Enhancing students' writing quality and interest through story creation: From the perspective of the interest-driven creator (IDC) theory

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Abstract: There have been numerous empirical studies argue that if the students become intrinsically interested in certain specific subject, their learning performance may be facilitated. In other words, in the process of learning, interest potentially acts a crucial role and have direct impact on the learning outcomes. In addition to cognitive aspects, however, the affective aspects are also necessary to take into consideration. Therefore, how to cultivate students' interest has increasingly become a research issue recently. The objective of the present study is to propose the prototype of the six-stage story structure (4S) approach designed based on interest-driven creator (IDC) theory and expect to enhance students' learning of Chinese writing at the stage of elementary education. To this end, a series of learning activities for the 4S approach have been developed in accordance with the conceptual framework of interest and creation loop in IDC theory. To further examine the effectiveness on students' learning performance and interest, the evaluating rubrics for writing quality and interest questionnaire are developed with reference to prior literatures. Moreover, the relevant descriptions of the 4S approach are described in detail, and the future works are also discussed.

Keywords: story structure, story creation, writing quality, learning interest

1. Introduction

In daily lives, interest is one of common and significant emotional component. For instance, people have different interest in various recreation at their leisure time, such as reading, watching television, taking specific exercise, and so forth. When speaking of learning, a well-known Chinese proverb says that interest is the best instructor at initial phase of knowledge acquisition. Some Asian researchers also state that the interest is even the "mother" of learning (Wong et al., 2016). Particularly, in the viewpoint of the academic goal, interest is a crucial factor that probably influences the learning outcomes. A meta-analysis, conducted by Schiefele, Krapp, and Winteler (1992), evidently reported that learners' performance was positively correlated to their interest. Therefore, the "interest" itself is inherently related to learning and actually acts an important role in educational filed.

The interest development is essential for students in school settings; because promoting interest can help students not only become stimulated and actively engaged, but also accumulate their learning experiences (Harackiewicz, Smith, & Priniski, 2016). When a student becomes intrinsically interested in certain specific subject, he/she will be willing to pay better attention and continue to concentrate on the learning content. Furthermore, cultivating interest may contribute to students' information processing more efficiently, and therefore improve their performance. Hidi and Renninger (2006) supplementary designated that the development of interest involves learners' knowledge, positive emotion, and personal value. That is to say, the development of interest has been a research issue in the educational practices.

The construct of interest comprises situational interest and individual interest (Hidi & Renninger, 2006). How to transfer situational to individual interest have drawn educators' attentions over the two decades. For instance, the four-phase model proposed by Hidi and Renninger (2006) consist of triggering and maintenance of situational interest, and emerging and well-developing of individual interest. The research findings of Harackiewicz, Smith, and Priniski (2016), further asserted

that four categories of interventions were found to be potentially useful to progressively develop students' interest: settings of getting attention, problem-oriented learning context, arousing preceding individual interest, and enhancing of utility value.

The interest-driven creator (IDC) theory (Chen, Chi, Ciou, 2017; Wong et. al., 2015), which are developed by a group of Asian researchers, advocated a theoretical model in a macro-view. The model comprises three anchored loops, namely, interest, creation, and habit loop (Chan et al., 2018). First, the interest loop consisted of triggering of interest, immersing of interest, and extending of interest (Wong et. al., 2015). Second, the creation loop consisted imitating, combining, and staging (Chan, Looi, & Chang, 2015). Third, the habit loop consisted cueing environment, routine, and satisfaction (Chen, et al., 2015).

Recently, the IDC theory has been implanted in various subject domains. An increasing number of empirical studies put the IDC theory into educational practices and instructional design with the integral support of emerging technology. For example, underpinned by the interest loop, Chen, Chi, and Ciou (2017) designed a digital game-based learning system (called Character Monster) for pupils' Chinese character learning through the design strategies including arouse curiosity, learning by feeding, and collecting albums of Character Monsters. In addition, supported by the creation loop, Chang, Shih, and Huang (2017) constructed a social network platform (CoCoing.info) as an effective tool for the understanding of concept map. Correspondingly, Kong and Li (2016) attempted to apply the creation loop in coding education to nurture students as the creators.

Specifically, in language learning, writing is often regarded as a challenge for less skilled novices (Lee, 2016), and getting students to be less-interested possibly eventually bring about negative impact on their performance. Yet, previous studies focused on the effectiveness of writing instruction on learners' academic goal in cognition, but few research further investigated the learners' attribute in affection such as perception and interest (Graham, McKeown, Kiuhara, & Harris, 2012).

Narrative story is one kind of text genres, which is widespread in the general readings and course textbooks. The scenes or storylines in the well-organized stories often follow an underlying structure, and similarly the writing production also often logistically obey certain rules. Therefore, guiding students to organize the stories in a structured way would probably be a suitable learning strategy from story creation to writing task, and interest can also be reserved simultaneously. In line with the aforementioned consideration, how to arouse and retain students' interest and engage them in both story creation process and writing tasks would turn into the highlight of the current research.

Referring to the theoretical framework of interest loop and creation loop, this study intended to propose a blended method, called the six-stage story structure (4S) approach, based on the learning content/guidelines of writing and story creation at elementary school level. The purpose of the 4S approach is to enhance student's interest by creating an attractive and meaningful blended learning environment where students are capable to verify what they are learning through "learning by creating". It is expected that students' writing quality and their learning interest can be simultaneously enhanced through the support of the 4S approach.

2. Conceptual Model and Activity Design

2.1 Six-Stage Story Structure

The proposed approach, designed based on "six-stage story structure", was called "4S" approach in which the acronym represented the four initial s-letter. Table 1 listed the story structure (the key components of the storyline in a well-organized story) used in the 4S approach. The six-stage story structure comprised "Setting", "Theme", "Attempt", "Consequence", "Climax", and "Resolution" which were referenced to the literatures (e.g., Keating, 2011; Ukrainetz, 2006; Watanabe & Hall-Kenyon, 2011).

In order to promote the interest of the students in story writing, the clear learning supports were needed in the process. As shown in Table 1, the provided six-stage story structure potentially offered the students explicit guidelines to gradually reduce the metal loads and difficulties in writing. By following the prompts underlying the story structures step by step, the students could create their own storylines more definitely. While the students gained a sense of achievement, they would be willing to engage themselves in producing the stories and become more interested in the follow-up story creation.

Table 1

Six-stage story structure in the 4S approach

Stage	Story structure	Stage	Story structure
1	Setting	4	Consequence
2	Theme	5	Climax
3	Attempt	6	Resolution

2.2 Story Structure-Based Model for Writing

Figure 1 demonstrated the conceptual framework of the story structure-based model for Chinese writing learning. It should be noted that the story structure-based model, applied in the 4S approach and learning activities, was strengthened by the interest loop (i.e., triggering interest, immersing interest, and extending interest) and creation loop (i.e., imitating, combining, and staging).

In terms of triggering interest, the students' interest was evoked by manipulating the appealing story objects in storybooks with six-stage story structure. Regarding the immersing interest, students will engage in producing stories by themselves after their interest is evoked. In this phase, the creation loop was embedded in immersing interest. In terms of imitating, the students initially acquire the underlying story structure in the storyline. Regarding the combining, the students are encouraged to combine the information and apply the story structure in their story production. Lastly, in the staging, the students will gradually write a well-structured story and share with peers. As for the extending interest, the students may actively promote more elaborative story creation. After the interest of students increased, they would be further nurtured as a creator (i.e., story-maker or younger writer).
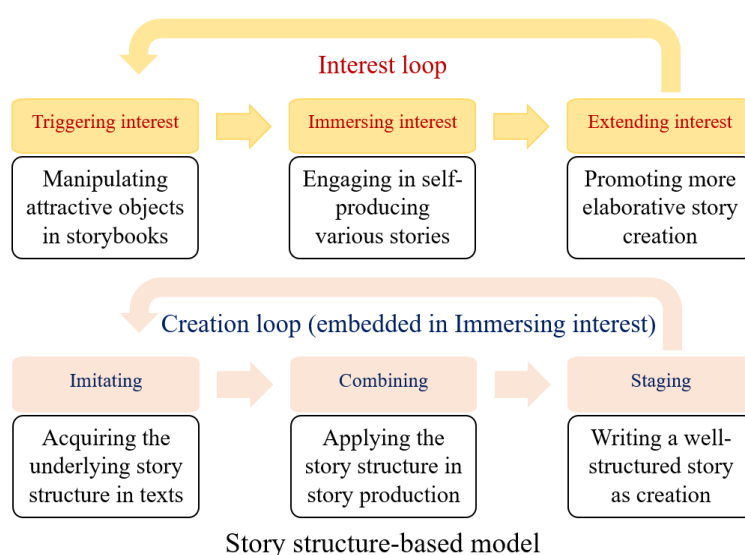

Figure 1. Interest with embedded creation loop and story structure-based model.

2.3 Prototype of Learning Activity in the 4S Approach

Figure 2 showed the blended learning activities designed in the 4S approach. All of the content in the paper-based and digital storybook used in the learning activity have been re-written in a structured way. Three storybooks in total are used in the process of learning activity, and their interfaces are designed in the same style. On the top of the storybook are the story structure and its meaning which is denoted by the question-form (i.e., using the sentence opener leading by where, who, what, when and how).

On the middle is the content of story, and on the bottom are the provided story objects which the students can select and add (by drag or slot) into the storylines. Following the underlying structure in each story, the students are guided to act as a story-teller or story-maker to modify the storyline and produce a new story on their own. In other words, the 4S approach would be one of the ways by evoking students' interest and immersive cultivating themselves into the creators.

Figure 2. Learning activity designed based on the interest and creation loop.

3. Methodology

3.1 Materials: Storybooks

The learning activities will be implemented in pupils' Chinese course, and the materials adopted in the activities are three selected storybooks. The "Cinderella" (adopted from Grimm's Fairy Tales) is a well-known tale which most students are familiar with, so it is arrange as the first storybook. In terms of the difficulties of the texts, the storylines in both the second storybook, "Fight the Evil Dragon" (adopted from Taiwanese indigenous folk legend), and the third storybooks, "Monkey Borrows the Plantain Fan" (Chinese classic novel) become more complicated and their length of story is longer. As the students have understood the underlying story structure in the "Cinderella", they can further apply them into the latter storybooks for helping better comprehension.

3.2 Measuring Instruments

Since the dependent variables are writing quality and learning interest, the performance test and interest questionnaire are used to evaluate students learning outcomes. All the students are requested to write a story with the topic "a fantastic adventure journey" in the pre-/post- test of the performance test. Two experienced Chinese teachers co-constructed the rubrics and evaluated the writing works of the students with the 9-point full marks. The quality of their writing comprises three dimensions: organization, coherence, and richness. In addition, the interest questionnaire, a 5-point Likert scale which was developed by authors based on the interest loop in IDC theory, comprises three dimensions: triggering interest (arouse curiosity), immersing interest (flow state), and extending interest (sustain to re-engage).

4. Future Works

The present study focused on the application of the interest loop (i.e., triggering, immersing, and extending) and creation loop (i.e., imitating, combining, and staging). The blended six-stage story structure (4S) approach was further designed according to the above two loops in the IDC theory. After several times of adjustment and discussion with the first-line Chinese teachers at elementary schools. The 4S approach worked because it enables student to make a direct connection between their story creation and writing quality. However, the effectiveness of the 4S approach is required to be evidently examined.

The future works are planning to conduct an experiment in two fifth-grade classes at an elementary school, and the proposed 4S approach will be applied in the writing tasks of Chinese course to compare with the conventional approach. Because the three-stage story structure (i.e., setup, confrontation, and resolution) was widely introduced in Chinese textbook in conventional approach, hence, the learning outcome by conventional approach would be a baseline for the comparison with respect to the 4S approach. We hope the upcoming experiment can help understand the improvement of writing quality and interest of students in detail.

Acknowledgements

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