

Effectiveness of linguistic and extralinguistic tools across English language comics during the perception of scientific information

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Abstract

The modern development of social communications in connection with the mass transition to the online mode of life and education becomes decisive. At the same time this tradition changes communication channels and information transmission due to their pedagogical and educational contexts. Monitoring consists in studying the saturation of these channels with verbal, visual and symbolic systems of signs that manifest the phenomenon of polymodality. One of the active channels of communication on the Internet has become comic as a form of verbal-visual communication. Verbal saturation in comics is considered as a system of worked-out rules, and drawings. System of signs is filled with the purpose and goals by author of the text. The purpose of the study is to evaluate the effectiveness of main directions of English-language comics for the reader's perception of scientific literature through the use of linguistic and extralinguistic features. The analytical and bibliographic method of scientific literature in the context of the applied verbal and paraverbal elements of the text is adopted. Regarding, a questionnaire was used to verify the practical aspects of the perception of the comics test. The results of the study made it possible to hierarchically construct the types of verbal and extralingual means used in English-language comics, and to characterize the peculiarities of verbal and extralingual means from the viewpoint of polymodality of their use.

Keywords: verbal elements, paraverbal elements, verbal component, multimodal tools, verbal communication means, extralingual means

Introduction

A comic paper is not a separate literary work, but an information product written in a special verbal-visual language, just like magazines or novels are written in a special language peculiar only to them. Thus, a comic paper, written with the help of verbal and visual means of communication, respectively demonstrates visually and verbally the multimodality of communication through language, image and signs (Alahmadi, 2022).

Paralinguistic means in the English-language comic paper expand the channels of information transmission, contributing to their better assimilation. At the same time, reading a comic paper turns into engaging the reader in a unique world and a separate textual-visual system. The addressee controls the process of information decoding and directs the understanding of the text by the reader in the intended direction. In the theoretical part, the concepts and components of linguistic and extralinguistic tools have been considered; the components, functions and features of the combination of verbal and visual communication tools used in the creation of an English-language comic have been studied.

The practical part includes the overview of the most important functions and roles of verbal means in English-language comic papers. It discusses the importance of visual elements in this type of information products. The study identifies the most effective multimedia content types in the development of English-language comic papers from the perspective of their commercialization, as well as establishes the most common ways of interaction of textual elements and extralinguistic means in English-language comic papers.

Based on the results of the research, conclusions were made regarding the issues raised. In particular, it has been established that, according to the survey participants' standpoint, the most important functions of verbal means in English-language comics proved informative, expressive and thought-provoking. In addition, the survey has shown that in English-language comic papers, information, conveyed through verbal elements, can both complement the visual content and create a new message. The survey has also revealed that the visual element, like the verbal one, can convey information that demonstrates the interpersonal relationship between the characters and portrays their emotions. The feature of the visual element is that it acts in unity with the verbal one, namely: it complements, duplicates, replaces the verbal element and enhances its expressive and emotional content. According to the survey participants' standpoint, from the perspective of the commercialization of English-language comics, the most decisive are the graphic sign, deictic expressive markers, verbal means and colour.

The purpose of the research is to determine the standpoint of applied linguists and teachers of linguistic specialities of higher educational institutions regarding the most used and important means of communication in English-language comic papers.

Comics as a form of art and communication precede information and emotion through language and images. Therefore, they are a useful tool in language learning, especially in the initial stages. In addition, comics help to visualize language structures when such structures are quite difficult to read. Accordingly, the study of comics becomes useful, allowing you to learn languages at a higher level, while at the same time improving practical language skills.

Literature Review

The analysis of the literature on the research topic has shown the connection between verbal and paraverbal elements of the text which can be implicit and explicit. Its establishment depends on the linguistic knowledge of the researcher, and it is based on an in-depth analysis of the elements of the text (Marchenko & Marchenko, 2019).

Verbal communication on the pages of an English-language comic paper includes various exchanges of information using verbal signs and symbols. Coding information is focused on oral and written speech and decoding – on listening and reading; along with this, each type of language communication has a specific goal in the communication process (Kohnke, 2018).

By verbalization we understand the process of verbal expression and formation of language formulations. The verbal elements of a multimodal text include “means of language code: words, phrases, sentences, texts that convey information” (Wijaya et al., 2021). Like visual content, verbal content is an important part of a comic paper. The verbal component in the English-language comic paper is presented on several levels: phonetic, lexical, syntactic and textual (Abidin et al., 2022). In the English-language comic paper, information conveyed through verbal elements can both complement the visual content and create a new message, thanks to which the reader will receive comprehensive information about what is happening (Robbani, 2021).

While analysing the functions of verbal means in the English-language comic paper, it can be concluded that the English-language comic paper has informative, expressive, appealing, contact, identification and thought-provoking functions. In order to outline the functionality of the visual element, in addition to the specified informative, abstract functions and the functions of supplementing verbal elements

and enhancing the expressive and emotional meaning. It appears expedient to highlight the functions of replacing and duplicating the verbal element (Muggittu & Cufalo, 2017).

The study of analytical materials on the development and analysis of English-language comic papers demonstrates that, according to scientists' standpoint, the means of verbal communication of information products are aimed at describing the situation, subject or condition, providing additional information about the internal state of the addressee and his attitude to the recipient, as well as perform a social role and start or end a conversation. A visual element, like a verbal element, can transfer information that conveys the interpersonal attitude of characters and portrays their emotions. At the same time, the feature of the graphic element is that it acts in unity with the verbal element, namely: it complements, duplicates, replaces the verbal element and strengthens its expressive and emotional content (Al-Yasin & Ghaleb, 2019).

An integral part of studying the English-language comic papers is the analysis of their linguistic and cultural code. After all, the linguistic and cultural code is a holistic system of language signs, but predictable and semantically open to different interpretations, and their possible combinations, which are expressed graphically or with the help of text, while the semantic interaction of comic paper's elements is cognitive in nature, performing an adaptive and valuable function (Trupej, 2019).

An English-language comic paper does not have a metalanguage function, forasmuch as the insufficient amount of verbal content in the fragments can be supplemented by visual means, eliminating the need to explain verbal elements with the help of language. The poetic (aesthetic, rhetorical) function is present primarily in poetry; therefore, it is not characteristic of an English-language comic paper because the content of the message in the fragment is more important than its form (Wilkinson, 2021).

The contemporary comprehension of the deixis category lies in understanding this category as universal, functioning at all levels of communication. Three types of deixis are clearly presented in the visual and graphic text of English-language comic papers. Deictic markedness plays an important role in the visual-graphic text due to the fact that the indication of text symbols, their temporal and spatial localization is an integral part of the action taking place (Tishakov & Tsagari, 2022), (Skryl & Sharun, 2019). In our research, the product of the readers' thinking is not information presented from the outside, but information that has arisen from their own attitude towards the comic book they read.

Materials and Methods

The practical study of modern linguistic and extralinguistic features of the English-language comic papers was carried out by interviewing 92 applied linguists, as well as 164 teachers of linguistic specialities who conduct research and teaching activities in 22 educational institutions of higher education in the Chernihiv, Volyn, Rivne, Zhytomyr and Kyiv regions of Ukraine. The research was conducted using the Survey Planet service (<https://surveyplanet.com/>). The research was conducted based on the questionnaire method using the Survey Planet service. It is an online tool for creating online surveys and polls. This tool made it quick and easy to create surveys and get responses from your audience. Questionnaires were created with different types of questions, including open-ended and closed-ended questions, multiple-choice and multiple-choice questions, and scaled questions. The platform made it possible to conduct surveys in various options. In particular: through the generation of a QR code, the insertion of a direct link through HTML code directly on the websites of educational institutions, the distribution of questionnaires through the appropriate links in various messengers (Viber, Whatsap, Telegram). In addition, survey results were analyzed and interpreted using Survey Planet.

Results and Discussion

According to the standpoint of the survey participants regarding the functions of verbal means in the English-language comic paper, the most important of them are as follows. The quantitative results Fig. 1 are presented in percentage proportion format:

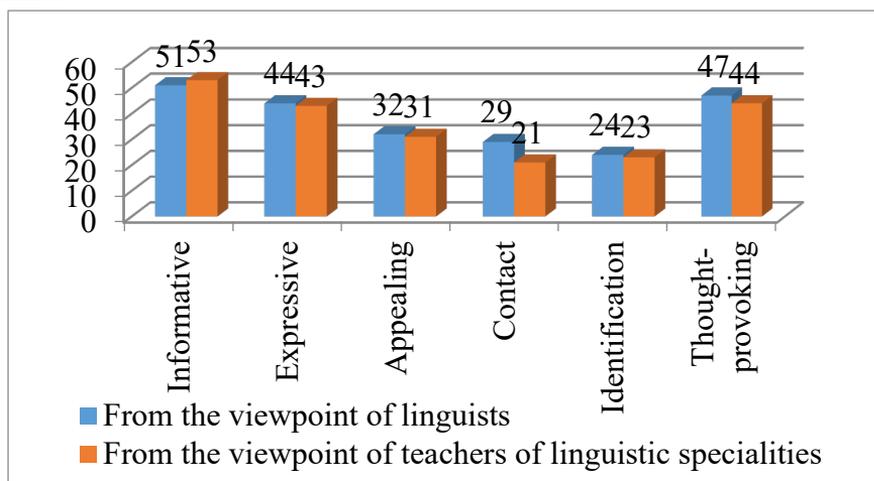


Figure 1. Functions of verbal means in the English-language comic paper.

Source: compiled by the authors

Analysing the data obtained as a result of the questionnaire, it can be concluded that verbal means in the English-language comic paper mainly play an informative, expressive and thought-provoking function.

In the course of the survey, the respondents have determined the role of verbal elements in English-language comics. The quantitative results Fig. 2 are presented in percentage proportion format:

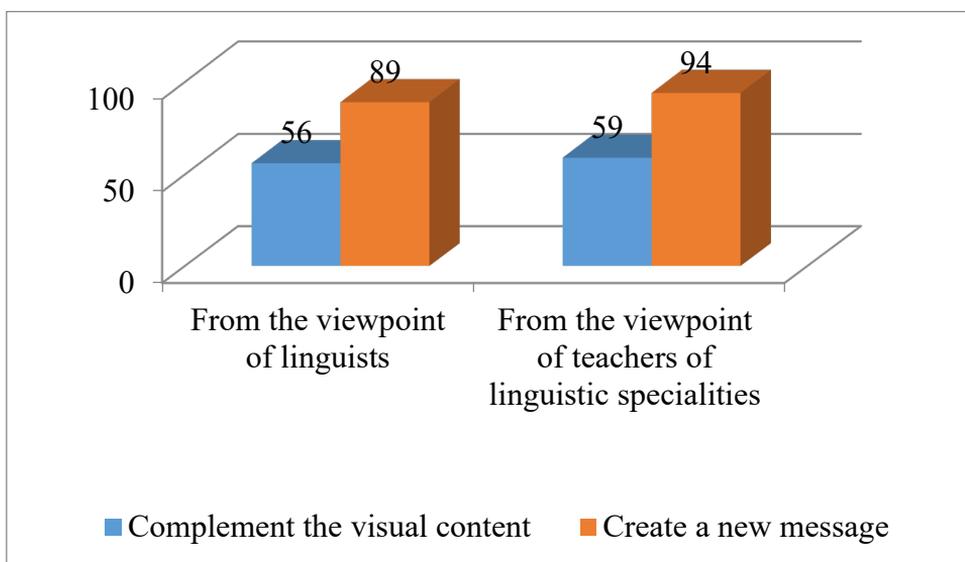


Figure 2. Role of verbal elements in the English-language comic papers.

Source: compiled by the authors

As it can be seen from Figure 2, in an English-language comic paper, information conveyed through verbal elements can both complement the visual content and create a new message, thanks to which the reader will receive comprehensive information about what is happening. Therefore, the means of verbal communication are aimed at describing a situation, object or state, providing additional information about the internal state of the addressee and his attitude towards the recipient, as well as perform a social role and start or end a conversation.

In order to outline the functional capabilities of the visual element of the English-language comic paper, the respondents, in particular, have determined that in addition to the specified informative, abstract functions and the functions of supplementing verbal elements and strengthening expressive and emotional

meaning, the functions of replacing and duplicating a verbal element have been also specifically defined. The quantitative results Fig. 3 are presented in percentage proportion format:

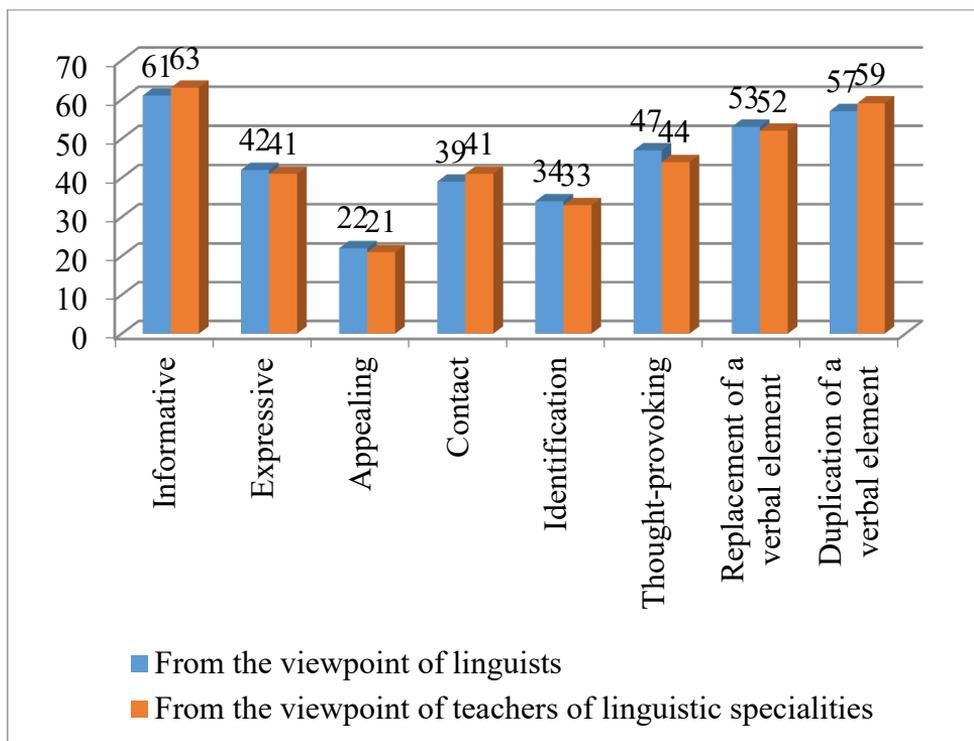


Figure 3. The role of visual elements in the English-language comic papers.

Source: compiled by the authors.

A visual element, like a verbal one, can transfer information that conveys the interpersonal attitude of characters and portrays their emotions. A distinguishing characteristic of the visual element is that it acts in unity with the verbal, namely: it complements, duplicates, replaces the verbal element and enhances its expressive and emotional content.

In the course of the research, the respondents have been asked to determine the types of multimedia content that are most effective and in demand in the development of the English-language comic papers. These types are as follows. The quantitative results Fig. 4 are presented in percentage proportion format.

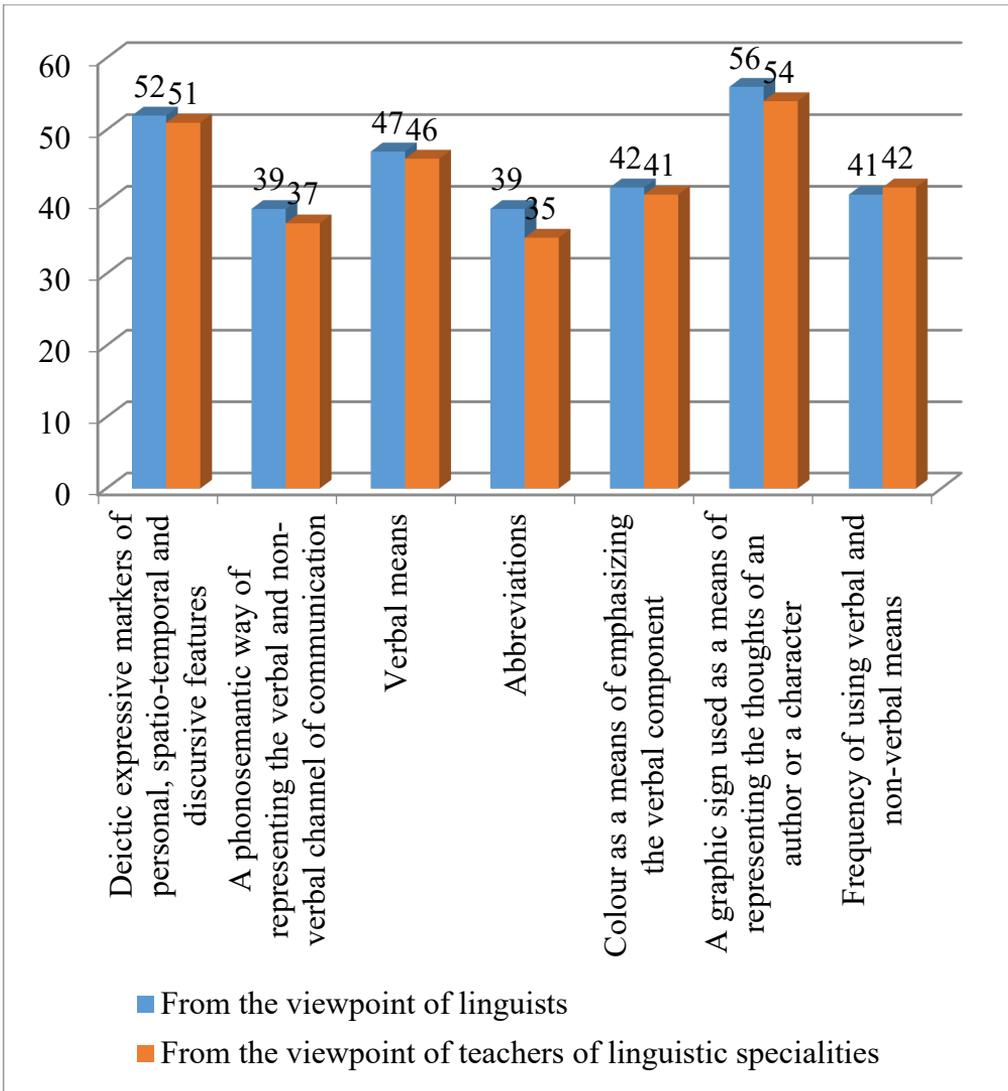


Figure 4. Types of multimedia content of the English-language comic papers from the perspective of their commercialization.

Source: compiled by the authors

As it can be seen from Figure 3, from the perspective of the commercialization of English-language comic papers, the most decisive are the graphic sign, deictic expressive markers, verbal means and colour.

The obtained results of the research make it possible to conclude that text (47%) is the most frequently used multimodal tool in the English-language comic papers,

forasmuch as its illustrative nature complements verbal means and enhances the impact of the message on the recipient.

Given that visual elements in comics can be used to create a verbal and symbolic game, then it is expedient to analyse in detail the possible ways of interaction between textual elements and images. The quantitative results Fig. 5 are presented in percentage proportion format.

As the survey has revealed, the semiotic complexity of a graphic game depends on the level of integration of the characters involved, as well as on the role that language and images play in the creation of the comic paper. The analysis shows five different types of word and/or picture games, namely:

- 1) a word game consisting mainly of language signs;
- 2) a word-play reinforced by nonverbal cues;
- 3) a drawing game that depends on multimodal combination;
- 4) a non-verbal sign play supported by verbal signs;
- 5) a symbolic game consisting only of non-verbal elements.

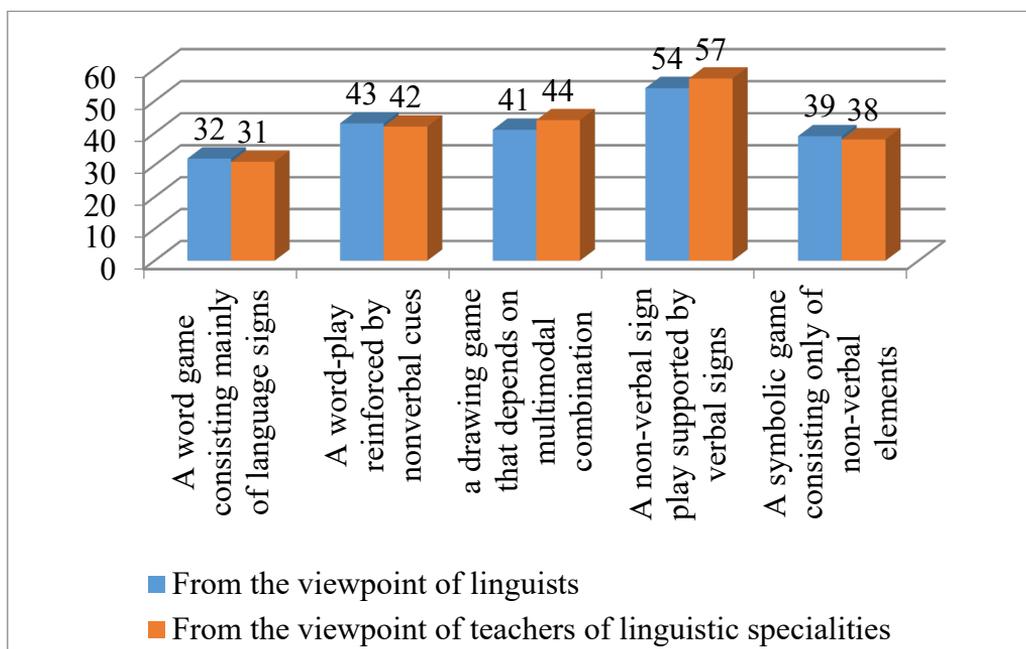


Figure 5. Ways of interaction of textual elements and extralinguistic means in English-language comic papers.

Source: compiled by the authors

Thus, as evidenced by the analysis of scientific literary sources, the combination of means of providing information indicates the integrated nature of the elements of modern comics.

Given that the perception of a comic occurs mainly through the visual channel of reading, visual / graphic design is an important element of reliable perception of information in the text. In the modern text, a significant role is played by the symbolism of writing, which mediates the interconnection between the written design of the text space and the connotative colouring (Mauranen, 2018).

When perceptually considering a comic paper as a visual-graphic text, the reader at the first stage perceives the visible content, and then decodes the information necessary for a comprehensive understanding of the text. Textual content in the form of text is represented using words and phrases, and decoding of information occurs through a perceptual combination of graphic, visual, typological and extralinguistic means complementing the visual content and creating a complete picture of the literary work (Parkhurst & Parkhurst, 2018).

Decoding information from the textual space of an English-language comic paper is an important step in understanding its multimodality. The decoding process is carried out after receiving and extracting information from text fragments. Paragraphemics, as a branch of linguistics, studies the accompanying properties of writing at the level of visual language, as well as the functions of non-verbal means of expression and transmission of information in both handwritten and printed texts (Cavallaro & Sembiente, 2021).

The visual elements of the English-language comic paper perform an informative, abstract function, as well as the functions of supplementing, replacing and duplicating the verbal component, as well as enhancing the expressive and emotional meaning of the language element (De Oliveira & Westerlund, 2021).

The visual element of the comic paper can also perform the function of enhancing the expressive and emotional content of the text fragment. An example of a reinforcing function can be a fragment of a comic paper, in which the silhouette and the use of dark colours in the blocks of the fragment enhance the verbal content with emotional and expressive value (Ukume et al., 2020). Visual elements can serve as a means of expressing the emotions of the characters: joy, anger, sadness, suffering, etc. The function of supplementing verbal elements can be understood in the coherence of verbal and visual elements, in which the image reflects the content of the oral message (Llinares & McCabe, 2020).

Verbal and visual elements are used to identify a character's belonging to a certain culture. The variability of elements of the visual mode, such as colour, font, graphic symbols, is displayed against the background of the textual elements of the English-language comic paper. Verbal elements perform informative, expressive, appealing, contact-establishing, identifying and thought-forming functions (Havard et al., 2019).

The research has also revealed additional functions of visualization tools: in particular, the visual component can not only complement, but also replace the verbal element. This function involves introducing the visual means instead of speech elements, which allow more accurate transmission of information.

A feature of the English-language comic papers is polymodality, or a close connection of verbal and non-verbal elements. Full multimodality in an English-language comic paper is characterized by an informative capacity, the implementation of the complementary function of verbal and visual components, the creation of a coherent content. The most significant manifestation of full multimodality is a verbal block, which has an accompanying character and complements the visual content (Suwastini et al., 2020).

Sometimes there is a partial multimodality in this type of content, characterized by the autonomy of verbal and visual components, as well as functioning at the level of symbols and meanings arousing the reader's interest. The level of partial multimodality is characterized by the predominance of visual content, when the author transmits a message and the reader receives it. The most important feature of partial multimodality is that only under the condition of combining visual and verbal content, the real amount of information conveyed by the comic paper increases (Rakhmawati, 2018).

Conclusions

The analysis of scientific literature and the results of the surveys have shown that all fragments of English-language comic papers are the result of multimodal communication between the author and the reader through verbal and non-verbal elements encoded in sign systems. The presence of multimodal components and their functionality determines the ideological component of a multimodal text.

The study of the English-language comic paper as a multimodal visual text lies in identifying the variety of linguistic and non-linguistic means that the author

introduces into the text space in order to achieve a specific goal in expressing his attitude to reality and the intention of the statement. Fragments of an English-language comic paper (narrative blocks, textual clouds and visual elements) are arranged in a chain sequence that creates a coherent picture of the plots and forms the reader's perception of them. Despite the features of organizing the textual space and the forms of manifestation of the linguistic and extralingual part, the integrity of the content is an essential aspect of the English-language comic paper. Multimodal texts are characterized by communicative value, which ensures the coherence of the message.

Prospects for further research can be an assessment of the deep understanding and philosophy of understanding and explaining the processes that are presented in comics. In addition, it is necessary to evaluate the hidden content, which is presented in the form of images used in comic stories.

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