Study on Production and Application of PPT Slides in Classroom Teaching of a Chinese EFL Teacher

Xiaojuan Liu
Xianyang Normal University, Xianyang, Shaanxi, China
30288288321@163.com

Abstract. With the aim exploring how the PPT slides used in advanced English theoretical class, a case study was conducted. Professor A’s assessing English writing class was observed and recorded on the spot. Two types of interviews were made among different subjects for different purposes. Three professors (B, C and D) and one student (E) participated in the first type of interview (half structured one) for the response of the professor A’s teaching by means of PPT slides; professor A received the second type of interview (structured one) for her opinions on the results of the first interview and the reasons for her slides-making and using for this class. The findings show that a set of PPT slides mixed fewer words and more tables, charts, and pictures and so on, that is to say, PPT slides based on multimodality, adding to the teacher’s own belief can really impress learners and improve teaching efficiency to some degree. Moreover, this study proves that a teacher’s self-development is a product of interaction between oneself and her environment.

Keywords: Case study · PPT slides · Multimodality · Teacher development

1 Introduction

PPT is a product of modern computer technology and present education. It has demonstrated its overwhelming strong points in teaching such as it can highlight the key and important points of the teaching content and save teachers’ writing time on board. It may also increase class information from many sources such as the words, pictures, graphs, sounds, flashes and images through Internet and create an animate class atmosphere. It can also give students a particular context of teaching and spur their interests in class. In one word, PPT is an aided teaching tool for teachers. On the other hand, it has also many negative effects if incorrectly used in concrete classes. There are many researchers who have proved the strengths as well as weaknesses in application of PPT slides (Hu Zhuanglin, 2007; Wei Qinhong, 2011; Xu Shaoqiong, 2017) [24, 28, 31]. So, which function PPT slides make is determined by their user, especially teacher.

Fund: Shaanxi Provincial Education Science Planning Project “Exploring the Professional Development of Foreign Language Teachers in Normal Universities Based on Activity Theory” Project No. SGH21Y0197.
On the base of the previous research concerned, the author takes a fraction (assessing English writing class) of the advanced theoretical course (Theories of Evaluation of English) for English majors as a case to conduct two types of interview. Based on the result of the interview above, she states the strength and weakness of professor A’s PPT slides focused mainly on the visual medium making and using for this teaching. She probes the reasons related to this professor’s PPT slides application. Then she states the strength and weakness of professor A’s PPT slides focused mainly on the visual medium making and using for this teaching. She probes the reasons related to this professor’s PPT slides application. Then she demonstrates A’s opinion on the comment from other professors and one student about her teaching aided with PPT slides. Finally, the author proposes four implications of this study for English teachers.

2 Literature Review

There are theory and some studies related to the application of multimodal PPTs. Two theories and two aspects of studies are in the following.

2.1 Theory of Multimedia Learning

“Multimedia learning is the process of learning, usually in a classroom or similarly structured environment, through the use of multimedia presentations and teaching methods”.

Quite a few researchers have studied the multimedia learning. For example, one of them, has made profound contributions recognized by all the researchers in this province. He (2001, 2) defines multimedia as the presentation of material using both words and pictures. Moreover, he (2001) proposed eight principles of multimedia instructional message after several revisions: multimedia principle, spatial contiguity principle, coherence principle, modality principle, redundancy principle, segmenting principle, personalization principle and pertaining principle. All eleven experiments Mayer made testified that multimedia could promote students’ learning efficiency.

He (2005) also founded the cognitive model of the multimedia learning on the base of the cognitive psychology (see the “Fig. 1”).

2.2 Theory of Input Enhancement

“The concept of input is perhaps the single most important concept of second language acquisition. It is trivial to point out that no individual can learn a second language without input of some sort.” (Gass, 1957, 1) [5]. Wynne Wong (2007) used a metaphor to stress the importance of input: input is like fuel for a car or a plane [20]. Without fuel, these machines cannot run. Without input, there can be no successful language acquisition.

In reality, students don’t understand all input. They can’t catch the important and difficult part of input. Another term, input enhancement (consciousness-raising) coined by Sharwood Smith (1991:118), refers to any intervention used to make specific features of second language input more salient as an effort to draw learners’ attention to these features [17]. It can be divided into typographical input enhancement and intonation (oral input) enhancement. The former is reflected in the visual text and often obtained by operating typography or using some typographical effects, such as bolding, italics,
underlying, coloring, larger font sizes, different font types and so on. A simple example can explain the nature of input enhancement. Teachers can use the typographical conventions such as underlining or capitalizing a particular grammatical surface feature to arouse learners to be attracted by anything underlined or capitalized (Rutherford & Sharwood Smith, 1985, 275) [15, 17]. Input enhancement can also be realized by using intonation and intone. So the term intonation or oral input enhancement appeared.

Of course, enhancement can be positive or negative which has been discussed by Sharwood Smith (1993, 177) [17]. Some researchers (Doughty 1991; Fotos; 1993 Jourdenais et.al 1995; Leeman Etal 1995) made experimental studies and compared the controlled group with traditional methods and the experimental group with input enhancement technique [2, 3, 11]. Results of their studies have tested that input enhancement has a positive influence on acquisition of target language items and strengthen learners’ attention.

2.3 Studies Related to Multimodal Teaching and Learning

New London Group (1996) [12] started the research on the application of multimodality in the language teaching. The application principles for the foreign language teaching and multimodal curriculum design were explored too (Stein, 2000; Royce 2002) [13, 16]. Royce (2002) studied further the complementary of different symbols in the multimodal discourse analysis and cooperatives of multimodality in the second language teaching [13]. Guichon & McLornan (2008) proposed the curriculum design principles and methods of computer assisted teaching while they researched the influence of multimodality on second language learners [6].

The following is about Chinese researchers’ findings. Hu Zhuanglin and his partner (2006) analyzed 23 PPT presentations from 2005 Cultural Festival held in Renmin University of China [23]. Another researcher told multimedia learning from multimodality learning (Gu Yueguo, 2007) [22]. Zhu Yongsheng (2008) negotiated the enlightenment of multimodality to the reform of English teaching. According to systemic functional grammar, Zhang Delu (2009a, 2009b) claimed synthesized theoretical framework of multimodality discourse [35–37, 39]. A tripartite model of language learning and teaching, namely Multimodal Information and Cognition (MIC) model is founded (Yuan Chuanyou, 2010) [34].

In foreign language teaching practice, a piece of research (Zhang Delu & Li Yuxiang, 2012), based on an English model class, analyzed the oral modality in classroom teaching is well matched with the PPT modality and discovered that different modality plays different function at different teaching step [32]. Dong Juan (2013) collected the students’ speech PPT slides from the non-English majors from common classes and advanced classes, finding that the language construction features of students’ PPT slides and the choosing tension in multimodalities [21] (see “Fig. 1”).

2.4 Studies Related to PPT in the Foreign Language Teaching

Studies about PPT application in language teaching can be dated back to 1990s. Their findings can be divided into two themes. The first theme is the design principles and techniques of PPT presentation (Howell & Deananne, 2002; Russell & Shrinner, 2001)
The second theme is the application of PPT presentation in classroom teaching (Tomei & Margaret, 2000; Brown & David 2001) [1, 19]. How to make multimedia courseware to have interactive features with PPT was discussed (Li Jun & Liu Qionghua 2004) [26]. They two also introduced functions of PPT courseware, instructional objectives, teaching rules and the basic principles of e-teaching. Thrity PPT presentations for non-English majors were used for analysis, a finding was gotten that current college freshmen’s awareness and ability of multiliteracy are comparatively poor (Wei Qinhong, 2009) [28].

On the whole, the above studies multimodal teaching and learning provide much thought and conference for this study. The relative studies on PPT in language teaching give this research some necessary knowledge about PPT making principles and electrical teaching principles and presentation principles. However, few studies are involved in the empirical research on the PPT use in English theoretical class, that is to say, what on earth the PPT functions are in the theoretical teaching, besides various principles mentioned above, what other principle should follow using PPT in advanced English theoretical teaching and the making and using of PPT and teacher’s professional development.

3 Research Design

3.1 The Study

The main aim of this study was to investigate a normal university English professor’s PPT slides used in her class. As discussed above, while little study is involved in the English theoretical course’s PPT slides. So this study focused on an English professor’s PPT slides for a half chapter (p259-p275) of the textbook for the course-Theories of Evaluation of English.

3.2 Research Questions

Taking the findings of previous research into account, this study explored a professor’s PPT slides making and using for an English theoretical course-Theories of Evaluation of English, asking three research questions:

---

Table 1. Situations of subjects of this study

<table>
<thead>
<tr>
<th>subjects</th>
<th>sex</th>
<th>age</th>
<th>teaching years</th>
<th>professional title</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>female</td>
<td>43</td>
<td>13</td>
<td>associate professor</td>
</tr>
<tr>
<td>B</td>
<td>male</td>
<td>36</td>
<td>13</td>
<td>lecturer</td>
</tr>
<tr>
<td>C</td>
<td>female</td>
<td>38</td>
<td>15</td>
<td>lecturer</td>
</tr>
<tr>
<td>D</td>
<td>female</td>
<td>43</td>
<td>20</td>
<td>associate professor</td>
</tr>
<tr>
<td>E</td>
<td>female</td>
<td>26</td>
<td>0</td>
<td>none</td>
</tr>
</tbody>
</table>

- What are the professor A’s slides like?
- What efficiency of her class is achieved by using her PPT slides?
- What are the behind reasons of making and using this set of PPT slides?

3.3 Subjects

As this is a case study, it focused on one professor and her writing assessing class by using slides. In order to conduct this study as objectively as possible, other three professors and one student were also involved in this research. Their situations were shown on the following “Table 1”.

3.4 Materials

Firstly, a background information form was developed to obtain the participants’ biographical data, including their age, gender, and English language teaching and (or) learning experiences. Secondly, an 80-min writing assessment teaching was recorded and observed simultaneously. Thirdly, two different interviews were conducted according to different subjects. One type of interview was applied to B, C, D and E. It is a simple type of interview — half structural interview. The other type of interview is a complex interview — structural one. It was operated on A. All the interview questions were based on the A’s teaching efficiency in the writing assessment. Finally, professor A’s slides and the respective questions related to two types of interview were supplied.

4 Results Discussion

4.1 The Answer to the Question 1—“What are the Professor A’s Slides Like?”

All A’s the slides concerned with her present teaching were attached in form of pictures to the end of the paper. It’s necessary to introduce them to get a main impression about her PPT slides.

There were altogether 18 slides used in her present teaching. They covered the content of the textbook (see Note 2 on page 3) from page 259 to page 275. It meant that 18 PPT slides recapped the 16 pages of the book.
Table 2. Seven questions on the PPT slides

<table>
<thead>
<tr>
<th>Pages of slides</th>
<th>Sequence of questions</th>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>1</td>
<td>What did people think of writing skill not many centuries ago? (p259, 1st paragraph.)</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>What do people think of writing skill now? (p259, 1st paragraph.)</td>
</tr>
<tr>
<td>5</td>
<td>3</td>
<td>What did experts think of the writing in the field of second language teaching? (p259, 2nd paragraph.)</td>
</tr>
<tr>
<td>6</td>
<td>4</td>
<td>What should we understand the above writing now? (p259, 2nd paragraph.)</td>
</tr>
<tr>
<td>7</td>
<td>5</td>
<td>What do you think of the job—teaching English writing?</td>
</tr>
<tr>
<td>8</td>
<td>6</td>
<td>What do you think of assessment of the above writing? (p260, 1st, 2nd, and 3rd paragraph.)</td>
</tr>
<tr>
<td>12</td>
<td>7</td>
<td>How to design assessing writing tasks?</td>
</tr>
</tbody>
</table>

The elaborate information about these slides was introduced in the following. On the first slide, professor A presented the topic of the teaching, some basic information about her such as her name and student number. Slide 2 showed her 5 teaching tasks. They were to answer 7 questions; to master 3 genres of writing language; to know 4 types of writing performance; and to understand 2 big skills of writing and to design 2 assessment tasks: imitative writing and intensive writing. Seven questions were typed on the slide 3, slide 4, slide 5, slide 6, slide 7, slide 8 and slide 12 respectively. See the following “Table 2”.

For convenience, the main information about six figures from slide 9, slide 11, slide 13, slide 14, slide 15 and slide 16 was shown here See the following “Table 3”.

Professor A’s PPT slides were characterized mainly by questions and figures or tables. There were not many words for each slide. Moreover, there were also the color usage and the change of typography. All of them got the support of the other researchers. Hu Zhuanglin (2007:5) thought there are two PPT modes: visual mode and audio one [25]. The former one includes bullet points, pictures, graphs, and color. Professor A’s slides belonged to the visual PPT mode and met all the requirements of this.

Kress & Vanleeuwen (2002) held that typography and color were the social semiotics and had their potential meaning [10]. Both of them can be looked as important modes to create meaning. The various changes of the typography could be found very clearly in A’s PPT slides. The sizes of typography on slides were changed within the range from 36 lb to 18 lb. They gave students’ eyes a comfortable feeling due to the reasonable change of sizes of font. From top to the bottom of the slide, size of the font varied from big to small. In A’s slides, green color used as background color gave people a vivid and lovely emotion which stimulated students’ attention and stirred their spirit.
Table 3. Information of Six Figures on the PPT Slides

<table>
<thead>
<tr>
<th>Pages of slides</th>
<th>Sequence of figures</th>
<th>Main information</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>1</td>
<td>Job-related writing, personal writing and academic writing constitute three genres of written language.</td>
</tr>
<tr>
<td>11</td>
<td>2</td>
<td>The relationship among taxonomy of written skills, written performance assessment tasks and nature of tasks.</td>
</tr>
<tr>
<td>13</td>
<td>3</td>
<td>Five types of imitative tasks are shown and some key words are stressed in red color.</td>
</tr>
<tr>
<td>14</td>
<td>4</td>
<td>Four types of popular imitative tasks are demonstrated and the characteristics of these tasks are emphasized in red words in a circle form.</td>
</tr>
<tr>
<td>15</td>
<td>5</td>
<td>Six types of intensive tasks are presented in individual squares. The background colors of the squares are designed as blue and green in order to tell the connected squares apart.</td>
</tr>
<tr>
<td>16</td>
<td>6</td>
<td>Three widely debated assessment issues in writing are made clear. Three issues and relative key words for each issue are declared too.</td>
</tr>
</tbody>
</table>

4.2 The Answer to the Question 2 — “What Efficiency of Her Class Achieved by Using Her PPT Slides?”

In order to ensure the interview result as reliable and objective as possible, the author did the following. Firstly, she sent more than half of A’s PPT slides to professors B, C, D and E with the permission of professor A after this class. Although A had demonstrated her all slides in class. The author sent slides in case subjects forgot the slides or some details that happened in her teaching. So the slides played the role of reminding and enhanced their impression on professor A’s class. Secondly, she listened to the recording of A’s class and read her PPT slides for several times.

At last, she called on the subjects to hold a very responsible and academic attitude to provide an objective and real response to the professor A’s class. The main purpose of the interview was to learn from each other by exploring professor A’s teaching aided by PPT slides.

After interviewing the professors B, C and D, the author got the following results about the response for professor A’s teaching. In order to give an objective picture, the results were divided into two aspects based on the positive responses and negative ones. They were demonstrated (see “Table 4” and “Table 5”).

4.2.1 The Interpretation and Discussion of the “Table 4”

Professor B said professor A’s hard teaching and students’ hard study, which had two different illustrations. The first one is that A urged students to think about questions. The second one is that A was hard to make her understood due to her expression ability
Table 4. Positive Responses to the First Type of Interview

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Positive opinions on A’s teaching with PPT slides</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>A taught very hard and the students listened to her lesson hard too. Her teaching was impressive and informational. Her PPT slides were designed well and teaching pace was appropriate.</td>
</tr>
<tr>
<td>C</td>
<td>A taught very clearly. Her teaching seemed to take part in teaching contest. The biggest advantage of her slides was that they highlighted the key points rather than covered all the content evenly from the textbook.</td>
</tr>
<tr>
<td>D</td>
<td>A’s teaching approach belonged to that of heuristic teaching. This teaching needed high demand for a teacher. A’s whole teaching design was good. The slides had rich varieties such as table, figures, and arrows and so on.</td>
</tr>
<tr>
<td>E</td>
<td>A’s whole class was very clear. She had a sense of humor and showed her confidence naturally in the class. Her PPT slides were made very well.</td>
</tr>
</tbody>
</table>

sometimes. Here, teaching pace especially pointed to the speed of turning the slides. It meant she didn’t act as a slides player. Because turning the slides too quickly is a behavior which is not respectful to students. Professor C mentioned her teaching was clear, which proved the positive function of TTP slides. C said A seemed to participate in teaching contest. From another perspective, C implied that A must have made much effort in preparation for this presentation. It can be seen from the particular design of the PPT. C caught the biggest feature and the key meaning of the “PowerPoint”, it means strong point. It implies that PowerPoint is used to highlight or stress something. Professor D spoke out A’s teaching feature or style-heuristic teaching shown by frequent questions on slides and A’s real teaching. D also stated that A’s PPT slides were various and changeable. Good design was mentioned too in her comment. Varied slides, undoubtedly contributed to the well-designed teaching. Student E mentioned A’s teaching was also clear. She praised A’s slides abstractly without supporting details.

4.2.2 The Interpretation and Discussion of “Table 5”

Except student E, each professor pointed out professor A’s teaching problems. E didn’t express her idea, probably because she feared to challenge professor’s authority. The left three professors held an open mind to focus on A’s questions and slides format. For questions, they didn’t think the quantity and quality of them satisfactory. There were some relatively low-leveled and high-leveled questions on slides and in A’s class which didn’t match the students’ language level. Professor D expressed her disagreement for D preferred the simple ones than time-consuming but not eye-catching and beautiful slides. Much more beautiful and attractive slides are easily accessible on Internet. So she emphasized the meaning over form.

Furthermore, A’s long warming-up step and expression ability were also mentioned, though they were not related directly to PPT making and using, they affected the whole teaching effect from the macro prospective aspect. As to the a little dark green background
Table 5. Negative Responses to the First Type of Interview

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Negative opinions on A’s teaching with PPT slides</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>Many questions might bring more pressure to the students. Before giving the teaching to the students, A should have better considered the students’ language level.</td>
</tr>
<tr>
<td>C</td>
<td>Some questions were too easy to answer. To graduates, the key questions were enough. The warming-up section was a little longer.</td>
</tr>
<tr>
<td>D</td>
<td>To tell the truth, I didn’t totally agree with A’s PPT slides format. Although A spent a lot of time making them, they couldn’t get students’ more attention due to the much more beautiful slides from the Internet. Compared with form, content was more important. I preferred the simple PPT slides. A needed to improve her expressive ability in English. The background color - green was a little dark.</td>
</tr>
<tr>
<td>E</td>
<td>I had no negative comment on A’s teaching.</td>
</tr>
</tbody>
</table>

of slides, the color was affected by more factors such as photo taking techniques or angles or private cell phone quality.

4.3 The Answer to the Question 3—“What are the Underlying Reasons for Making and Using This Set of PPT Slides?”

The author purposely interviewed the professor A and she told her all the story related to this set of PPT slides. Her story was the following.

A admitted that she had begun to prepare her teaching including PPT slides making very early before the deadline due to the assignment required by the professor of the course - Theories of Evaluation of Language. As a doctorate student in English education, she took this compulsory course seriously. During her teaching preparation, she felt unsatisfied with many other people’s slides but she couldn’t tell her reasons. She, of course, could not provide satisfactory slides on her own. Then she took actions by following Yang luxin’s contradiction and actions in teacher’s development (Yang, 2019) [33].

With the purpose of finishing well her professor’s assignment of making a presentation of a teaching based on half chapter with PPT slides, she started to read paper or material concerned about them including several theses. Then she designed her own PPT slides. This was a long process of toil. She read the chapter related to the textbook very thoroughly while she was making PPT slides. It seemed that she wanted to digest every word, every sentence of about 16 pages she would cover. She also thought over how to converse these words more efficiently into their counterpart, such as tables or figures.

Because the common knowledge told her PPT slides shouldn’t be filled with only words. The basic requirement was that the word slide and table or figure slide should appear by turns. It was because graphs, charts, pictures can highlight key information and classify all kinds of information more efficiently. Thinking took up much her teaching preparation time. It was also the first time for her to design tables or figures. She usually drew the figure or table on the paper first then she drew them again on PPT slides on
computer. Undoubtedly, she was unfamiliar with the drawing tools and the ready items on computer, which called for her more time to put in the whole slides making.

When asked why she used so many questions, she answered that this was due to her teaching belief. She claimed that PPT slides could reflect her special idea on teaching. She wanted her questions in class to arouse students especially graduates think.

This teaching belief was also from her professor of another course. She totally agreed with this professor on the teaching issue. Although there were 18 slides, 7 slides of them were question ones. On each of these 7 slides there was only one question. It looked that professor A wasted the space of slides on the surface. In fact, one question on one slide could attract students’ focus on one task without further burden of other distracters. It might raise the teaching efficiency. In one word, simplicity and clearness were two obvious features about her slides.

4.4 Professor A’s Response to the Positive and Negative Responses from the First Interview

When A learned about the response from the other professors and the student to her teaching, she admitted the positive response and felt her efforts were rewarding; however, she also said that she hadn’t consulted other textbooks or reference concerned due to the time limit. She also mentioned it was a pity that there was no video item on her slide about writing assessment although she searched on the Internet but failed to find an appropriate one.

For the negative response, she accepted most of them and claimed that she would revise her teaching. However, she didn’t agree with the professor D partially. For the PPT design, professor A strongly declared that content of the teaching was important, the form (PPT slides) of presenting the content was important too. Form serves content – this is a publicly accepted rule. From the above research result and interpretation, it not only proves PPT slides’ real function in realistic teaching by its own highlighting advantages through tables, figures, colors and some other means. In order to use them better, it cannot do without teacher’s effort, beliefs and some qualities. From this teacher’s first trial, we can see that she purposely planned to develop herself due to her dissatisfaction with other teachers’ opinion of PPT and motivation to finish her professor’s assignment better. In order to obtain this purpose, she read more readings, together with the influence of her professor’s PPT style, she dared to make her PPT. From this testing experience, she got development in the aspect of making PPT and she understood the theory more deeply. Moreover, she benefited much more from the feedback from the interview.

5 Conclusion

The implications of this research provided for teachers are the following: Firstly, thanks to the theory on PPT slides, professor A’s slides reached success to much degree. Secondly, this study also provides another valuable implication for a teacher, that is the position of PPT slides in whole teaching. Last but not least, as a modern teacher, he needs to keep alert on all the issues related to the teaching field and try to develop himself by solving practical problems.
Acknowledgements. I would like to thank Yunquan Liao, an associate Professor, one of my colleagues from School of Foreign Languages of Xianyang Normal University. He helped me to sharpen my language and correct some mistakes in my article.

Authors’ Contributions. This paper is independently completed by Xiaojuan Liu.

References

30. Wu, Ronghua. 2011. The research on strategy for improving the teaching quality of university by using the teaching media of PPT. North-East Normal University.
**Open Access** This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (http://creativecommons.org/licenses/by-nc/4.0/), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter’s Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter’s Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.