significant differences ($p<0.05$) in the same aspects. The greatest difference was observed in ‘A3: Variability’ ($z=4.090$, $N\text{-Ties}=46$, $p<0.001$, two-tailed).

Figure 4. The comparison of the two assignments in terms of aspects of Keller’s ARCS model



Third, the open-ended question was presented at the end of the course. Students were asked to write down the reason why they answered so in the question of ‘Does the DST assignment enhance motivation for learning more than the ST assignment?’. Comments were given by 52 students. From all of the comments, the author and another collaborative researcher collected keywords. The following keywords had a frequency of more than five:

- enjoy/fun (ten times);
- movie (eight times);
- variability/new (seven times);

- creativity/creatively (five times);
- present my work (five times);
- self-efficacy/achievement (five times);

An example of a positive comment:

“It was a new experience for me and I enjoyed learning by creating a movie file with my narration and creating my original work as it was an unusual opportunity”.

One negative comment was noted:

“When I heard about the digital storytelling assignment for the first time, I thought it was hard to create a digital story using movie or image data with background music”.

Thus, though some students who were not familiar with using ICT might have negative first impressions, DST assignments enhanced learning motivations. This might be because many students felt that DST was new and stimulating. While they enjoyed DST by making and presenting their own work creatively, it also gave some students a sense of achievement.

4. Conclusions

The purpose of this study was to investigate the impacts of the DST assignment in terms of motivation for learning in comparison with the ST assignment. The answers to the research questions are stated below. First, according to the questionnaire results, it was revealed that 77.77% of all students were more motivated for learning with the DST assignment than with the ST assignment. Second, the DST assignment had significantly higher mean scores than the ST assignment in eight aspects of ARCS. There was the greatest difference (improvement) with the DST assignment shown in ‘A3: Variability’. Third, the most frequently used keywords included ‘enjoy’, ‘movie’, ‘variability’, ‘creativity’, ‘present my work’, and ‘self-efficacy’.

It is inferred that the DST assignment gave most students more chances to enjoy variability and it enhanced students’ motivations for learning more than the ST

assignments. The limitations of this study should be highlighted. In this course, as the theme, timing, and time spent for DST and ST assignments differed, there are possibilities that those factors might have had an impact on the results.

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