

Moving from the Logic of the Page to the Logic of the Screen: *A Review Research on Multimodal Pedagogy in EFL Classroom Contexts*

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Abstract—Due to the global proliferation of information technologies and communication channels, today’s students are increasingly engaged with multimodal, multimedia along with printed-based literacy practices and are significantly exposed to new information and mass communication on daily basis. As a result, there has been a significant increase in research publications on multimodal-based teaching practices and the impacts of such instructional practices on students’ learning. This study attempts to synthesize and critically analyze the existing empirical research on multimodal pedagogy in EFL classroom contexts. The descriptive statistics characterizing the studies reviewed (e.g., the research designs, participant characteristics, settings) were presented along with the qualitative content analysis results containing the emerging themes which sequentially arranged according to its prevalence. The research articles reviewed in this study were based on the following inclusive criteria: (1) peer-reviewed studies, (2) studies concerned with multimodal pedagogy in EFL contexts, and (3) published within the last 6 years. The search for these articles was conducted electronically using search engine databases (e.g., ERIC, Google Scholars) and some reputable journal websites (e.g., tanfonline.com, link.springer.com). Across the corpus of 40 studies, findings revealed that the most preferred study design for multimodal research was case studies conducted in school settings involving both teachers and students as participants. This analytical review also revealed five prevalent themes of findings informing the possibilities and complexities of pedagogical benefits and constraints of multimodal pedagogy. The results of this study could hopefully provide insights on what has been done thus far and showcase implications for research and practice.

Keywords: *analytical review, EFL contexts, instructional practices, multimodal pedagogy, technology*

I. INTRODUCTION

Industrial Revolution 4.0, also known as the intelligent industry, is now becoming a new buzzword in today’s digital world of the 21st-century era. This term was introduced by Klaus Schwab in the annual meeting of the World Economic Forum (WEF) in Davos, Switzerland, 2016. The result of this meeting was an agreement among business and government leaders on the hypothesis that the new transformation of digital

technologies has radically changed the way people live, perform business and interact with one another. Modern technological advancements like sensors, cyber-physical systems, the Internet of Things (IoT), smart networks, and automation of machines characterized the so-called Fourth Industrial Revolution pervasively permeate the whole aspects of modern society lives. In the first industrial revolution, water and steam power were dominantly used to mechanize production and equipment. During the second, electric power was used to achieve mass production and division of labor. During the third, electronic and information technology was used to automate production, paving the way for greater economies of scale (Schwab, 2017). Thus, the industrial revolution has undoubtedly brought day-to-day social life and lifestyles become easier than it was before.

Today’s technological advancement has also brought some possibilities as well as complexities in the educational context. The crashing pace of progress in this disruptive era demands for graduates who are highly skilled. Accordingly, these conditions have challenged teachers and other education practitioners to provide help for students to develop skills and competencies that will enable them to function successfully in the society and future careers. As a consequence, it is indispensable that today’s education should bring new dimensions ensuring that it is relevant to the current demands and learners’ characteristics. Education should also become a gateway to avenues that enable each individual to have knowledge and skills in handling, managing and transforming information and knowledge represented by the technological resource (Ganapathy, 2014). In addition, learners should be taught to have the skills to relate that knowledge and skills in a variety of social contexts (Anstey & Bull, 2018; Cope & Kalantzis, 2009).

In the context of literacy education, the rapid and global proliferation of technologies and communication channels (e.g. text messaging, social networking, blogging) has also transformed learners’ literacy practices. Today’s learners, labeled as “Millennials” or “Digital Natives” (Prensky, 2001) are increasingly engaged with multimodal (Kress, 2003), multimedia practices along with printed-based literacy practices and are dramatically exposed to new information and

mass communication on daily basis. Research suggests that these literacy practices are leading to a paradigm shift in the forms of representation, moving from the logic of the page to the logic of the screen (Kress, 2003). The shifts of such practices have prompted a reconsideration of contemporary literacy pedagogy in which this new pedagogical approach strived to fuse together traditional (print-focused notions of literacy) and modern (multimodal) aspects of literacy and redefine the nature of learning, and teacher and student roles in the classroom (Cope & Kalantzis, 2000).

As regards English language teaching, literacy education for English language learners has traditionally focused on a concept of language proficiency that encompasses linguistic knowledge and skills for comprehension and communication (e.g. phonics, vocabulary, grammar, reading, writing, listening, and speaking). This form of literacy instruction is based on a conventional notion of literacy that is confined to a set of decoding and encoding skills (Hung, Chiu, & Yeh, 2012). Due to the rise of digital technology, this traditional literacy education needs to be re-conceptualized. The focus of teaching and learning needs to be expanded to include the use of multimodal resources rather than being limited to printed-based texts. As postulated by Shoffner, de Oliveira, and Angus (2010) that today's English classroom requires an extended understanding and enactment of literacy. Rather than an all-inclusive single literacy, English teachers must accept the changing nature and flexible nature of literacies that address areas as diverse as technology, multimedia, relationships, and culture. These areas, in turn, require the English classroom to be space capable of addressing the increasing multiplicity and integration of different modes of meaning-making where the textual relates to the visual, the audio, the spatial, and multimodal. In addition, (Siegel, 2012) have suggested the inclusion of multimodality in the classroom for two reasons: students live in the era that demands new literacies, and they often bring multimodal practices to school.

As a result of these views, there has been an increased number of researchers examining the integration of multimodality through multimodal pedagogy in the EFL context. Over the past decade, multimodality as a concept has been gradually introduced into curricula in several countries, most notably in Australia (Walsh, 2010), and importantly, in the mother tongue or first language subject. Multimodal pedagogy in this study refers to curriculum, pedagogy and assessment practices that focus on mode as a defining feature of communication in learning environments (Stein, 2008). The two prominent frameworks on multimodal pedagogy are multiliteracies (Cope & Kalantzis, 2000; New London Group, 1996) and multimodality (Kress, 2003; Kress & van Leeuwen, 2001).

Much of the research on multimodal pedagogy used the multiliteracies framework (Cope & Kalantzis, 2000; New London Group, 1996) as the guideline thus far. Multiliteracies was the term coined by a group of literacy researchers and educators, known as the New London Group when they held a meeting at New London, New Hampshire. The members of New London Group highlighted the concept of multiliteracies to address two related arguments: namely, the multiplicity of new communication channels and media utilized within

contemporary culture and the increasing salience cultural and linguistic diversity of learners (Cope & Kalantzis, 2000, 2015). The group highlighted that literacy pedagogy should move beyond a project that was "restricted to formalized, monolingual, monocultural, and rule-governed forms of language" (New London Group, 1996, p. 61). The literacy practices should give prominence to the incorporation of the cultural and social implications of literacy where "language and other modes of meaning are dynamics representational resources constantly being remade by their users as they work to achieve their various cultural purposes" (p. 64).

Multiliteracies pedagogy was developed and organized into two sections: the content of literacy pedagogy and the form of literacy pedagogy. The content of literacy pedagogy also known as the "what" of multiliteracy pedagogy, draws from multiple modes of meaning-making to support a design process of literacy learning. The form of literacy pedagogy, also referred to as the "how", draws from a range of relationships between four components: situated practice, overt instruction, critical framing, and transformed practice. Situated practice suggests the "immersion in meaningful practices within a community of learners who are capable of playing multiple and different roles based on their background and experiences (NLG, 1996, p. 85). Overt instruction includes all the activities that the teacher and other education professionals that scaffold learning activities, that focus the learners on the important features of their experiences and activities within the community of learners, and that allow the learner to gain explicit information at times when it can most usefully organize and guide practice, building on and recruiting what the learner already knows and has accomplished (NLG, 1996). Critical framing involves the engagement of learners in activities in which they break down the layers within a text and analyze the parts in reference to form, multimodality, language, discourse and/or function. The transformed practice is the stage in which learners will take the skills, knowledge, and behaviors that they have learned through the components of situated practice, overt instruction, and critical framing and apply these to their lives outside of the school in real-world contexts (Mills, 2006; New London Group, 1996).

The second theoretical framework adhered to multimodal pedagogy is multimodality. Multimodality is rooted in social semiotics theory, and based on the assumption that various modes are integral in meaning-making. The concept of multimodality begins with the understanding that language is but one of the communicative resources through which meaning is (re)made, distributed, and interpreted (Jewitt, 2008; see also Kress & van Leeuwen, 2001). Thus, a key tenet of theories of multimodality is that all communication is multimodal, and any communicative event entails simultaneous use of multiple modes which may realize meanings that complement, extend, and/or contradict each other. An important concept in the theory of multimodality is the idea that different modes have different affordances for meaning-making. Kress (2000), for whom even language is a multimodal semiotic system, emphasizes that the issue of multimodality can be thought about in at least three distinct and related ways: First, all texts are multimodal. It is very arguable that no text can exist in a single-mode, although one modality

can dominate. Second, there are texts and objects (of a semiotic kind) which exist predominantly in a mode or modes other than the (multi) mode of language. And third, there are systems of communication and representation which are acknowledged in the culture to be multimodal; all such systems are multimodal. (Kress, 2000).

II. METHOD

In order to understand the current landscape of multimodal pedagogy, this analytical review synthesizes and critically interprets the empirical research on multimodal pedagogy in the EFL context over the past 6 years. This review offers a comprehensive look at what has been investigated so far and suggests implications for research. This study follows Clark and Cresswell's (2010) definition of literature review study referring as "a written synthesis of journal articles, books, and other documents that summarizes and critiques the past and current state of information about a topic, organizes the literature into subtopics, and documents the background for a study." A systematic search for research articles was conducted in two steps: determining the inclusive criteria of the reviewed studies and conducting literature search and analysis. Focusing specifically on research examining multimodal pedagogy, the following inclusive criteria were applied: (1) peer-reviewed studies, (2) studies concerned with multimodal/multiliteracies pedagogy in EFL contexts, and (3) studies published within the last 6 years. As regards to the literature search process, this study used three strategies. First, an electronic search was conducted in the following databases: Google Scholar, Proquest and Eric (Educational Research Informational Center) and journal publisher websites (e.g., tandfonline.com, link.springer.com). Keywords used in database and journal searches included general terms i.e. multimodal pedagogy, multiliteracies pedagogy, multimodal in EFL teaching. Second, manual review on peer-reviewed multimodal pedagogy, multiliteracies pedagogy, literacy in EFL teaching journals. The articles reviewed were among others taken from TESOL Journal, Journals of Literacy Research, Journal of Learning, Media, and Technology, Journal of Pedagogies, An International Journal of Educational Technology and Applied Linguistics, Journal of Functional Linguistics, Journal of Research and Practice in Technology Enhanced Learning, Malaysian Journal of Learning and Instruction, and Journal of Advances in Language and Literacy Studies. Third, reference lists of collected studies on multimodal pedagogy research were mined for other compatible studies. This study was aimed to identify patterns and themes in the literature on multimodal pedagogy. To this end, each research article was read through noting the research foci, theoretical frameworks, research designs, participants, and contexts of the research. Next, key findings were identified to generate the emerged themes and patterns. In the final step, all reviewed papers were coded for each theme.

III. FINDINGS AND DISCUSSION

A. Characteristics of Research on Multimodal Pedagogy

A total of 40 research articles published within the last 6 years were thoroughly reviewed starting from 2014 to 2019. As

can be seen in Table I, studies on multimodal pedagogy were mostly conducted in 2015 (27,5%). The second most conducted research was in 2016 (25%). The majority (60%) of the empirical studies were presented as case studies, focusing on the implementation of multimodal pedagogy in EFL classroom contexts. The second most prevalent type of multimodal study was an exploratory survey (12,5%), followed by quasi-experimental (10%). The rest of the preferred types of research design on multimodal pedagogy studies was a descriptive study (3%), mixed methods (5%) and participatory action research (5%). Most (72,5%) of the studies reviewed involved students as the participants of the research, with a few studies focused on the teachers (37,5%). Studies on multimodal pedagogy dominantly took place in school (90%) rather than in online learning environments (10%).

TABLE I. SUMMARY OF RESEARCH STUDIES ON MULTIMODAL PEDAGOGY (N=40)

Characteristics	N	%
Publication Year		
2014	4	10
2015	11	27,5
2016	10	25
2017	4	10
2018	7	17,5
2019	4	10
Research Design		
Qualitative		
Case Study	24	60
Descriptive	3	7,5
Quantitative		
Exploratory Survey	5	12,5
Mixed Methods	2	5
Quasi-Experimental	4	10
Participatory Action Research	2	5
Participants		
Students	29	72,5
Teachers	15	37,5
Context		
In School	36	90
Online Learning	4	10

B. The Emerging Themes of Multimodal Pedagogy Studies

In the following section, themes of findings across the 40 studies on multimodal pedagogy were discussed and synthesized. These themes were presented based on the order of prevalence, with the most pervasive findings discussed first.

Theme One: Multimodal Pedagogy was Motivating and Engaging

The most significant theme emerged throughout the research review on multimodal pedagogy practices was a reported increased motivation and high level of engagement. Most (30%) of the studies reviewed depicted how multimodal learning potentially enhanced the students' motivation and confidence after they had been discouraged by the conventional language learning instruction (Ganapathy, 2016; Jiang & Luk, 2016; H. Lee, 2014; Loerts & Heydon, 2016; Ryu & Boggs, 2016; Varaporn, 2019) and how the students were highly engaged during the multimodal learning practices (Ganapathy, 2015, 2016; Pishol & Kaur, 2015; Puteh-behak, Massari, & Harun, 2015; Yi & Choi, 2015). The observed increased level

of motivation can be seen, for example, from the study conducted by Ganapathy (2016) describing how multimodal approaches of literacy learning in ESL context in a private school in Malaysia promoted positive learning outcomes among students including students' autonomy in learning, motivation to learn, accommodating students' various learning styles.

Theme Two: Multimodal Pedagogy Improved English Language and Multimodal Literacy Skills

Research on multimodal pedagogy revealed that the implementation of this pedagogy could help English language learners develop their language and multimodal literacy skills (Cocetta, 2018; Dzekoe, 2017; Ganapathy, 2015; Hafner, 2014; Kaminski, 2019; Kumagai, Kanoeda, & Nishimata, 2016; K. Lee, Ardehshiri, & Cummins, 2016; Lim, 2018; Millaray, Cárcamo, Heraldo, & Larenas, 2016; Mulatsih, 2016; Ruan, 2015; Souzandehfar, Saadat, & Sahragard, 2014; Yi & Choi, 2015). As one of the few empirical studies, Lee, Ardehshiri and Cummin (2016) investigated the implementation of multiliteracies pedagogy in a Computer-Assisted Multiliteracies Programme (CAMP) setting in an English communication course in a Korean public middle school during the summer session. Taking a design research approach, this study tried to find out how multiliteracies pedagogy could be effectively integrated into EFL instruction. The results revealed that multiliteracy pedagogy can be used as an alternative pedagogical approach to EFL education to effectively enable students to improve their English communicative competence as well as cultural and media literacies. Another interesting study was conducted by Kaminski (2019) exploring how the eight-to ten-year-old learners in their primary EFL classrooms responded to different exposures of modes, i.e. movement, sound, image, and speech, by repeatedly joining in with accompanying actions and sound effects, and by imitating language unprompted. This study suggests that multimodal texts create opportunities for language development in the primary EFL classroom, offer different access points for comprehension, invite participation, and motivate repeated practice.

Theme Three: Multimodal Pedagogy Improved Critical Literacy and Critical Thinking Skills

As the world told becomes the world shown, it has become increasingly commonplace for people to receive information from "highly constructed visual images, complex sound arrangements, and multiple media formats (Kress, 2003). Thus, developing critical thinking capacity to navigate, design, interpret and analyze texts is becoming more crucial. The process of designing multimodal texts in the multiliteracies pedagogy should allow students to "critically analyze and interpret the social and cultural context and the political, ideological, and value-centered purposes of texts" (Mills, 2006, p.1). Research suggests that the implementation of multimodal pedagogy helps learners develop their critical literacy and critical thinking skills (Huang, 2017; Lirola, 2016; Souzandehfar et al., 2014; Varaporn, 2019). Huang's (2017) study presents evidence that supports this claim. Taking a qualitative research design in her study, this paper examined language learners' critical multimodal literacy practices with a

moving-image text and specifically exploring on text comprehension and interpretation rather than text production. The use of images, sounds and words were pervasive in this study to represent the five modes of visual, aural linguistics, gestural, and spatial in emphasizing the multimodal. Adopting Serafini's (2010) concentric perceptual, structural and ideological perspectives as the core framework of critical multimodal literacy, the results of the study showed that focusing on images, sounds, words, and their purposeful organization enabled the students to critically examine a moving-image text through considerations for the multiple modes and arriving at the structural and ideological interpretive perspectives. Likewise, the study conducted by Lirola (2016) highlights the effectiveness of implementing the multimodal approach in teaching English was useful for developing critical thinking, for bringing cultural aspects into the classroom and for working on social competences. Drawing the principles of visual grammar (Kress & van Leeuwen, 2006) as its framework of analysis, this study highlighted the use of multimodal materials (texts, videos, etc.) on social topics to introduce cultural aspects in a language subject and to deepen into the different social competences university students can acquire when they work with them.

Theme Four: Multimodal Pedagogy Improved Learners' Autonomy and Creativity

Developing an autonomous learner has a significant role in the theory and practice of language teaching as learner autonomy has been acknowledged to be one of determining factors in the success of language learning. Research indicated that the use of a multimodal approach in English language teaching was powerful in developing learner autonomy and creativity (Freyn, 2017; Ganapathy, 2016; Lirola, 2018; Varaporn, 2019). Taking a multimodal approach in the teaching practice, Freyn (2017) investigated the extent to which the attitudes of Ecuadorean university students changed towards the teaching program implemented. The results revealed that the multimodal approach helped students to be creative and critical in learning.

Theme Five: Multimodal Pedagogy was challenging for teachers

A growing body of English language researchers has paid great attention to the English language teachers' use of technologies and multimodal resources to support English language learners. Despite the potential benefits of multimodal approach in English teaching, research showed that teachers also raised concerns about its implementation particularly in relation to their relatively limited knowledge of multimodal pedagogical practices, their limited knowledge of multimodal assessment, and time constraints in teaching preparation, support facilities from the school administration (Choi & Yi, 2016; Loerts & Belcher, 2015; Puteh-Behak, Darmi, & Mohamed, 2015; Yi & Choi, 2015). The study conducted by Yi and Choi (2015), for example, had uncovered teachers' concerns on the multimodal practices in their classrooms. The challenges that the teacher faced was related to time constraint in the materials preparation, rigid curriculum and standardized testing that only privilege the print-based linguistic mode, and the assessment aspects. In a similar way, the teachers in Loerts

and Belcher's (2015) study expressed similar concerns. This study revealed that the assessment of multimodal texts was something that the teachers mentioned as being nebulous. A general consensus among the teachers pointed to the fact that it was difficult to know what and how to assess from a multiliteracies perspective – most notably because of their interpretation of what multiliteracies pedagogies entailed.

IV. CONCLUSION

The purpose of this analytical review was to synthesize empirical research focusing on multimodal pedagogy practices in EFL contexts in order to find out the current landscape and to point towards new directions in research. The research articles for this study were selected inclusively based on certain criteria. A total of 40 empirical studies were closely examined to identify the patterns and themes by way of noting research foci, theoretical frameworks, participant characteristics, research design, and contexts. Across the corpus of 40 studies, findings revealed that most empirical studies were presented as case studies taking place in school settings in which students were dominantly targeted as participants. Research on multimodal pedagogy also revealed five prevalent themes of findings informing learning opportunities for pedagogical benefits and constraints. The results suggest the implementation of this pedagogy in EFL classrooms since several potential impacts on students' learning have been empirically revealed. However, more research should be conducted on multimodal pedagogy particularly related to assessing multimodal artifacts and examining teachers' content knowledge of multimodality.

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