



KAPITEL 5 / CHAPTER 5⁵
**MULTIMODAL COMPOSITION AS POTENTIAL SUBSTITUTION OF
CONVENTIONAL WRITING TASKS FOR ESP STUDENTS**

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5.1. Transformation of writing tasks in digital reality

The compositional practices of students have undergone numerous shifts- from the page to the screen and from the text to multimodal. Hardly could stay unnoticed the fact that traditional educational process is being changed. There are multiple reasons for that, namely the influence of the transformations of modern society, the rapid development of information technology, the modification of the usual reality and the format of relationships between people. Considering the technology rise and, multimodal environment, and fast –paced personal lives of most students, it is not a surprise that many find school to be obsolete and uninterested. Many students have extensive experience in multimodal composing outside the classroom while engaging in a variety of modes including image, sound, movement, text, and gesture (Cary Bazalgette, David Buckingham, 2013; Jewitt, 2014).

Majority of students out of school time devote hours to creating multimodality rich products that are shared with a global audience. John Dewey in *Experience and Education* first published even back in 1938 envisioned education as an enterprise involving teachers and students in mutually intellectually satisfying relationships. In other words, a student experience outside the formal education setting should play a significant role in defining the purpose of the educational enrichment. Thus, educators in the effort to catch up with the modern challenges started to incorporate multimodal literacies into the curriculum for a variety of reasons: to make schooling relevant, improve equality, prepare students to be critical and global citizens, and meet the needs of modern students. In progressively technological world, students need to be

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37 sheets, 73478 printed signs, 1,84 author's sheets*



sophisticated and trained not only in reading deploying multiple modalities, but also in composing in multiple modalities, if they want to keep up and stay afloat. Thus, multimodal assignments have started leading the way in higher education.

Another significant argument in favor of multimodal task is online form of education as a legacy of Covid time and cannot be overlooked the colossal influence of the War in Ukraine as we are revealing the sphere of higher education. Unfortunately, most of Ukrainian students have been learning online for the last 5 years. Higher education needs profound transformation especially in acquiring language skill, namely writing. When the online (or distance) education was introduced in 2019, most teachers were forced to transform the way they teach, using digital technologies, different software applications and experiment with new methods. The same level of frustration could be applied for students. Many researchers conducted on revealing the effectiveness of online education, had shown that among positive aspects students point out economical, practical, transportation aspects. However, the fact of being late for classes, lack of necessity to take notes had been attributed to the positive attitude to online education. This, in the aspect of mastering the writing skills, had profound negative consequence along with disconnection with their social environment. The former greatly impacted on motivation that leads to loneliness and burnout. All mentioned, unfortunately, play pivotal role as the driving force in studying process. In a world where communications between individuals is predominantly digital, conventional writing assignment are becoming inadequate as it employs only one semiotic channel (alphabetic) to convey the meaning. Apart from being only one semiotic channel, it could be totally copy pasted by virtue of Artificial intelligence, namely ChatGPT. There are other pitfalls in usage ChatGPT in writing assignments, particularly dependence on AI. In terms of acquiring writing skills, if student strongly rely on AI, it leads to lack of critical thinking. If students introduce AI model like ChatGPT to complete writing tasks that may hinder students from developing their own writing skills. It is essential for students to practice and improve their abilities to



articulate ideas, structure arguments, and enhance their critical thinking, which may not be fully developed through AI assistance alone. Critical thinking is of utmost importance in digital world as only critical thinkers excel at research and finding the most relevant pieces of information that make them well-informed on any given topic. This is helpful in workplace discussions and when positioning yourself as a thought-leader in your industry (Bezemer & Kress, 2015).

The second crucial aspect is potential for plagiarism. Students may be tempted to copy or directly use the content generated by ChatGPT without proper attribution or understanding. It is extremely widespread among the students who get their degree in Science. Plagiarism is a serious academic offense and can have severe consequences. It is essential for students to develop their own work and practice academic integrity.

Academic integrity is a fundamental principle that holds paramount importance in the academic world, especially for students in technical universities. Upholding academic integrity entails a commitment to honesty, fairness, and ethical behavior in all aspects of one's academic pursuits. In the context of technical education, where innovation and problem-solving are key, maintaining academic integrity is crucial to the development of a student's skills and knowledge. Plagiarism, cheating, and other forms of academic dishonesty not only undermine the credibility of one's work but also erode the foundation of trust within the academic community. Students in technical universities must strive to uphold the highest standards of academic integrity, not only to demonstrate their own integrity but also to contribute to the integrity and reputation of their institution. By adhering to principles of honesty, originality, and ethical conduct, students can truly excel in their academic endeavors and contribute meaningfully to the advancement of knowledge in their field.

The third aspect which is worth mentioning is inability to understand personal goals and learning objectives. Personalized learning and tailored instruction are crucial for students' academic growth. AI models may not fully understand the individual needs, goals, or learning styles of students, which can lead to failing the writing task



completely. Teaching in heterogeneous classes gives a clear view of the students' abilities and expertise, so while checking the assignment of the low-level student you would not expect to see high level writing.

However, the contemporary communication landscape is not limited to only linguistic features; rather, it is expanding its boundaries to include the use of multiple modes for communication beyond written language (Yi, Shin, & Cimasko, 2020). Furthermore, as modern societies become culturally and linguistically diverse, literacy as a social practice is considered 'one that is situated in a specific time and place and one that questions whose literacies are valued or marginalized' (Jones & Hafner, 2012). As a result, the demands of incorporating various cultural and social aspects into language and literacy education have increased (Provenzo et al., 2011). From such a multiliteracy perspective of writing education, multimodal composing has received a good deal of attention in the field of language and literacy studies. Multimodal writing refers to composing digital texts that involve 'the fluid interweaving of visuals, sounds, movement, and text to create synergistic messages,' and examples of multimodal composing in real life include posters, slide shows, blogs, videos, and podcasts (Smith, 2017).

Multimodal task is the only solution both for students to make their learning engaging and fascinating, and teachers to ignite students' creativity and motivation.

5.2. Analysis of recent researches and publications

Traditionally, one of the primary goals of language and ESP courses has been to enhance students' ability to read and write on paper. In the digital era, on the other hand, what it means to be literate goes beyond mastering decoding and encoding skills. Students are required to 'interpret, design, and evaluate multimodal texts' in a world where 'multimodal composing is not an option anymore' (Yi et al., 2022). Thus, an



increasing number of teachers and researchers are becoming interested in multimodal composing, a new form of representation, which includes various modes of expression beyond traditional monomodal writing (Hafner & Ho, 2020).

Youngjoo Yi defines multimodal composing as “designing multiple semiotic resources, including both language and other mode”. There another definition as “semiotic process that produce texts by combining multiple modes, which include but not limited to words, image, and soundtrack” (Jiang, 2017). Whereas, Lim and Polio define it as “composition that involves multiple linguistic and/or nonlinguistic modes.

The most common and popular theoretical approaches to multimodality are social semiotic approach (Jewitt, 2009; Kress, 2010), multiliteracies approach (The New London Group, 1996), and systematic functional grammar framework (O’Halloran, 2008)

The majority of scholars assume that multimodality framework is rooted in social semiotics theory (Jewitt, 2009; Kress, 2010), and is also based on the assumption that various modes are integral in meaning making. Within these frameworks, language is no longer privileged in meaning-making but a starting point for analysis (Jewitt, 2009). According to this framework, multimodality is defined as the “use of several semiotics modes in the design of the semiotic product or event” (Kress, 2010). Modes are socially shaped and culturally given resources for making meaning included but not limited to print, speech, animation, sound, gaze, and gesture (Kress, 2010). The notion of mode is needed a deeper understanding as it determines the basics of the presented research. Thus, mode in social aspect as it recognized by Kress, the founder of the discipline known as multimodality studies “is a matter for a community and its social-representational needs. What a community decides to regard and use as mode is mode. ... Formally, what counts as mode is a matter of what a social-semiotic theory of mode requires a mode to be and to do” (Bezemer & Kress, 2015).

Multimodality, or “representations in many modes” can be viewed first of all as a phenomenon of human communication in which multiple simiotic resources, or



modes, are combined and orchestrated to represent and make meaning in text and communicative events (Lemke,2002). A critical shared assumption and the field of multimodal studies is that multimodality is the” normal state of human communication” (Kress, 2010), and thus” all communication is multimodal” (Lemke, 2002). A print- based or digital text that utilizes more than one mood or semiotic resources to represent meaning potentials is referred to as a multimodal text or multimodal ensemble multimodality can also be seen as an umbrella term that “maps a domain of inquiry” (Kress, 2019, p54) in educational research. According to Kress, however, the term “multimodality” is often misused as if it were a theory- it is not. Scholars of multimodal studies come from various professions and disciplines; they approach the phenomenon of multimodality through different theoretical perspectives, and develop different “theories analytical tools and descriptions that approach the study of representation and communication considering modes as an organizing principle”. The most common and popular theoretical approaches to multimodality are multiliteracies approach (The New London Group, 1996), and social semiotic approach (Jewitt, 2009; Kress,2010), and systematic functional grammar framework (O’Halloran, 2008)

Actually, it could be considered as practical solution that makes “mode” applicable to any dimension of mediated meaning-making. But two central the most ubiquitous modes deserve our time and interest in this monograph are images and text.

Next approach to understanding of multimodality is implemented by the New London Group. According to this study, five modes are: linguistic/alphabetic — written and spoken words, visual — images (moving or still), aural — sound, music, gestural — movement, expression, body language, spatial — position, physical arrangement, proximity

Prompted by the challeges of digital era multiliteracies framework was proposed by the New London Group in 2000 as an influential and useful way to connect conceptions of different pedagogies taking to account new social realities including



technological developments (Cope & Kalantzis, 2009). 'Multi' refers to two key dimensions: the multiple ways of being in a diverse, changing world; and the multiple methods of representation made possible with globalisation. Four components of multiliteracies pedagogy are the following:

- situated practice, draws on the experience of meaning-making in everyday life, the public realm and workplaces
- overt instruction, through which pupils develop an explicit metalanguage of design
- critical framing, interprets the social context and purpose of designs of meaning
- transformed practice, in which pupils, as meaning-makers, become designers of social futures.

Multimodality theory in education particularly in linguistics implies implementation of different modes to create multilayered ensemble so called various points of entry into a text, to communicate meaning beyond the written world alone. Generally speaking, a multimodal perspective approaches representation, communication and interaction as more than language and treats the choice of mode as significant. Multimodality in Writing examines writing as a part of a multimodal representational and communication landscape, explores how writing interacts with other modes and looks at the way in which writing is embedded within a wider semiotic frame in a social context. These considerations are significant in today's global society which has "new requirements

and access to information and knowledge; reconfiguration, changing roles, and possibilities for people's identity formation; and connection across local/national and global/international boundaries" (Jewitt, 2016)

While concerned centrally with knowledge processes, "effective pedagogy carefully calibrates the distance between the learner's known life world and the transformational possibilities of the to-be-known" (Cope & Kalantzis, 2009). In this



view, pedagogy embraces elements of the design of education, including the relating of experiences of formal learning and those removed in time and space – including the world outside the school and the projected futures of the children. There is therefore a strong connection with the broad and rich conceptualisations of digital literacies discussed above. (Pedagogic practices and digital literacies in these senses are both strongly conceptualised through a social constructivist paradigm - pedagogies and digital literacies intertwined through social practices and interactions.) Taking the four components, the first emphasis on ‘situated practice’ reinforces the notion that learning is always connected to specific domains of activity – the settings, participants, discourses and dynamics of participation. (Lave & Wenger, 1991). Learners themselves may make connections between experiences even if the borders between domains seem to be highly demarcated, as, for example with home and school; and, indeed, it can be fruitful to pay attention to such motivational bridges (Dewey, 1986).

From the instructional design, combining verbal and non-verbal representations of knowledge using mixed modality is the most effective (Norris & Maier, 2014). This mixed-modality (i.e., multimodal learning environment) involves students’ multiple senses when interacting with the material and peers to immerse in the learning experience fully. The multimodal characteristics of the classroom are central to how students learn. These characteristics include talk, visual communication, action, gesture, gaze, posture, and movement, all contributing to teaching and learning (Jewitt, 2003). Norris and Mayer (2014) applied the cognitive-affective theory of learning to design a multimodal learning environment where the occurrence of learning depends on the learner’s actions. They identified the following five practical instructional design principles to promote interactive learning: guided activity, reflection, feedback, students controlling the pace of presentation, and receiving focused pretraining providing relevant prior knowledge. Multimodal learning encourages dialoguing, controlling, manipulating, searching, and navigating in technology-mediated environments for knowledge construction rather than mere information acquisition



(Norris & Maier, 2014).

In this scientific monograph, for clarifying notions and narrowing the field of research, multimodal composing is defined as multiple semiotic resources by combining different modes.

5.3. Introducing of multimodal composing into practice. Principal concerns.

Evidently, there is always a risk and a fear to implement new approaches into teaching process and thoughtful teachers who are seriously considering whether or not they should expand the range of the modalities that characterized their composition assignments do face some realistic concerns as well as many new possibilities. Many scholars remain hesitant, skeptical and even resistant to the idea of integrating multimodal composing into L2 classes.

The first concern is whether multimodal composition can really be considered as composition or can be simple distraction from language development.

The classical basis of composition instruction involves teaching students how to use all available rhetorical means of communicating effectively. For oral cultures this important phrase means focusing on convincing oral presentation. For example Aristotle and later rhetoricians, provided writing as additional means of persuasive communication. For authors after Gutenberg print text and images were among the resources that could be put to rhetorical use. At each of this particular points of History people have expressed sincere concerns about new technologies of communication and there effects on more conventional forms of literacy.

So why a multimodal composition is such a burning issue right now especially if authors have had long experience of using multiple modalities (words, sounds, visual images) to make meaning, and if media technologies have reinforced such presentation long before the invention of computers and digital environments? One explanation lies



in merging of digital production technologies. The great variety of multimodal applications (photo manipulation, audio editing, video editing, digital recorders etc.) makes it possible for students to create multimodal text.

The majority of organization, institution, and individual teachers acknowledge the realities of changing communication practices in which people in business, science and research context, personal correspondence, community, work and increasingly exchanging information in online environments and using a variety of semiotic resources and systems to make meaning enriching it with modalities. The Initiatives for changing educational approaches (back in 1996 National Council for teachers of English has adopted a resolution entitled “On viewing and visually representing as Forms of Literacy”) has admitted that composition instruction must be changed if it is to remain relevant and achieve the goal of preparing effective and literate citizens for the digital century.

The second concern. Is multimodal writing appropriate task for ESP students? Should teachers equip their students with extra knowledge on video design and audio production and do they have the expertise to teach multimodal composition?

It is not a surprise that in a modern world most of the communication is conducted predominantly via multimodal texts, namely websites that include video clips, scientific text build around visual data displays, radio commentaries, online reference collections etc., basic composing strategies have changed. Professionals in every discipline: math, physical education, health and medicine, education, science, engineering, the military are communicating information via multimodal text like PowerPoint presentation, video tutorials, data displays and animations, educational websites and they are expecting students to understand basic strategies for reading in composing such texts. In this context basic composition instruction must be changed in order to provide students with a wider range of semiotic resources. Extremely fast changing of communication does suggest however that the teaching of rhetorically based strategies for composition, the responsibility of introducing students to all



available means of communicating effectively and productively including words images sound remains the purview of composition teachers. Thus, we can conclude that proficiency in multimodal writing for ESP students is highly needed skill. Teachers do not need to have the special expertise in the field of multimodal composing as they have accustomed to the digital reality and experiencing the same trends as their students. However, teachers should introduce the variety of software tools that might be used in creating multimodal composing.

The third concern is that multimodal composing would make L2 writers rely on non-linguistic modes and resources to avoid the use of L2.

One of the main concerns composition teachers considering the addition of multimodal composition assignments in their courses is that the instruction involved in such projects may take valuable time away from more fundamental instruction on the written world, instruction that many teachers feel is sorely needed among contemporary students.

Writing is vital tool to educated citizens indeed it is clear that alphabetic writing and the ability to express oneself in writing retains a special and privileged position in the Education of contemporary citizens. The fact that alphabetic literacy remains a key responsibility of composition educator is difficult to refute so it is not our purpose to suggest that composition teachers should abandon this belief or the practices it suggests. Communication modalities among them images and animations, sound and color are in the process of becoming increasingly important especially in a world increasingly global in its reach and increasingly dependent on digital communication networks. Educators hold that responsibilities and will not ignore these changes. In many disciplines including composition, educators are adapting the instruction to the to the changes of a world characterized by multi-modal communication.

We also believe that teaching students to make sound rhetorically based use of videos, still images, animation and sound can actually help them better understand the particular affordance of written language. Such instruction can provide students with



additional and instructive strategies for communicating in writing.

Whether instructors teaching composition solely or multimodal composition their job remains essentially the same: to teach students effective, rhetorically based strategies for taking advantage of all available means of communicating effectively and productively, to multiple audiences for different purposes, and using a range of genres.

In sum, multimodal composition remains a controversial and probably confusing topic in our field. Part of the controversy seems to stem from partial or misunderstanding of the concept “multimodal composing”. For instance, many researchers equate “digital composing” with “multimodal composing” or confuse “media” with “mode”. For better understanding the topic and to outline the basic notions, it should be noted that “multimodal” refers to the use and design of multiple modes, or semiotic resources, including both language and other modes that people compose with; “digital”, on the other hand, refers to the new media and composing tool, i.e., the digital technology with which people compose (Jin, 2023). A text can be both digital and multimodal (websites with both text and images and music on the background) or multimodal but non-digital (pop-up story book), or digital but monomodal (Kindle book chapter with alphabetic text), or non-digital and monomodal (alphabetic text on sticky notes). Undoubtedly, digital technologies have been fostering the flourishing of modes and explodes the possibility of multimodality, provides more powerful tools for multimodal composition. We have to recognize that “multimodal” forerun the “digital” and multimodal text can exist successfully out of the digital media (Manchón, 2017). The distinction between “multimodal” and “digital” is crucial mainly for two reasons. First of all, it helps to comprehend that multimodal composing does not necessarily require the usage of technology, so it means it could be implemented in low-technology classroom (or at home). Secondly, multimodal composing and digital composing may demand absolutely different set of skills or expertise, So L2 teacher should clearly introduce the particular composing practice to students and clearly understand that multimodal task more likely can be digitally



performed but digital task not always multimodal.

5.4. Variety of multimodal composing assignments. Examples.

To address and coordinate the very different conceptualization of multimodality in English language education and content areas, Grapin (2019) summarizes and proposes two types of multimodal composing task, the weak version and the strong version: the weak version of multimodality, which prevails in language education, views and non-linguistic modes as a supplementary and temporary scaffolding for language development and would be substituted once students are competent enough to capture the meaning with linguistic modes (i.e. written and oral language).

The strong version of multimodality, which is usually adopted in contact areas, views both linguistic and non-linguistic modes as essential semiotic resources to capture meaning. The former regards L2 development as the ultimate goal of multimodal composing, while the latter views multimodal composition as the norm of disciplinary representation and communication. The strong version of multimodality can predict the prevailing perception that linguistic modes dominate the academic discourse in higher education. Undeniably, animated materials are perceived as essential in an academic presentation composing task, which can be even superior to language when it comes to capturing a particular type of information. Considering all mentioned we are focusing on the strong version of multimodal composing tasks as we designing them for students of technical university. In university curriculum ESP is taught for the 3-d and 4-th year students after completing course on general English. In this article we are examining the task for software engineers (Department of Software engineering in Energy industry, Educational and Scientific institute of Atomic and Thermal energy, National Technical University of Ukraine “Igor Sikorsky Kyiv Polytechnic Institute”)



Unfortunately, the multimodal composing for ESP students have not been researched in depth. However, there are studies conducted on multimodal composition and writing instruction in general that could be extrapolated to ESP students as well. To fill this research gap, current study explores variety of multimodal composing task and its affordance and relevance in ESP classes.

Existing task we can classify according to the modes they are presenting image multimodal composing, where the first in this group might be photo essays. Should be noted that for all existing tasks, prewriting stage is of utmost importance as multimodal composing constitutes complex and multilayered outcome. One of the competent frameworks of prewriting stage which is divided into two sections, known as Invention and Arrangement (Mogahed, 2013). Invention covers all activities that focus on boosting more ideas and perspectives. Brainstorming, freewriting and listening might be perfect example of Invention part. As for arrangement, the activities mostly designed for identifying and memorizing the structure of the essay. Graphic organizer, series chain and fishbone map might be the convincing variety of activities.

Many studies proved the effectiveness of prewriting stages in composing of traditional writing assignments. Referring to the multimodal composing undeniably can be drawn the same conclusion as multimodal composing should be properly planned and organized otherwise it could be shifted to traditional one.

Photo essay is a variety of multimodal writing to tell a story or make a point. In a photo essay, images are placed in a specific order in order to send a particular message to an audience. Some photo essays will have text to support the photos or provide details, but some photo essays will have no text at all. The process of organizing a multimodal writing involve choosing a specific topic or angle with a traditional essay, you need a specific focus for your photo essay; conducting some research to dive into the topic, to get overwhelming spectrum of, it's important to conduct some research when you create a photo essay. Doing research can help you narrow your focus and have a better idea about what you want to photograph for your essay. Next step is



considering more photos than you need. It's important to plan well for a photo essay, and part of that planning involves taking more pictures than you may feel is necessary at first. When it's time to put your photo essay together, you'll be thankful if you have a lot of options.

Final step is igniting your creativity skill and broaden your artistic horizon that involves taking pictures using your cell phone and editing them using Instagram. Instagram will also let you change the look and feel of your pictures using filters, which can allow you to edit your pictures to really fit the mood of the photo essay you are trying to create.

While assigning task to your students it would be desirable to introduce them some photo editing programs.

One more example of a task for image multimodal writing in ESP could be creating an infographic or a visual presentation to explain a complex scientific concept or process. This task would require the students to combine their writing skills with visual design skills to effectively communicate information in a clear and concise manner. An infographic, in the context of multimodal composition, is a sophisticated visual representation that amalgamates multiple forms of content to effectively communicate complex data or concepts. This approach is particularly relevant in scientific journals, where the objective is to distill and convey intricate information in a clear, engaging, and accessible format. Here are the critical elements of infographics in a scientific setting:

- Integration of Text and Visual Elements:

Infographics in scientific contexts often merge textual explanations with a variety of visual elements, including diagrams, charts, images, and icons. This integration allows for a more comprehensive communication of complex ideas, making the information easier to digest and understand.

- Advanced Data Visualization:

Scientific infographics rely heavily on data visualization techniques such as line



graphs, bar charts, scatter plots, and heat maps to represent data trends, relationships, and comparisons. This visualization facilitates a quicker understanding of scientific results, allowing readers to discern patterns and draw conclusions efficiently.

- **Structured Narrative Flow:**

A well-designed scientific infographic employs a clear structure and narrative flow to guide the reader through the content. This can be achieved through hierarchical organization, clear headings, subheadings, bullet points, and the use of numbered sequences, creating a logical progression that enhances comprehension.

- **Use of Color and Typography for Emphasis:**

The strategic use of color and typography plays a significant role in scientific infographics. Colors can be utilized to differentiate between various data sets, highlight key findings, or indicate specific categories. Typography, including font choice and size, can influence readability and direct the reader's attention to essential points.

- **Icons, Symbols, and Visual Metaphors:**

Infographics in scientific journals often incorporate icons, symbols, and visual metaphors to represent abstract concepts or detailed information succinctly. These elements can reduce the reliance on extensive text, contributing to a cleaner and more visually appealing presentation.

- **Interactive and Multimedia Elements:**

Some scientific infographics embrace interactive components, enabling users to interact with the content to explore data in greater depth. This might include clickable areas, zoomable graphics, or embedded multimedia content, enhancing the user experience and encouraging deeper engagement with the information.

Infographics serve as an effective form of multimodal composition and promising skill for student in their scientific sphere, providing a dynamic and engaging way to communicate complex scientific data and concepts. By combining textual and visual elements with structured narratives and interactive features, they offer a compelling approach to disseminating scientific information to a broad audience.



Another task could involve creating a collaborative online document or a wiki page where students contribute written content, images, and other multimedia elements related to a specific topic in their field of study. This task would emphasize their ability to write collaboratively, integrate different modes of communication, and present information in appealing way.

A wiki page, exemplifying multimodal writing, is a collaborative web-based platform that incorporates various modes of communication to create a comprehensive and interactive repository of information. This form of writing is inherently dynamic, allowing for continuous updates and contributions from multiple users. Here are the key characteristics of wiki pages that underscore their multimodal nature:

- Textual Content and Hypertextuality:

At its core, a wiki page relies heavily on textual content, with contributors writing and editing information to build a cohesive narrative. However, what sets it apart is its hypertextuality—the extensive use of hyperlinks to interconnect related topics within the wiki or to external sources. This creates a networked structure that encourages users to explore and navigate through a complex web of knowledge.

- Visual Elements and Multimedia Integration:

Wiki pages often include a variety of visual elements such as images, diagrams, charts, and infographics to enhance textual content. Additionally, multimedia elements like videos, audio clips, and interactive content can be embedded, providing users with a richer, more immersive experience. These visual and multimedia components help to illustrate concepts, add context, and engage users on multiple sensory levels.

- Collaborative Editing and Version Control:

A distinguishing feature of wiki pages is the collaborative editing process. Multiple users can contribute to and modify content, fostering a sense of collective authorship. This collaborative approach is supported by version control mechanisms that track changes, allowing users to view the page's history, compare versions, and revert to previous iterations if needed. This adds a temporal dimension to the



multimodal composition, as the content evolves over time.

- **Structured Layout and Navigation:**

To accommodate a vast array of content, wiki pages employ a structured layout with clear headings, subheadings, and hierarchical organization. This structure provides a logical flow, guiding users through the content. Navigation elements such as tables of contents, sidebars, and category tags further aid in organizing information, facilitating easy access to specific sections.

- **Interactivity and User Engagement:**

Interactivity is a key component of wiki pages. Users can leave comments, ask questions, or initiate discussions, creating a sense of community and fostering engagement. Some wikis also include features like polls, quizzes, or other interactive elements that encourage user participation and contribute to a more dynamic experience.

- **Accessibility and User-Focused Design:**

Wiki pages often emphasize accessibility, aiming to be inclusive for a diverse audience. This includes considerations for readable fonts, color contrast, and screen reader compatibility. The user-focused design ensures that the multimodal elements are not only aesthetically pleasing but also functional and accessible to all users.

In summary, a wiki page as a form of multimodal writing brings together text, visual elements, multimedia, interactivity, and collaborative processes to create a dynamic and accessible platform for information sharing. This combination of modes allows for a rich, user-driven experience that can adapt and evolve over time, making it an ideal medium for collaborative knowledge creation and dissemination multimodal writing.

Some tasks can be organized within tight cooperation with teachers of specialized subject. Main objective is to equip students with professional terms. As L2 courses focusing mainly on L2 development this ESP course may be organized concurrently with the web design teacher for example. Such concurrent curriculum



design would position language as an essential component of a particular genre of multimodal task and blend L2 writing development organically with the learning and mastering of non-linguistic modes. The same focus on language with or without being aware of the existence and significance of other semiotic resources could lead to different curriculum designs leading to different learning outcomes. Furthermore, an intermediate academic L2 writing course may be designed with a following advanced academic L2 writing course: while the former may focus primarily on general academic language development (i.e., linguistic modes), the latter may further delve into specific academic composing tasks, such as designing an academic presentation as Microsoft PowerPoint, in which visual modes may play critical roles. Such thinking helps L2 writing teachers better map out the diverse degree sources that L2 writers need the most across different stages.

Video multimodal composing

Video texts use the modalities of moving and still images and sound as primary semiotic channels. Composing this text involves a series of production processes that in some ways resemble those involved in more conventional alphabetic composing and sound essays: brainstorming and planning (often in writing or using a planning diagram); finding, citing, documenting and requesting permission for copyrighted video and audio material to include in the video document; putting videos and sound into a digital format; selecting, arranging, and organizing video segments and their accompanying audio tracks; engaging in peer review revising and editing a video document; experimenting with this version and drafts of video text; and assessing sharing, distributing, and reflecting on video texts (Cynthia L. Selfe)

General steps of completing video multimodal writing include following processes

Prewriting processes

- thinking about purpose, audience, and form
- planning and brainstorming for various ideas within given topic



- shooting digital video with a video cam or searching for appropriate on the Internet. If needed, next step is uploading to your computer

- finding, citing, and documenting audio sources
- requesting permission for copyrighted audio material (not so widespread procedure in Ukraine)

Processing and manipulation processes

- using a photo manipulation program to edit images and import them into digital video format

- using a video editing program to edit video clips
- experimenting with different approaches to arranging and organizing audio and video materials in various versions

- peer review of and teacher's feedback to drafts

- adding sound tracks

Presenting processes

- compressing video and sharing on the web
- reflecting (often in writing in the form of supplementing script to multimodal composing in this case video composing)) on the learning associated with video composing

Much like photo essays and traditional essays, video essays tell a story or make a point. The difference is that video essays use video to present the information.

When you make a video essay, you can use video, pictures, text, music, and/or narration to create a video essay that is powerful and effective. If you think about, many music videos are actually video essays, so chances are, you know a lot more about video essays than you might think. And, because the creation of videos for YouTube has become so popular, many professors are assigning video essays as an alternative to traditional essays.

Another task could involve creating a video tutorial or a screencast demonstrating a technical procedure related to their field of study. This task would



require students to write a script, record their voiceover, and synchronize it with relevant visuals. It would help them develop their writing skills, as well as their ability to communicate information through different modalities.

It should be noted that the effectiveness of these tasks for ESP students may vary depending on their specific needs, linguistic proficiency, and professional goals. As it was mentioned above little has been done in the field of multimodal composition for ESP students, one of the sample tasks is taken from the book “Multimodal composition. Resource for teachers” by Cynthia L. Selfe and tailored to the needs of technical students, future software engineering specialists.

Sample assignment 1. Shaping the future of computing technology by looking back at family history.

Objective. Compose a video text about history of computers within your family (family archive to show how the computers that used by parents and grandparents have undergone tremendous changes)

In your multimodal composing combine video, still images, audio, written text or narration. You can use one or more of the following ideas.

- Personal view on the possession of the digital gadgets so called retrospective of personal computers in your life; interesting or unusual devices, which were the most valuable and why; present aspirations and dreams referring upgrading your computer system

- Family member who has captivating personal history of computer usage
- a person that practices an interesting unusual kind time regulatory

Your video composing should have the following characteristic

- some video or still images, some narration of voiceover (script), and some music that augment the main information about the topic

- information that is relevant to our class discussion
- a title screen for your video composing



- a credit screen that includes full citations, video clip images, music that you download and use

The project should employ the affordances of the media you are using in effective rhetorical ways. It should be characterized by careful design that helps you to convey meaning the project should be both communicative and creative.

The project should do more than simply depict illiteracy practice, values, issues place, event and genre. It should help reader/ viewers reflect on/ gain insight into the subject of the video. Provide student with the information about relevant software they might need to complete the task. Taking to account striking level of technological breakthrough, student might be real expert in video and audio editing and teachers in this case do not represent any practical assistance. Moreover, presented assignment could be modified depending on the aims and achieving the specific competencies. If you making emphasis on speaking skill and collaborative task, team or group projects would be appropriate.

Sample assignment 2. Advertising Campaign for startup in IT sphere

Objective: Create a multimodal advertising campaign for startup in IT sphere, integrating various modes of communication to effectively promote their chosen service to a target audience.

In your multimodal composing combine video, still images, audio, written text or narration. You can use one or more of the following ideas.

- Students should decide which service of IT company they would like to promote. The service can be related to their field of study (software engineering) or an everyday consumer item.

- Students need to identify their target audience for the advertising campaign and determine the specific purpose of their campaign (e.g., inform, persuade, entertain, etc.). They should consider the needs, interests, and demographics of the target audience.



Your multimodal writing should consist of written component. It might be a slogan or tagline. Students must come up with a catchy and memorable slogan or tagline that effectively conveys the key message or benefits of the service provided by the company. Another written task may be the service description as fascinating and concise map of services. International cooperation program and direction of activities.

Visual component of your modal writing could be implemented in Logo Design. Students should design a logo that represents service and creates brand recognition. Students could supplement creating logo design with appropriate images, illustrations, photographs that visually enhance the campaign's message and appeal to the target audience.

Audio component might be desirable means to create unforgettable sound effects. As far as students are generating memorable ad, music is an extremely resultant tool to enhance the overall message and evoke desired emotions in the target audience.

There several possible ways to present students' multimodal assignment.

- Digital Presentation. Students should compile all the components of their advertising campaign (written, visual, audio) into a multimedia format (e.g., PowerPoint, video, website) that can be presented to the class

- Online presentation. There are plenty of online platforms that are used by lecturer in Ukraine and all over the world (Google meet, Zoom). According to the chosen format, it might be personal presentation or collaborative.

Assessment comprises two aspects. The first is feedback by the lecturer in terms of grammar, spelling mistakes and the overall coherence. The second is peer assessment in the form of voting for the best advertisement. Described assignments enable students to develop their writing skills while engaging with other modes of communication, fostering creativity, critical thinking, and effective visual and auditory communication. What is extremely important while teaching online, such tasks reduce to the minimum the practice of referring to the AI. As it remarkably difficult to distinguish whether writing assignment was performed by the student or by AI. So, the



main shift for teaching online should be towards multimodal writing.

5.5. Case study. Effectiveness of multimodal writing task for the ESP students

The study was conducted at the National Technical University “Igor Sykorsky Kyiv Politechnic institute”. The participants, whose ages ranged from 18 to 19, were group of 3-d year students (24) of Software Engineering for Power Industry at the Educational and Scientific institute of atomic and energy, taking the Practical English Language Course for Professional Communication I. This was a three-credit one-hour capstone course of the program and mandatory for students of given speciality. The class met ones a week for two-and-a-half hours. The lecturer wanted to expand the range of activities in online class to make the studying process more engaging, present potential educational benefits of multimodal writing, and to explore the ways in which the learners used linguistic, visual, audio, and spatial modes of representation, analyze time spent to complete the task to make recommendation whether multimodal composing would be beneficial in ESP environment.

To ensure that learners could create a multimodal composing, instructor designed a task-based approach, in which an overall task was broken down into several interrelated steps to make the task more manageable. Following this model, the development of multimodal composing was structured in four steps over the course of one semester .

As the task for multimodal writing was proposed a following topic: Computers. Past and Present. What discoveries/ technologies/people did completely change the course of development of computing technologies?



Table 1. Steps of multimodal writing and data collection procedures

Step Schedule	Time spent	Tasks
Step 1	Part of the home assignment. One week.	Write one argumentative essay. Find relevant images related to the content of this essay. Think of a personal story related to essay.
Step 2	In class activity (1.5 h)	Students with a teacher Examine the selected images and their relation to the topics. Comment on examples of peers, brainstorming possible integration of sounds, video. Decide on taking the essay as the principal text or altering the text according to the image
Step 3	In class activity (30 min)	Students with a teacher: Exposing to editing programs (online programs included), discussing tools. Home assignment :writing a script, converting narrative text into a script with audio or video effects
Step 4	In class activity (1.5 h)	Presenting module writing by uploading it on Google classroom or in class. Uploading the script. Teacher provides students with written feedback after discussion with other students (could be organized anonymous voting for the best modality composing and the winner might get extra points)

On presenting the multimodal writing, students were asked to complete a questionnaire.

1. Name _____

2. Age _____

3. Gender: Female/Male

1. How did the use of the images (audio, video) brighten up your story?

2. Describe at least two images that had stood out to you when you researched and developed your story.

3. How much time did you spend on completing multimodal composing?

4. To what extent does multimodal composing as a medium develop writing skills?

5. Did your story become appealing to your peers on being transformed to multimodal?

6. What resources (websites, images, equipment, etc.) did you use to complete your



digital story?

7. What have you learned about the topic you chose?

The data for this study comprises two main forms: (1) online discussion in which learners explained in English how they created their scripts and selected and used images and sound to support them; (2) and an English questionnaire.

Regarding the first question, almost all students indicated that final result in the form of multimodal writing extensively illuminated the story. The fusion of various semiotic resources and their possibilities enabled learners to adopt new levels of meaning, especially those related to emotions. 19 out of 24 participants recognized that the integration of images and sound goes beyond the reproduction of written text, and understood that sound and music become an integral part of the story and have a specific function within the multimodal composing. Consequently, as it related tightly to the 5-th question, all students acknowledged that story became appealing and inspiring.

During the discussion it was revealed that throughout the development steps, learners saw how different modes (text, images, sound) work together.

They argue that nonverbal modes are not complementary to the written text, but must effectively supplement the central message, and that incorporating images and sounds creates a compelling multimodal metaphor.

When addressing the time spent on completing this task, students unanimously reached the conclusion that it was extremely time-consuming. It is not a surprise as this Practical English course accepted by the students as supplementary to their special courses. Hardly we as lecture can influence the current state of affairs, the problem is overwhelming and multilayered that comprise a lot of aspect from the war and online education to urgent transformation of higher education. Students' comments indicate that they needed to have more motivation to complete such task or such tasks might be a part of their self-study assignments that later on should be checked by the subject or specialty teacher.



Regarding resources (question 6), all students noted that there were no problems with special programs (this situation is caused by the fact that the research was conducted in a group of students studying software engineering). Students chose the program themselves, there were no restrictions. The only requirement from the teacher is to get a quality outcome in the form of multimodal writing. The students noted that in the process of working on the task, they were sometimes forced to depart from the script, as they believed that a higher quality product would be obtained, for example, with a different picture or a different audio accompaniment.

Addressing developing of writing skills (question 4), generally students paid more attention to vocabulary use while completing any of the writing task. Considering set topic (history of computers) in class and in their essays, students reflected on background knowledge and a range of vocabulary that could be drawn on for writing about their specific topics. Majority of the students mentioned as they developed their scripts, they realized that, apart from topic-related vocabulary, they needed suitable words to express their personal views. This created the need for an enriched vocabulary to express feelings, emotions, and opinions. Thus, this multimodal writing task could be considered as effective tool to expand vocabulary.

Overall, the purpose of this experiment was to examine students' reflections and comments about developing a multimodal text, to evaluate the effectiveness of such task for ESP students by analyzing the learner's perceptions. This study reflects their understanding of how the text was transformed by the use of multimedia tools. The results show that the learners' use of text, images, and sound via editing software influence the development of their multimodal writing. In terms of the written texts learners showed that they were able to understand the syntactic, vocabulary, and structural changes required to move from a traditional text to the narrative multimodal writing. It became obvious for students that power of images can amplify the meaning of the text creating compelling multimodal metaphors.

During the completion of the task, the learner completed a series of actions that



primarily designed for developing creativity, such as thinking about content, selecting images, writing the text, and receiving feedback, all of each supported the achievement of the final goals.

Manipulating text, sound, and imagery; receiving instructor and peer feedback; listening you responding to students' comments; and reading scripts out loud gave the learners a clear understanding of the task. Such overwhelming and detailed approach reduce to the minimum application of the AI.

One more thing that should be noted that the personal nature of multimodal writing, with their merging of images and sounds, did have an impact on the language used in the narrative as this task needs to be presented to the students or independent viewers (in case of posting it online if it is required).

Learners assume that multimodal writing allows them to experiment with the use of pauses, repetition, and voice infections in other words, practice skill of giving public speeches. However, all students appeared to be daunted by the time they need to spend to complete and present the task. Thus, this factor must be considered attentively while planning the lessons in general or introducing this task into curriculum.

5.6. Recommendation and methods of introducing multimodal writing into ESP curricula

Multimodal writing fairly new approach for teaching ESP and unfortunately, insufficient researches have been conducted so far. However, there are profound researches available in the sphere of multimodality and application of different modes (Lutkewitte, 2013).

The principal goal of this study is to look more closely at multimodal writing and to assess the effectiveness of such task for ESP students. The main focus was on relevance of such tasks to ESP students, whether multimodal writing correspond to



optimal criterion of the higher education.

Qualitative analysis of students' use of multimodal diversity showed the ways students used diverse modes to enhance the meaning of their written production.

One of the concerns described in the article was about inefficiency of modal writing in terms of language development. As it was revealed in the study, the situation is absolutely opposite –multimodal writing does not obstruct language use opportunities. Introducing Task-based language teaching and focusing on the content were the crucial conditions for assisting students to practice multimodal writing. Linguistic performance was the primary subject to study as for students of higher education establishment it is the fundamental task. Other dimensions were involved like accuracy, and syntactic, and lexical complexity.

One of the findings support the idea that students' writing performance in multimodal writing comprise multiple semiotic tools and this writing was not profoundly different from traditional monomodal writing. This finding may appease teacher's apprehensions about the implementation of multimodal composing in forming curriculum in terms of losing students attention to language. On the contrary, study reveals that multimodal writing includes multiple composing forms, enhance students' creativity skills. Finally, teachers would benefit a lot from introducing this new genre writing in their L2 writing classes as it has been increasingly used in the current digital era.

Secondly the study investigated learning engagement with text by assessing the amount of reflection on dealing with multiple resources (websites, images, texts etc.). To date with the exception of a view studies investigating learning engagement with language during multimodal composing has been neglected.

As it appears, multimodality is a normal state of human communication and multimodality is a reality that all L2 learners live in. Disputation mostly resides in partial understanding of what is multimodal composing. As it was defined in the beginning, multimodal writing is multiple semiotic products received by combining



different modes. Experiment showed that it is extremely important to expose all teachers to the definition, shedding light on different modes and variety of merging to get final semiotic product. Hardly could be underestimated the fact that all learners (students) should be familiar with the understanding of multimodal writing. Otherwise, this assignment turns out to be useless and academically inadequate.

Part of the hesitation may appear from the narrow understanding of how L2 writers in general refer to and employ language and linguistic resources during their multimodal composing process; and how the linguistic mode contacts with other non-linguistic modes in a multimodal ensemble composing final product. As Li and Storch (2017) pointed out, “how students move across modality and language during the composing process is largely unexplored”. In this scientific monograph, attempt to investigate the aspect of multimodal writing in ESP have been made to get slightly more understanding of this “movement”. Study revealed that clear instructions and orientation to the final outcome play a crucial role in successful presentation of multimodal writing. Despite available literature on this topic in the field of multimodal writing (Smith et al., 2017), there are space to continue research of multimodal composing for different educational needs and purposes.

Traditionally, language instruction was based on teaching the four skills and didn't leave much room for development of critical thinking. Upon introduction of communicative approach, critical thinking skill has got the appropriate value. Moreover, our society has become more and more diverse and globalized, the English language classroom needs to be a space that not only upgrading language skills, but also inspires learners to be creative, collaborative members of society.

So, pedagogy based on multiliteracies moves English language learning beyond just the acquisition of language skills, and supports the development of critical literacy. The multiliteracies framework puts emphasis on the changing literacy practices, within constantly changing educational environment and rapid and irreversible development of technologies. Thus, it is advisable for teachers of ESP to reconsider curriculum and



to include some tasks on multimodal writing.

Multimodal composing activity also helps students to become more critically literate, as it stimulates critical thinking and creativity while diving into social and cultural contexts and depicting thought-provoking issues.

As study reveals, practicing multimodal composing activity, students also learned how to use skills such as sequencing, reporting, analyzing, and comparing and contrasting to achieve different communicative purposes. This functions in the context of meaningful project help them to build skills that could be transferable to other content areas. Thus, using the multiliteracies pedagogy enables teachers of ESP to bridge their students' language learning with their academic development.

Another contribution the multiliteracy pedagogy makes in English language education is that it brings linguistic and cultural diversity into the language classroom.

The integration of multimodal projects into educational settings is associated with increased demands for collaboration and teamwork due to the inherent complexity of such projects and the diverse skill sets individuals bring to their execution. The need for effective teamwork suggests that successful implementation of multimodal assignments requires coordination and mutual understanding among participants.

Multimodal literacies have played a pivotal role in expanding the avenues through which individuals acquire information and comprehend concepts. The utilization of various modes, such as visual, auditory, and interactive elements, has broadened the scope of learning experiences, facilitating a more comprehensive understanding of complex subjects.

The transition to multimodal assignments offers an opportunity to tap into the diverse creativity of students. According to students' position, the shift allows educators to witness a broader spectrum of imaginative expressions from students, providing a motivational boost. The flexibility offered by multimodal projects, as opposed to traditional written assignments, is highlighted, allowing students to explore a wider range of creative possibilities.



Furthermore, there are endless opportunities in multimodal assignments and it is definitely a departure from the constraints of traditional, structured written assignments that positively influence the developing of creative skills. The assertion that multimodal projects demand more from students in terms of rigor, while simultaneously being more enjoyable, indicates a positive correlation between increased engagement and academic challenge, suggesting that multimodal assignments may offer a more stimulating and fulfilling learning experience compared to conventional methods.

As far as multimodal assignment is only starting their implementation into the curriculum of higher educational establishments, it would be preferable for ESP teachers draw their attention to the following aspect:

1. ESP teachers should engage in professional development opportunities to enhance their understanding of multimodal composing. Attend workshops, webinars, or conferences that focus on the theory and practical aspects of incorporating multimodal elements into language teaching.

2. Keep abreast of technological advancements and tools that support multimodal composing. Familiarize yourself with various multimedia platforms, design tools, and applications that can be integrated into language instruction.

3. Identify the specific needs and goals of your ESP students. Consider the industry or field they are preparing for and tailor multimodal assignments to align with the communication skills they will need in their professional contexts.

4. Clearly articulate the learning objectives associated with multimodal composing assignments. Specify the language skills, digital literacy, and communication competencies you aim to develop in your students through these projects.

5. Establish clear guidelines and assessment rubrics for multimodal projects. This helps students understand expectations and criteria for evaluation, ensuring a structured and transparent assessment process.



6. Foster a collaborative learning environment where students can work together on multimodal projects. Collaboration enhances creativity and allows students to leverage diverse skills, mirroring real-world professional scenarios.

8. Integrate reflection components into the assignment structure. Encourage students to reflect on their choices of modes, the effectiveness of their communication strategies, and the transferability of these skills to their future professional contexts.

9. Recognize and accommodate diverse learning styles and preferences. Allow students to choose from a variety of modes (text, images, audio, video) based on their strengths and interests, promoting a more inclusive learning experience.

10. Ensure students have access to resources such as tutorials, templates, and examples that can guide them in creating effective multimodal compositions. This support can alleviate initial challenges and build students' confidence.

11. Provide constructive feedback on multimodal projects and encourage students to iterate on their work. This iterative process helps students refine their communication skills and promotes continuous improvement.

12. Actively involve teachers of special subjects in cooperation to significantly improve the component of specialization, as this is extremely important for students in further cooperation and work in international companies. These can be called business games, which, along with role-playing games, began to gain popularity in the communicative approach to teaching in the early 2000s. But a significant difference in our case will be the integration of different modalities along with the use of professional vocabulary and the performance of tasks within the framework of obtaining specialized education.

By implementing these recommendations, ESP teachers can effectively cope with confusion about what multimodality is and become open to new educational approaches and methods that in turn will help students to be equipped with valuable skills that align with the communication demands of their specific professional contexts. Despite the fact that preparation of multimodal composing tasks implies



meticulous approach including overwhelming vision of the assignment, undoubtedly, both teachers and learners benefit from multimodal composing tasks. Constantly changing life demands fundamentally innovative decisions and approaches.

A modern student is clearly aware of his own life goal and gradually paved the way to achieve it successfully. The teaching staff adjust activities to assimilate basic knowledge, skills and abilities by the student, but also to promote the comprehensive development of each student, creates an educational environment for the implementation of creative skills.

A modern teacher recklessly experiments with facilities and traditional algorithm of delivering of educational information, appeals to the innovative methods and approaches, adapts oneself to the internal and external changes of the students, their needs and renewed aims. Thus, multimodal composing is one of the promising tool to motivate English learning process.