

Neurolinguistic and Semiotic Film Structure Modelling as the Linguistic Student Engagement Technique

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Abstract

The research paper aims to improve the methodology platform and engage language students. The study's main aim is to optimize the effectiveness of the learning process. Therefore, the authors of the article focused on solving the following tasks: 1) to revise the theoretical linguistic semiotics and lingua didactic approaches to understanding the notion of film/cinema; 2) to design the model of the neurolinguistic semiotics structure of a film; 3) to formulate the practical recommendations for applying the criterion of ecological impact to select authentic teaching video materials; 4) to experimentally prove their expediency. We utilize both general scientific research tools and unique experimental methods. We use observation, description, analysis, synthesis, generalization, and systemization, applied neurolinguistic programming (NLP), and lingua didactic techniques. We use the first group of strategies to formulate the theoretical basis of the work, logical arrangement of scientific facts, expression of conclusions, and qualification of actual material. With the help of the second group of methods, we design a model of the neurolinguistic semiotic structure of the film and experimentally verify its effectiveness in the teaching process. The main results: 1) the range of impact varieties is in the following way: weak degree – persuasion, moderate – suggestion, moderate and considerate – manipulation; 2) symbols are oriented to suggestive impact, copies – to suggestive and persuasion impact, indices – to the ability to actualize all impact varieties, including manipulations; 3) the use of publicist documentaries with persuasive and suggestive elements helps to increase student activity in the classroom. The significance of the work is that its results can be helpful to language teachers in the selecting of educational video materials for students.

Keywords: Copies, engagement technique, film text, impact, indices, lingua didactics, linguistic semiotics, neurolinguistic and semiotic model, publicist documentary, symbols

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Introduction

The educator profession requires constant change, development, creativity, collaboration, communication, and critical assessment, the main components of change being “innovation and critical reflection” (Pennington, 1995, p. 720). The awareness of a need to change and adapt constantly is the condition of context – interactive involvement. There are two reasons for this: today’s global events (e. g., spreading the information and the Internet technologies, highlighting the development of soft skills in higher education on the one side, or the COVID-19 pandemic covering the world on the other) and national events (e. g., hybrid information war here in Ukraine starting in 2014).

Expansion of information and communication technologies involving the unlimited application potentialities of interactive devices and gadgets (Reddy, 2008), on the one hand, and expressive psychological techniques, on the other, for optimizing language teaching, particularly in higher schools, has opened up new horizons for selecting more relevant teaching sources (Dale, 1969). In the seventies, Dale estimated that – “learners will generally remember 10 percent of what they read, 20 percent of what they hear, 30 percent of what they see, 50 percent of what they hear and see” (p. 105). At the beginning of the 21st century, Lachs, Pisoni, and Kirk stated that “children tended to score higher on measures of audiovisual gain, especially video” (p. 238). Since then, we have witnessed the routine practice of considering integrated audio and visual authentic materials as the integral methodological component. It means using visual sources intended for native language speakers that integrate visual and acoustic content of linguistic and extralinguistic information about the various spheres of the social life of other language speakers (Shcheblykina, Pogorelov & Dragica, 2020). The experience of applying authentic video materials for teaching has enabled us to determine their efficiency. In addition, science already has algorithms for use, typical tasks, and exercises to introduce them into higher school teaching practice (see works Allan, Aris & Cakir). In their various formats, these materials can provide a wealth of linguistic and conceptual content to learners focused on specific applications of their linguistic skills. Methodologists and educational technologists have also developed the criteria for selecting authentic video materials for lectures and practical classes, emphasizing the fact of the necessity of their strict filtration: video duration, current validity of its content, relevant language complexity, variability, information value, genre expediency, coordination of acoustic and visual sequences and recording quality (Shcheblykina, Pogorelov & Dragica, 2020).

However, there is one criterion that remains negligible, which is the level of the ecological impact of authentic visual materials. The potential threat of a significant number of documentaries is characterized by high-quality technical performance but containing pathogenic texts, their semiotic structure containing the mechanisms of self-production and self-distribution (Potyatynyk, 1996). Therefore it turns out that it is necessary:

- 1) to simultaneously integrate the paradigms of linguistic semiotics, suggestive linguistics, and neurological linguistic programming, there being powerful impact phenomena for the research;
- 2) to model the film’s neurological and linguistic semiotic structure for further determining the recommendations: how to apply the ecological impact criterion while selecting authentic video materials.

Currently, studies are available that demonstrate the cognitive model of semiotic cinema language.

The article aims to develop the neurological, linguistic, and semiotic model (NLSM) based on analyzing the film structure, implying the selection criterion of ecological impact, particularly for training applied linguists.

Literature Review

The notion of film and cinema

The notion of ‘cinema’ is known to be polysemantic both in English and Ukrainian. Its definitions are synonymic and differ due to the parameter of generalization or concretization. In general, ‘cinema’ is a “universal synthetic art which unites the properties of other arts – literature, theatre, painting, music, photography” (Ratushnyak, 2012, p. 190). In its narrower meaning, it is the same as film. These definitions are standard for linguistic and didactic research (Ihebuzor, 2015; Dirkes, 1985). But semiotic study usually uses generally the notion of cinema text. It means “the product of a chain of nonuniform semiotic systems (oral and nonverbal) which are interconnected using specific cinema codes (foreshortening, a short, light, plan, plot, art space, editing, etc.)” (Vinnikova, 2010, p. 32).

Semiotic signs and language representatives

In this publication, we focus on the verbal organization of cinema discourse because concentrating on the visual components and disregarding the verbal ones result in ambiguous comprehension of cinema discourse (Kozloff, 2000).

We also refer to Ch. Pierce’s (2000) classification of signs (indices, copies/icons, symbols) (p. 104) because it seems its relevance for linguistic and semiotic studies of cinema discourse has already been proved (see works Woolen, 1976).

Language icons are the signs that demonstrate the liveliness between the form and the content, e.g., a portrait. The vivid examples of language icons/copies are: a) the lexemes presenting the semantic field of visual reception: *He is observing, and what he sees troubles him* (Orange Revolution: sharp corners of round tables); b) metaphors: *We opened horizons and for the young people to travel, achieve, study at home and abroad, and today it is easier accessible* (Ukraine: the evolution of dignity), *The President defended his decision to abandon the talks* (The USA today); c) repetitions, parallel constructions: *We have so many friends, we have so many acquaintances, there are thousands of them* (Year of Zelensky’s presidency); d) speech styling: *Due to mentality, customs and traditions English sounds like English* (The English National Character).

Indices demonstrate continuity (nearness in time or space). They are intonation, interjections, personal, adverbs, proper names, grammar indications, citations, intertextual references, and parenthesis. They emphasize the index nature of a particular speech component: *Liverpool is once a vital port and the home of the Beatles* (Window on Britain).

Symbols are language signs which refer to the signifying object, usually associations of general ideas to persuade us to interpret the symbol as a reference to the object (Pierce, 200). The language

symbols present the lexemes, which nominate the value hierarchy levels: *Nobody would believe that Philaret could create the new Ukrainian church, which would have the majority of followers. However, it has the only Bishop who has not betrayed him* (Tomos for Ukraine).

The top-priority sensitizers of impact effects as linguistic and semiotic elements of cinema discourse are expressed primarily by icons. They are in the right brain hemisphere. It is causing a more significant suggestive impact on a personal psychic sphere. It relates to reducing the level of critical evaluation of the text either at the stage of its reception or production (Petryk, 2020). The predicates, for example, lexemes expressing seeing, make it possible to mark and foreground these suggestive representatively. As Kovalevs'ka (2008) states, "the application of particular sensor-marked words is the personal characteristics of person's representative system, the ability to determine them via verbal expression and using them in real communication can optimize and enhance the resulting communicative impact" (p. 202). Moreover, icons are the words and phrases which excite the neurological and linguistic process of omission, leading to the exclusion of some significant components of the deep structure from the surface representation. They are the words the reduced referential index, for example, *You start speaking with a person, you believe that the person came with a good project for the state, but some very many people are 'rotating' in politics, who are working for their own sake, only for their own sake* (Year of Zelensky's presidency). Language icons are present by repetitions and metaphors, express persuasion or argumentation, and are used to influence the audience, especially in English cinema discourses. Thus Haydanka (2018) states that "the most frequently used words expressing arguments and disagreement are metaphors" (p. 94).

We also use language symbols to express suggestive impact. Their verbal representatives belong to the category of not specific nouns or their derivatives. In addition, "their specific semantics enables to express the vector variety of perceptive definitions" (Kovalevs'ka, 2008, p. 204). As a result, we have the neurological and linguistic process of omission: *People stopped feeling fright, they started feeling freedom* (Ukraine: the evolution of dignity), ‘

However, there are many cases when symbols can also generate neurological and linguistic processes of misinterpretation. They also "represent the hypothetical verbal models of the environment with the components without identified in their preliminary experience" (Kovalevs'ka, 2008, p. 205). They are in, for example, thought-reading contexts: *You know I believe that there will be a government for the people* (Year of Zelensky's Presidency).

Indices are known to result in poly vector impact. Firstly, they generate the suggestive impact 1) by directives: *Put up the photos of your children and look into their eyes before making every decision* (Year of Zelensky's Presidency) or 2) by indefinite pronouns which identify semantic diffusion. In this case, we have the omission process.

Secondly, they tend to implement manipulative impact, which results in compromising (practically in every case), retrieving the recipient's attention (achieved by information), and modeling some particular opinion of a recipient. Primarily this impact-oriented information is revealed in the contexts which contain the names of countries and the names of cities and is semantically connected with these lexemes: *Never forget what the cost of Ukraine's sovereignty*

was (Kruty 1918). In these cases, ‘the sensation of patriotism, pride, and love for your native land is manipulated’ (Kutuza, 2018, p. 112). However, explicit manipulation disappears due to appealing to the national identity of the addressee. Similar impact vectors characterize the contexts which contain numerical information.

Thirdly, indexes can also function as a kind of infection, having a psychological influence on the personality in communication and interaction. It conveys particular moods, imperatives via emotional but not via intellectual sphere (conscience, intellect) and a kind of imitation as the means of the adoption of the social traditions, as the mechanism of conscious and subconscious reproduction of actions of another person (the subject of psychological influence). It is about some intertextual references and citations that mainly appeal to well-known film best-sellers. It causes a priori positive or negative attitude to a new cinema product and persuade the addressee to watch it again.

Methods

The sources comprise the bank of 10 publicist documentaries of 8-hour duration in English and Ukrainian released within 2019–2020 and taken from YouTube video-hosting because with more than one million pages of information added every day the Internet is indispensable to any researcher, and instructor looking for specialized content. There are:

- 1) “Orange Revolution: Sharp Corners of Round Tables”
- 2) “Ukraine: The Evolution of Dignity”
- 3) “Year of Zelensky’s Presidency”
- 4) “Air Warriors”
- 5) “Tomos for Ukraine”
- 6) “Kruty 1918”
- 7) “The USA Today”
- 8) “The English National Character”
- 9) “Window on Britain”
- 10) “Walles”.

The factual material includes about 3500 linguistic, 5000 extralinguistic units, and 58 oral, and textual responses from the experiment respondents (students). In selecting the suitable materials, we considered at least three fundamental aspects of learners’ backgrounds: linguistic, abstract, and cultural-linguistic background helping the selection of tasks and their sequencing, conceptual or knowledge background determining the need for general or specific nature of information, cultural background affecting the efficient learner-teacher interaction.

The aim, tasks and complexity of the integrated research provided for the necessity of applying a number of general and special linguistic methods, the former being presented by the methods of observation, description, analysis, synthesis, generalization to highlight the logical nature of the research, systemization of the selected material, the qualificative way implying classification to distinguish linguistic semiotic signs in film text structure, modelling to understand how to design the NLS model of the film structure, the quantitative way to determine students’ activity during the experiment, and the latter being presented by the method of structural and semiotic analysis to determine the linguistic and semiotic status of the research object components, Milton-model identification method and the method of predicate technologies which are used in neurological and

linguistic programming, the practice of contextual and interpretations analysis to state the interdependence between the linguistic, and semiotic structural element and its impact potentialities. Moreover, we use the linguistic didactic methodology of experiment teaching.

Results

Model of the neurological and linguistic semiotic structure of the film

All the above enables to the design of the NLSM film. We believe this model can promote a deeper comprehension of the film's impact on the audience.

There are already attempts at communicative impact modeling. Thus, Kovalevs'ka (2008) showed how to model empathy applying NLP methods.

While modeling the impact potentialities of linguistic and semiotic components of cinema discourse, we have based our research on the theory of brain interhemispheric by American neuropsychologist Sperry (1980). Scientist states that the hemispheres are responsible for various functions. Still, each can acquire knowledge (to learn) (Sperry, 1980). These ideas enable to construction of the network demonstrating the neurological, linguistic, and semiotic model of cinema discourse (See Table 1).

Table 1. Neurolinguistic semiotic model of film structure

Left hemisphere	Right hemisphere				
	<i>Persuasion</i>	<i>Suggestion</i>	<i>Manipulation</i>	<i>Infection</i>	<i>Imitation</i>
<i>Iconic signs</i>					
Metaphor Repeat	Visual predicate Stylization	–	–	–	
<i>Indice sign</i>					
–	Exclamation Pronoun Verb Adverb Proper name	Numeral	Quote Intertext	Quote Intertext	
<i>Symbolic sign</i>					
–	Nonspecific noun	–	–	–	

Thus we could conclude that documentaries that are potentially valid for instruction (in our case, for teaching applied linguistics students) are those in which copies (metaphors and repetitions) and indices (conjunctions) prevail. To some extent, it does not seem relatively reasonable to offer films with suggestive signs. Films with evident manipulation in their structure are not somewhat influential for our purposes. The manipulation aim is quite apparent: a manipulator (a subject) “makes his profit” and “harm to an object” (in our case, a student who is watching this film) (Kutuza, 2018, p. 289). Other right hemisphere-oriented impact varieties are to block critical perception/comprehension of information.

Experiment

The experiment to verify the theoretical conclusions we conducted in March and April 2021. The comparison of the results obtained was the basis of the investigation. Therefore we selected

two experimental groups of second-year students. They study Philology (Applied linguistics) and have identical academic progress. Group 1 (14 persons) watched movies of lower and moderate impact producents. Group 2 (15 persons) watched movies of higher-level producents.

The tasks were as follows:

- 1) to watch the documentary;
- 2) to answer the teacher's questions referring to the content (who, what, when, where);
- 3) to evaluate the ideas of the filmmakers.

The results revealed that:

- 1) the respondents from Group 1 were able to give more detailed and substantiated responses than their counterparts from Group 2;
- 2) there were fewer pauses between the teacher's questions and students' answers in Group 1. On the contrary, it took some time for students from Group 2 to think over and formulate their answers;
- 3) the students from Group 1 practically did not use emotional markers. The responses of students from Group 2 were marked by high. The students from Group 2 argued and discussed.

Recommendations

There are some recommendations for teachers to consider. We received the following conclusions from using this classroom task-based project:

1. *Managing time constraints.* It makes sense to prepare the class earlier to use students' functional skills necessary for critical perception. It would also help students practice more essential tasks of thinking based on the model discussed, including brainstorming. In addition, setting more clear deadlines for the functions can manage time more efficiently.

2. *The validity of the evaluation.* The teacher must inform the students that the review is in progress. It does not just occur at the end of the activity: students need to note possible patterns, categories, and relationships emerging from the information. Finally, students should be able to apply the acquired skills by analyzing of the other documentaries on identical issues.

3. *Group members' participation.* As with many cooperative classroom activities, all students do not obligatorily work equally. Therefore it is necessary to monitor their work in class, keeping in mind that there are learners who are less inclined to get involved in critical thinking perception of any real-world context; they give more preparatory tasks. Still, the experiment showed they also strengthened their essential thinking capabilities when applying the model.

4. *Select relevant topics.* The content is specialized (burning, topical domestic, international, urban, rural, political, economic, and cultural issues). Therefore, it is essential to offer students a choice of topics for further activities to stimulate their interest and solicit their ideas, thus increasing the benefits. The teacher can suggest the following topics: future career, entertainment choices, hobbies, study habits, work challenges, and experience.

5. *Model application.* It is also essential to broaden the potentialities of the model application by involving students in filling the structural scheme with all oral elements in English and Ukrainian.

Discussion

Their efficiency is high. The authentic video materials, when used for teaching, demonstrate complete scenarios which represent inevitable sociocultural reality, context, and communicative

situations verbally and nonverbally. It causes certain emotions and feelings, consequently promoting students' skills of comparing, analyzing, and concluding. Original documentaries are a tremendous resource not only for developing linguistic competence (listening, speaking, writing, and reading skills) or sociocultural competence but, what is highly significant, for creating some skills of critical perception of the information.

Conclusion

We have tried to emphasize the importance of considering the neurological, linguistic, and semiotic structure of any information from cinema text. We have chosen documentary film content as the platform for developing this kind of analytical skill.

The experiment showed a considerable increase in the activity for the control group of students.

Therefore, the designed neurological, linguistic, and semiotic model of the film structure can be used as the platform for practical application in training philology students, adding it with the nonverbal film components.

The manuscript is an original work.

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