

Teaching Digital Texts: A Multi-Modal Approach

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Abstract. Digital texts such as PowerPoint/Keynote presentations and online blogs among others are becoming commonplace texts in TESOL (Teaching English to Speakers of Other Languages) contexts. These are often used in classrooms to present information to students or created by the students themselves. However, research suggests that creating and/or processing digital texts is more complex than what has been accounted for in existing educational research. Such complexity is due to the multi-modal nature of digitally created texts. For example, PowerPoint/Keynote presentations combine spoken words (spoken mode) with written words (written mode) and images (visual mode). Therefore, creating and understanding multi-modal texts can be complex for students because they not only have to simultaneously process the different modes, but also translate them into their own language. Traditionally, students are trained to work with spoken/written modes only; current TESOL curricula do not train them to understand graphic modes or how graphic modes combine with spoken/written modes to create overall meaning.

This study summarizes the current research in this area and suggests that a multi-modal classroom approach is necessary for students/teachers to improve the creation and comprehension of digital texts. In order to create this approach it will align two areas of research, SFG research and TESOL reading comprehension research. Moreover, practical examples of this suggested approach will be given using student created digital texts

Keywords: Digital, Multi-Modal, Images, Text Relations, SFG, TESOL.

1. Introduction

The rapid development of digital texts offers many new opportunities for learners to express themselves. These new texts, which systemic functional grammar (SFG) researchers call multi-modal texts, are already widespread, for example, in PowerPoint/Keynote presentations, online weblogs, online learning software such as Moodle or Blackboard, text messages, and websites such as Facebook. However, new pedagogical opportunities create new pedagogical challenges. To effectively create and/or comprehend digital texts such as PowerPoint/Keynote classroom presentations, students must combine the rules of written modality, where words are placed in sentences according to linear linguistic rules, with the rules of graphic text modality, where visual elements are placed in pictures according to spatial rules of design (Kress and Van Leeuwen, 2006, pp. 16–44). Furthermore, processing multi-modal texts may also be difficult because even though some multi-modal texts appear to be simple ways of presenting information, the underlying relationships can be complex. This is due to the effect of “naturalization” where complex underlying semiotic relationships can be hidden by experienced multi-modal writers to create cohesive texts (Unsworth, 2008, p. 378).

Moreover, this research suggests that existing grammars and classroom methodologies are insufficient for teaching these new multi-modal texts because they are only based on traditional written/spoken modes. Therefore, when teachers ask students to create or listen to a digital text, they are asking them to perform a complex task they have no direct training in. Indeed, at present, the majority of teachers have little or no training in the complex rules of visual design, let alone how visual elements can be effectively combined with written elements to create meaning. Current teacher training courses do not include multi-modal training, and many students who have grown up creating multi-modal texts such as online blogs may have more specialized knowledge than their teachers. Bhatia (2006, p. 281) has pointed out that many teachers still believe in “compensatory hypothesis,” wherein the only function of visual-based texts is to “fill the deficiency gap left by the verbal component.” Consequently, new multi-modal pedagogical approaches must be developed if teachers and students are to meet the challenge of processing and creating effective digital texts in this ever-changing digital world.

2. Defining Multi-Modal Text Relations for the Classroom

2.1. SFG Relationships of Concurrence and Complementation

While in a TESOL context there is a clear need to develop a multi-modal pedagogical approach, currently a comprehensive pedagogical language or approach that can be used for the teaching of multi-modal texts has not been agreed upon. If teachers have no agreed upon language to talk about texts, there are no existing definitions that allow teachers to make rules of thumb that can be communicated to the students. This paper argues a starting point for creating a multi-modal pedagogical approach is to begin defining multi-modal text relations and show how these definitions can be practically applied to the classroom.

This study focuses on only two types of multi-modal text relations (for a full treatment, see Unsworth, 2008). First is concurrence, where graphic and written texts combine to send very similar messages. This type of simple graphic/written text relationship is already used extensively and successfully in the classroom, although it has never been formally defined for teaching. For example, vocabulary cards effectively employ relationships of concurrence to facilitate learning. If a teacher is teaching a new word to a class, a common technique is to show an image of the word on one side of a card with the actual word on the other. A classroom example of this, which will be used throughout this paper, would be teaching the verb “fishing,” wherein the teacher would show an image of a person fishing and support it with the written word “fishing.” Here, the visual and written texts concur and send identical messages.

The second, more ambiguous, multi-modal text relation is complementation where the graphic and written texts combine to send messages that, while closely related, do not repeat each other but rather augment each other to communicate the overall message of the text to the reader. Here, rather than reiterating each other, the graphic and written texts contain closely related information. Returning to the example of vocabulary cards, in relationships of complementation, the image on the card would contain the picture of the man fishing but the words displayed on the back would say, “relaxing on my day off.” The image and words are closely related but not directly related. In other words, one meaning complements the other. Relationships of complementation are regularly used when teaching more abstract vocabulary items such as the five senses or emotions. Other common multi-modal texts that utilize these extremely complex relationships are narrative stories in movies or comic books.

This SFG grammar-based research, which suggests that multi-modal text relations of concurrence and complementation are clearly discernible in texts, is significant because TESOL-based research has shown that these underlying multi-modal text relations can have complex effects on student’s comprehension.

2.2. The Effects of Concurrence and Complementation on Textual Comprehension

Classroom research, as summarized in Table 1, suggests that these multi-modal text relations of concurrence and complementation have four effects on comprehension (Lui, 2004, pp. 235–239).

Table 1: Summary of the Effects of Concurrence and Complementation on Comprehension

Multi-Modal Text Relation	Effects on Comprehension	Relationship between Students Proficiency and Text
Concurrence	Support	Below
Concurrence	Redundancy	Above
Complementation	Incomprehension	Below
Complementation	Miscomprehension	Below

As shown in the table, concurrence creates two effects on comprehension, support, and redundancy. Concurrence creates support when the students’ proficiency level is just below the level of the oral/written text. Returning to the example of the vocabulary cards, students who do not understand the word “fishing” can use the image to infer the meaning of the word. However, concurrence can also create redundancy when the students’ proficiency level is above the level of the written/oral text. Thus, students do not need the graphic text to infer the meaning of the words and do not use it.

Complementation, as shown in Table 1, also creates two effects, incomprehension and miscomprehension. Complementation creates incomprehension when the students’ proficiency is lower than the words in the text. The lack of textual integration means students cannot use the images to infer the meaning of the words, preventing them from understanding the text. Again, returning to the example of

vocabulary cards used above, when the teachers show the students the image of the man fishing accompanied by the words “relaxing on the weekend,” lower proficiency students may have difficulty understanding the words on the text because the image is not directly related to the words. Consequently, students realize that the written text does not support the words and give up trying to understand the meaning of the words.

Multi-modal relations of complementation also create miscomprehension when the students’ proficiency level is lower than the written text. However, in this type of relationship, the students make the wrong assumptions about the multi-modal text relationship. They assume that the graphic text does reiterate the information in the written/spoken text, that is, that the graphic text supports the words. However, the lack of harmony between the clues of the written text and the graphic text creates processing difficulties. The students then make the wrong inferences about the text. Thus, the graphic text hinders the comprehension of the written text. Again, returning to the example of the technique of the vocabulary cards and the image of the man fishing, students would mistakenly speculate that relaxing on the weekend and fishing mean the same thing.

TESOL research has shown that multi-modal relations, defined in SFG research as concordance and complementation, can produce complex effects on comprehension (comprehension, redundancy, miscomprehension, and incomprehension). Moreover, there is a close relationship between the students’ proficiency level and the level of text being processed. Next, this paper will now show how these findings can be applied to the classroom.

2.3. Applying Multi-Modal Relations to the Classroom

Creating a practical definition of multi-modal text relations, as outlined above, is an important starting point for a multi-modal pedagogical approach. In the pre-digital society dominated by the printed word, defining linguistic relations (from the traditional grammar of Latin and Greek to the more modern approaches such as Consciousness Raising) had always played a role in education. In this developing digital society, where the printed page is being replaced by texts that incorporate graphics, defining multi-modal text relations must play a similar educational role.

For example, in teaching reading or listening, standard classroom activities (textual comparisons, assessments, and so on) are possible because underlying textual relationships in written/spoken texts can be expressed explicitly. Thus, various methods of linguistic description, whether traditional grammars or modern communicative approaches such as discourse analysis or pragmatics, that already exist for written/spoken texts assist the teaching of those texts in the classroom. If similar methods of description can be created for multi-modal text relations, this should help teachers and students explicitly talk about multi-modal texts in the classroom. Being able to talk about multi-modal relationships should, in turn, assist the teaching of multi-modal texts. For example, the ability to explicitly articulate multi-modal relationships can make possible textual comparisons between different multi-modal texts, examination of writers/illustrators choices in textual constructions, and assessment of the effectiveness of those textual choices, among others (Unsworth, 2008, p. 378).

In a TESOL context, an example of how a definition of multi-modal text relations would assist teaching would be the ability to give more effective feedback. Currently, for example, if a teacher is teaching a writing class, the teacher can make decisions about whether or not to introduce “paragraphs” that contain “topic sentences” and “supporting sentences” to students. Equally, once the students have produced their paragraphs, teachers can use the pedagogical meta-language they have established with the students to give feedback on their performance. Consequently, in multi-modal texts the relationships of concurrence and complementation can be used to give multi-modal text feedback. An example of how this can be done will be illustrated next using a student created multi-modal text, a classroom presentation.

In the following slide, the student explains the phenomenon of “hitting the wall” (a type of fatigue marathon runners experience) to fellow intermediate English learners. The slide is designed to support the students spoken statement: “Hitting the wall- almost all marathoners experience a common phenomenon known as hitting the wall.” Then, the multi-modal text relations of concurrence and complementation are used to analyze the slide to show the potential strengths and weaknesses of each slide based on the research findings outlined above.

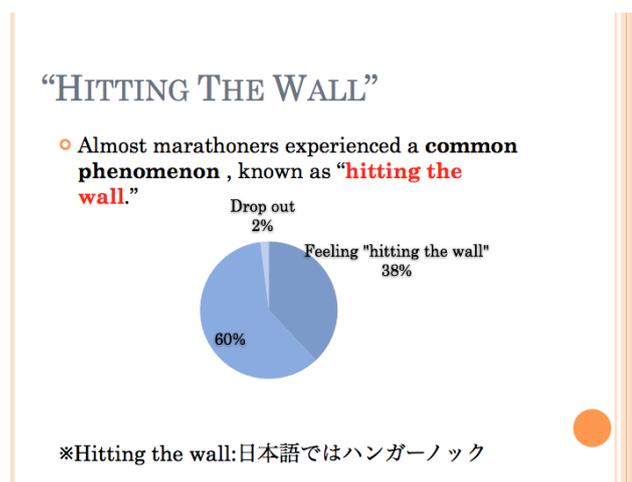


Fig.1: Students Slide

Strengths of slide 1:

High degree of concurrence – The key concept the speaker is attempting to communicate (hitting the wall) is reiterated using both oral and visual modes. Moreover, this concurrence is strengthened by the repetition of the key words for L1 listeners.

Uses color to support concurrence – The student changes font colors to support the reiteration of the key words in both oral and written modes. As Kress and Van Leeuwen point out (2006, pp. 160–174), color modality must be drawn into any model of how multi-modal texts organize information to make meaning. The use of the strong color red draws the listeners’ attention to the key words the student is explaining and thus reinforces the overall message. Equally, the changing color modality within the slide (grey - “hitting the wall,” bold black - “a common phenomenon,” and red - “hitting the wall”) quickly reinforces the key words the listeners are expected to focus on.

Weakness of slide 1:

Has complex concurrence and complementation relationships - While the slide successfully uses concurrent relationships, it also attempts to include complementary relationships at the same time. The visual information in the pie chart is not supported by the oral text (except for the term “almost marathoners”). The pie chart is expected to have a complementary relationship with the main oral text. Moreover, the lack of clear spatial placement, wherein the pie chart is placed between the English and Japanese explanations of “hitting the wall,” may make the reading path unclear for the listener/reader. In contrast, separating the information into two panels and increasing the degree of concurrence used to explain the information in the pie chart may improve comprehension.

However, mixing multi-modal relationships of concurrence and complementation within one slide, which was what the student was trying to do, is very common in multi-modal texts. However, it takes a high degree of skill. This is an example of multi-modal complexity that is available to experienced multi-modal writers such as designers, comic book writers, and movie directors, but may not be apparent to non-experts. An example of texts that successfully mix relationships of concurrence and complementation is in the visual instructions that accompany the assembling of household objects (e.g., installing a personal computer) (Stenglin and Iedema 2001, pp. 199–201). However, the mixing of concurrence and complementation and the lack of clear spatial placement in the student’s slide may overload the slide with too much information.

3. Conclusions

This paper has shown how multi-modal relationships of concurrence and complementation can assist learning in a TESOL context. It has shown that these relationships enable teachers and students to talk about the potential strengths and weaknesses of student-created multi-modal texts. While this paper has only focused on one type of multi-modal text, namely, a digitally created classroom presentation, it is hoped that

the multi-modal definitions of concurrence and concordance can be applied to other classroom-based multi-modal texts.

Overall, this paper suggests that defining multi-modal text relations can make a positive contribution to how multi-modal texts are used in the new literacy environments of the modern TESOL classroom. While creating a comprehensive definition of graphic/written text relations may be a long-term challenge for educational researchers and practitioners, in the short term, existing research can be aligned to create useful multi-modal definitions that are applicable to teaching contexts.

Multi-modal text relations are far more complex than this study suggests. A comprehensive model of graphic/written text relations needs to include the effects of different and more complex graphic/written text relations (as described by Unsworth, 2008) than the two included in this study. Furthermore, how readers interpret images may change in different contexts. Therefore, more research is needed into the effects of complementary and concurrent relations on different proficiency levels, field dependent versus field independent learners, and learners from different cultural backgrounds. Studies suggest that how multi-modal relations are interpreted may also be dependent upon cultural factors. However, current linguistic pedagogical approaches successfully deal with these complexities in the classroom everyday. Therefore, if creating effective linguistic-based classroom approaches has been achieved, successful multi-modal pedagogical approaches can then be created in the future.

4. References

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