Developing Multimodal Literacy in the Business English Reading Class: A Case Study of Students’ Presentation PowerPoint Slides

Wenjin Qi
Yuncheng University, Yuncheng, China

Abstract—This study aims to investigate the students’ multimodal literacies by analyzing their presentation PPT slides in Business English reading class in two dimensions of discourse genre and multimodality. It discovers certain preferences and patterns in their multimodal semiotic practice as well as some drawbacks in the meaning-making process. Students tend to adopt visualizing genre over other genres to demonstrate factual events in their PPT presentations. They are inclined to use language and image more frequently than other semiotic modes in their PPT meaning making. Besides, their technology and media literacy needs to be strengthened in searching, criticizing, analyzing online information resources. Eventually it provides teachers with pedagogical scaffolds to teach the viewing and representing of multimodal texts effectively.

Index Terms—multimodal literacy, business English, presentation, genre, modality

I. INTRODUCTION

Fast-growing technologies and increasingly global society require a rethinking of the definition of being literate in the 21st century. Luke (2003) argues that literacy in this new era shifts from cognitive processing of paper-printed texts to parallel processing of multimodal text-image information. Literacy in this age means the ability to communicate effectively and multimodally, to be specific, to read and write multimodal and digital texts on the Internet and other forms of media. Jewitt (2009) labeled the “multimodal turn” as being a recognition that verbal signs coexist with other semiotic resources in conveying meanings. Language is regarded as a part of a complex and interconnecting unit of multimodal modes. Meanwhile, other forms of representation, such as visual, auditory, gestural and special modes, take up an emerging role in constructing meanings in particular contexts.

As such, students nowadays need to develop proficiencies not only in traditional ways, such as language literacy and cultural literacy, but also to improve their proficiency in media literacy, critical literacy, and information literacy (Lim & O’Halloran, 2012). In this regard, multiple literacies are becoming an urgent requirement in the educational curriculum. Naturally, multiliteracies teaching should also evolve from reading and writing in print to learning both in print and screen critically and creatively.

Multimodal literacy (van Leeuwen, 2017) concerns about students’ ability to understand multimodal texts in a critical way and to communicate and interact effectively and efficiently via the use of multimodal representations. It highlights the distinct function of each meaning-making resource. For instance, the written text represents sequential factual events in a better way, and visual images represent the relations of elements in space. Multimodal literacy talks about the comprehension of semiotic potentials and the limitations of various multimodal resources. It also includes the ways in which the modes function together in order to construct a coherent and cohesive multimodal text.

To view multimodal text critically, students should come to an understanding of how meanings are constructed via semiotic resources. The students must be able to support their interpretation and expression of the multimodal texts with solid citation and evidence. In multimodal communication, it is necessary for the students to be aware of the affordances and functions of multiple semiotic resources in the process of meaning-making. The significance of enhancing students’ multimodal literacy has been increasingly acknowledged and emphasized by curriculum planners and educational policy makers nationally and internationally. China, as an example, has introduced the concept and theory of multimodal literacy to all levels of schools, colleges, and universities, as well as informal educational institutes. The country aims to build competencies for teachers and students to teach and learn multimodal literacy. Expanding the theoretical perspectives of multiliteracies, teachers are able to bring to the exploration of students’ cognition and learning process. It will help teachers to support students’ literate development in the context of contemporary society. It inspires teachers to consider new opportunities for applying literacy pedagogy to the classroom so as to better prepare students for their future work and life in digitalized and multicultural societies.

This article investigates the students’ multimodal literacies by analyzing their presentation PPT slides in Business English reading class in two dimensions: discourse genre and multimodality. It discovers particular preferences and patterns in their multimodal semiotic practice and some drawbacks in the meaning-making process. Eventually, it provides teachers with pedagogical scaffolds to teach the viewing and representing of multimodal texts effectively.
II. LITERATURE REVIEW

Traditionally, the term “literacy” refers to a set of cognitive skills that people acquire to function in society. It covers primarily the ability to read and write to a specified degree of proficiency (Serafini, 2014). It stresses the ability and willingness to construct meaning through reading and writing from the printed text in a particular social context. It also suggests that there are different types of literacy associated with specific settings. Till 1994, the New London Group gathered together to discuss the state and future of literacy pedagogy and outline an agenda for a Pedagogy of Multiliteracies. It proposed that meaning-making is a form of design or operational dynamic transformation of the social world (New London Group, 1996). It addressed the growingly multimodal nature of textual forms, and the ways the complex texts integrate into mass media and sociocultural practices.

The concept “multimodal literacy” refers to the reconceptualization of literacy. It is a multi-dimensional series of competencies and social practices in response to the ever-increasing complexity and multimodal nature of texts in the modern era. The traditional norm of print-based texts is transforming into multimodal texts in digital environments. Correspondingly, the term “reading and writing literacy” is expanded to contain other elements, such as visual literacy, media literacy, critical literacy, computer literacy, and other different types of literacies. These literacies require people to navigate, interpret, design, and analyze texts in complexity. In summary, the term literacy has evolved from a cognitive perspective to a sociocultural-oriented one. Nowadays, being multiliterate requires one to make sense of the world and convey meanings via various modes of representation in certain social contexts for particular social purposes.

The New London Group (1996) posited five categories of design elements for developing a metalanguage for a multimodal text. Kress (2010) further asserted that multimodal design differs from independent modes since it links other modes in dynamic relationships. Williamson (2005) specified multiliteracy as the ability to acquire information from multiple media and modes. Gentle et al. (2006) classified it into five categories: linguistic, visual, audio, gestural, and spatial modes. Hu (2007) expanded it to nine levels from a social semiotic perspective. Multiliteracies have become a mainstream research area that has led to a growing body of research to address the dynamic potentials of multiple modes and intermodality in meaning-making. The multimodal literacy practices and the implications for education enable teachers to embrace its potentials for empowering student agency in reshaping semiotic resources aligned with the interests and needs of the sign producers (Kress, 2010).

Multiliteracies are embedded in various aspects of learning and teaching in the English language classroom. In multimodal writing practice, students’ multimodal compositions are evaluated by accuracy, fluency, and purpose (Unsworth, 2014). In multimodal reading practice, distinctive ways in text structure are analyzed, such as the reading of animated images (Chan & Unsworth, 2011), multimodal typography and the language-image interaction (Kress & van Leeuwen, 2020), and the bodily engagement in multimodal reading in digital contexts (Mills, 2016). A series of classroom studies on multiliteracies have explored the utilization of multimodal literacy in schools and universities, including the investigation of multimodality in students’ film making, indigenous multimodal pedagogy, and ESL classrooms (Jewitt, 2014).

While multimodal literacy research has covered a wide range of aspects of learning and teaching, there is particular discourse, such as presentation PPT discourse, that has received less attention. Furthermore, most studies focus on visual and linguistic modes of representation in PPT discourse. Few have touched upon other modes, such as auditory, gestural, and spatial modes. This may be partly explained by the fact that verbal and visual modes dominate other forms of communication and representation in presentation discourse. However, there is potential for a new paradigm of multimodal literacy with more comprehensive coverage in literacy learning. Therefore, this study finds it highly necessary and significant to fill in the gap by exploring the discourse genre and multimodality embedded in the use of multimodal semiotic resources in PPT slides designed by Business-English-major students. This study aims to answer the following two research questions:

1. What is the status quo of students’ multimodal literacy?
2. How is their multimodal literacy reflected via the utilization of multimodal resources?

By analyzing the PowerPoint slides designed by sophomore business English majors, it investigates the students’ multimodal literacies in two dimensions of discourse genre and multimodality. It aims to answer the above two questions by summarizing the preferences and patterns in students’ multimodal semiotic practice and some drawbacks in the meaning-making process.

III. METHODOLOGY

A. Subjects

This study conducts a qualitative analysis of the PPT slides designed by business English students in the reading class presentations. It collects and investigates a total of 200 slides on the theme of environmental issues and ecological protection in business practices, including such topics as “green traveling, ecological marketing, corporate social responsibility, and paperless office”. Students are divided into 11 groups and are required to deliver presentations on a set of ecological themes, such as soil erosion, a decrease in biodiversity, electronic waste, white pollution, ocean pollution, acid rain, deforestation, dissertation, and so on. Each theme should be elaborated in four sections. The first
section demonstrates the environmental issues. The second section lists possible causes of environmental problems. The following section provides ecological strategies to solve the regarding problems. And the final section requires the students to design an ecological poster to advocate their ecological values. Explicit instructions and requirements are provided for each group in presenting their collaborative work. Students are encouraged to take up multiple resources in a dynamic and informative way. Each presentation should contain no more than 15 slides and last no more than 10 minutes.

B. Instrument

Derived from Zhang’s (2022) framework, the study adopted a simplified framework to analyze presentation slides from two dimensions, namely, genre and modality (Figure 1).

![Figure 1. Analytical Framework](image)

Firstly, Hu (2007) proposed that there are four basic types of genre in presentation PPT discourse, namely prompting genre, visualizing genre, analyzing genre, and persuading genre. The prompting genre mainly adopts the mode of bullet-point to organize ideas, so that the speech is organized and the content is logically explicit in the form of highlighting key points. The visualizing genre mainly utilizes visual images for vivid and concrete descriptions of abstract concepts. The analyzing genre refers to the analysis carried out in graphical mode. Lastly, the persuading genre achieves persuasive effects by interacting with the audience through color, sound, and animation modes. All the four genres could convey meanings on complementary or non-complementary terms in specific contexts.

Secondly, the New London Group (1996) divided the modes associated with developing multiliteracies into five categories: linguistic mode, visual mode, auditory mode, body posture mode, and spatial mode. Each mode is composed of different modal components. The linguistic mode includes vocabulary, metaphor, transitivity, information structure, italic, font, bold, and so on. The visual mode includes color, perspective, foreground, and background, to name a few. The auditory mode includes music, sound, and rhythm. Body posture includes behavior, gesture, head movement, expression, gaze, and body movement. The spatial mode includes classroom layout, geographical location, architecture, and so on (Kress, 2010). Since our research subjects are PPT slides for students’ class presentations, the body posture and spatial mode seem irrelevant.

Moreover, Zhang (2022) points out that when one mode is insufficient in expressing the meaning to be communicated or completing the communicative task well, other modes need to take effect in assisting the task. Therefore, it is worth mentioning that the interplay among various semiotic resources plays an essential role in the meaning-making process. Hence, the intersemiotic function should be integrated into the multimodal framework.

In complementary relationships, it is necessary to distinguish between strengthened and unstrengthened relationships. A strengthened relationship is one in which one mode is the main form of communication while other different forms reinforce or complement the dominant one. The non-complementary relation refers to the fact that other modes do not contribute significantly to the embodiment of the meaning as the first mode, but still exist as a mode. In other words, it is possible that modes can form mutually exclusive and mutually compelling relationships. In such a context, semiotic modes often counteract each other in an unintentional way (Kress & van Leeuwen, 2006).

C. Procedure

This study conducts a detailed qualitative analysis of 200 selected PPT slides from a class presentations delivered by business-English-major students. The research aims to explore students’ multimodal literacy by investigating the presentation discourse from the perspectives of genres and multimodality.

First, it categorizes the data into four types of genre, that is, prompting genre, visualizing genre, analyzing genre, and persuading genre. The prompting genre is typical of having bullet points with either phases or short sentences. The visualizing genre contains images as its primary feature. It is the most direct and dynamic way of representation. The analyzing genre identifies itself with a chart or a graph. And the persuading genre achieves persuasive effects by the combination of multiple semiotic resources.

Secondly, it conducts a qualitative analysis by classifying the data into four types of modality, that is, linguistic mode, visual mode, auditory mode, and intersemiotic function. By comparing the frequency of individual attributes, it
reveals the multimodal patterns in students’ PPT practice and discloses the status quo of their multimodal literacy in the specific context.

Lastly, it discusses patterns and characteristics of the nature of students’ multimodal semiotic practices. It also summarizes the means by which students’ multiliteracies are reflected through the presentation of multimodal semiotic resources. It concludes by providing pedagogical suggestions for teachers to help students develop their multimodal literacies in the foreign language learning context.

IV. RESULTS AND DISCUSSION

A. Genres Distribution

The requirement for the task is to carry out internet research and collection of environmental issues, causes of environmental problems, and ecological strategies, as well as to design an ecologically educating poster for each group. The type of genre corresponding to each sub-task is listed, and the number of slides across four genres is shown in Table 1.

<table>
<thead>
<tr>
<th>literary tasks</th>
<th>genre</th>
<th>No. of slides</th>
</tr>
</thead>
<tbody>
<tr>
<td>environmental issues</td>
<td>visualizing</td>
<td>116</td>
</tr>
<tr>
<td>causes of environmental problems</td>
<td>analyzing</td>
<td>3</td>
</tr>
<tr>
<td>ecological strategies</td>
<td>prompting</td>
<td>20</td>
</tr>
<tr>
<td>ecological poster</td>
<td>persuading</td>
<td>16</td>
</tr>
</tbody>
</table>

Visualizing genre is regarded as the most often utilized in students’ presentation practice. In illustrating environmental issues, all of the students rely on images to put forth a specific aspect of environmental crises and to highlight the severity of the issue. In the process, images are identified to convey meanings in two ways: one is entirely visual (41 slides), and the other is through a combination of both visual and linguistic modes (75 slides). As in Figure 2, images of piled-up offices and paperless ones are provided in a contrastive way to reinforce the importance of plantations on our planet. As images convey more information than words, the visual genre is considered the most effective and informative thus is widely utilized in PPT discourse. Hence, a high percentage of slides belonging to the visualizing genre is identified across the data, most of which discuss about the environmental issues and crises.

Analyzing genre is typically discovered in the form of charts, figures and tables. It serves to clarify a particular phenomenon or reach a conclusion in comparison in a critical and objective manner. In identifying the causes of environmental problems, human activities are often claimed to be the primary source of pollution, particularly modern transport. In Figure 3, five types of transportation (steamship, train, airplane, automobile, and high-speed train) are analyzed systemically in six dimensions (comfort, price, safety, speed, convenience, and environmental protection) in a table. It provides a straightforward conclusion that the airplane is taken as the most environmentally unfriendly way of transportation despite their convenience and low time cost. This form of genre helps students to develop critical analyzing literacy by means of viewing and presenting a coherent and cohesive text.

Figure 2. Paperless Office

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Prompting genre refers to the form of bullet points with keywords, phrases, or short sentences. It aims to establish a clear, logical, and organized structure. In Figure 4, as one of the ecological strategies, a paperless office is advocated in business practice so as to reduce the use of papers and increase the coverage of forests and plantations. The contents are discussed in four aspects listed as bullet points (definition of paperless office, benefits and disadvantages, and environmental friendliness). In this way, it presents a description in an organized and effective manner.

The persuading genre reveals the clear intent of the designer through the combination of multimodal semiotic resources, such as color, animation, space, and so on. In Figure 5, the design of ecological posters aims to raise environmental awareness of the public to maintain business travel in a sustainable way. It could be noticed that a majority of students are inclined to adopt the persuading genre in their poster design for similar effects. In the theory of multimodal literacy, students are encouraged and guided to learn by design with multimodal semiotic resources so as to strengthen their overall multimodal literacy, including language literacy, digital literacy, art literacy, and cultural literacy.

B. Modal Utilization

One of the extensive pedagogical practices is theme teaching in university English education. Teachers assign PPT
presentation tasks themed on ecological education. In explicit instruction, students come to the understanding that all signs, including linguistic, visual, and auditory symbols, are semiotic resources that make meanings. And in the process of meaning-making, it is possible that an individual mode may rely on other semiotic modes to convey information effectively. In the specific context, three main semiotic modes (linguistic, visual and auditory modes) take effect in a context of meaning-making, it is possible that an individual mode may rely on other semiotic modes to convey information effectively. In the specific context, three main semiotic modes (linguistic, visual and auditory modes) take effect in a mutually-influencing relationship in the PPT discourse. It is illustrated in the following aspects.

Firstly, the linguistic text is the primary mode in the process of meaning-making. In the presentations, students tend to use long sentences to explain the causes of the environmental problems. They usually utilize short sentences or bullet points to put forth ecological strategies for the establishment of a harmonious human-nature relationship. In this way, it provides students with an opportunity to improve their linguistic literacy in an authentic context.

Secondly, visual images are the most prominent feature of PPT discourse, including static images and moving images. In particular, videos and animations deliver informative and impressive messages. For instance, environmental issues are demonstrated in the presentation with pictures or videos of pollution in various forms so as to attract the attention of the audience and arouse their ecological awareness in the regarding aspect. What’s more, when visual mode dominates the visualizing genre of PPT discourse, other modes, such as linguistic mode, forms a complementary relationship in highlighting the embedded meaning.

Thirdly, the auditory mode realizes conceptual and interpersonal metafunctions in multimodal design (Kress, 2012). In specific, an audio recording of whales calling for help was played at the beginning of the students’ group presentation before they explained that it was the whales’ “cry for help” from human beings to protect marine life and maintain ocean ecological balance. The consecutive sounds facilitate the fulfillment of conceptual metafunction by identifying the unique whale sound and interpersonal metafunction by emotionally connecting the audience with the endangered oceanic lives. Together with other modes, the auditory mode complements to the coherence of the theme.

Lastly, as the communicative meaning is not just a product of the individual modes that contribute to it but of the interplay between them (Hart & Queralto, 2021), therefore, the interplay of various semiotic modes in PPT discourse is regarded as a necessary part in the learning process of multimodal design. It is worth pointing out that different modes in a context could reinforce each other in the meaning-making process. Whereas, they could also be irrelevant or even contradictory to one another in revealing the message.

C. Findings and Discussion

Based on the analysis of the distribution of genres and modalities across the PPT discourse, it is found that specific patterns in students’ presentation practice could be identified. They could be concluded in the following two aspects:

Firstly, visualizing genre and linguistic and visual modes are utilized extensively, while analyzing genre and prompting genre are used significantly less. Among the 200 PPT slides, 186 slides contain visual images (the number of pictures ranging from one to five). And 25 images are selected randomly for the purpose of “being fun or cool” in spite of their irrelevance to the presentation themes. Moreover, 84 slides are discovered verbally burdened with original online texts about a specific topic. Few corrections or adjustments in multimodal design are noticed, such as the font, size, color, and typography of linguistic texts. They were mixed up in the PPT design and failed to demonstrate the meaning potential and construct discursive meanings. In this way, it causes confusion and misconception about environmental issues. Furthermore, in some cases, linguistic texts may not demonstrate semiotic convergence with visual images. As for the auditory mode, only one group of students adopted it in their presentation. Preferences in modes of representation vary based on culture and context. They also have specific cognitive, social and relational effects. Therefore, it is safe to say that students lack experience in constructing and conveying meanings concisely and briefly via the use of multimodal semiotic resources. Hence, it discloses a certain degree of deficiency in students’ mastery of multimodal literacy.

Secondly, limited sources of information narrowed students’ selection of online resources. In the case of white pollution, groups of the same thematic topic provided quite a number of identical or similar contents, including descriptive verbal texts on white pollution and visual images of plastic wastes dumped in rivers, mountains, and even oceans. Multiliteracies include information literacy and technical literacy in the era of the internet and technology. Faced with a large number of online information resources, students need to learn how to analyze, summarize, integrate, summarize and evaluate them. Consequently, there occurred overlaps in the ways students design and deliver their presentations. Therefore, it is evident that they still need professional guidance from the teachers in utilizing the internet and online channels to scaffold their multimodal learning. It requires students to strengthen the training of critical literacy of information analysis and learn to use multimodal semiotic resources effectively to construct the overall meaning.

The reasons for the above-mentioned characteristics of students’ PPT discourse should be traced from two aspects. On the one hand, there is still room for students to strengthen their familiarity with PPT software in the practice of presentation design. It should be understood that each mode accounts for a semiotic resource and is helpful in constructing meanings. Similarly, students should be guided and encouraged to express meanings through a combination of diverse semiotic resources. In short, their technology-enhanced multimodal literacy should be highlighted. On the other hand, information channels should be expanded for students to promote leaner agency in learning knowledge and solving problems. Extensive sources of information would enhance students’ multiliteracy.
V. CONCLUSION

Taking 200 business-English-major students’ PPT presentation slides as language data, this study analyzes current college students’ ability of multimodal literacy from the perspectives of discourse genre and modalities. It finds that students show certain tendencies and preferences in their presentation practice. They are inclined to adopt visualizing genre over other genres in describing factual events, and are less willing to use analyzing genre in listing the causes of environmental problems. It is noticed that the visual mode of representation is much richer and more evocative than the linguistic mode alone. Most students fail to pay attention to the role of audio, video, font, color, layout, and other modes in meaning construction. Besides, the use of the persuading genre is prominent in the design of ecological posters. In terms of the use of semiotic modes, it indicates that students prefer to use language and image frequently. In contrast, other modes, such as auditory mode, are less regularly utilized in their PPT meaning-making process. The interplay between multiple modes in a specific context is often neglected. Therefore, there occurs overlapping, confusing, and even contradictory expressions of meanings. This study also finds out that students need to develop their technology and information literacy in searching, collecting, criticizing, and analyzing online resources of information.

Correspondingly, it takes two sides of efforts to increase students’ multiliteracies. To begin with, teachers should reflect on the ways of integrating multiliteracies into the teaching practice. Their pedagogical PPT discourse should demonstrate as a model for students to learn from. Therefore, it requires teachers to improve their multiliteracies in producing meanings through multimodal semiotic modes, including linguistic mode, visual mode, auditory mode, and so on. Furthermore, it is also necessary for students to understand, comprehend and learn to identify the means of modes inter-playing with each other in the process of meaning construction. They must also equip themselves with information literacy in acquiring valid information from massive online resources to facilitate their language learning and professional skill improvement.

However, there still exist a few limitations to this study. First, the sample size is narrowed down to 200 slides designed by Business English majors. The coverage of the samples is not comprehensive enough to explain the multiliteracies of the whole batch of the current business English major students. A more extensive data would provide a more objective conclusion and produce a substantial understanding of the constituents of students’ multiliteracies. Secondly, the article primarily discusses students’ multiliteracies from the aspects of discourse genres, multimodal application, and the relationship between the modes students use. Yet, it does not dig into other aspects of multiliteracies which could be the area for further research. To be specific, it explores linguistic, visual, and auditory modes in the PPT discourse, while leaving out other modes, such as gestural mode, spatial mode, and so on. Naturally, future studies could continue the investigation for multi-dimensional analysis. It is suggested that future study could conduct quantitative research to provide relatively objective results and findings. Researchers could also expand the sample size and strengthen the credibility of research results. Finally, this study sheds light on interdisciplinary research, combining multiliteracies with other discourses, such as discourses of tourism, communication, public relations, and so on.

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Wenjin Qi is currently a lecturer at Yuncheng University (China). Her research interests include English language learning and teaching, and discourse analysis.