

<http://dx.doi.org/10.16926/p.2025.34.11>**Ján JASIČ**

Department of History and History Didactics, Faculty of Education, Comenius University
in Bratislava, Slovakia

jasic1@uniba.sk

Author contribution: 80%

Filip LOPUCH

Department of History and History Didactics, Faculty of Education, Comenius University
in Bratislava, Slovakia

Author contribution: 20%

lopuch3@uniba.sk

Cartoon as a tool for teaching 20th-century history: deciphering and interpreting

Abstract

The paper focuses on the theoretical definition and analysis of the possibilities of using historical cartoons as a didactic tool in history teaching. It is based on the assumption that the cartoon, as a specific type of visual historical source, promotes the development of critical and multiperspective thinking of learners, while allowing original interpretation of historical contexts. Its expressive language, built on symbolism, hyperbole and visual abbreviation, provides a space for grasping complex topics in an accessible and motivationally effective form. The analysis focuses on the didactic potential of cartoons, their functional possibilities and the benefits and risks in conveying historical content. Attention is also paid to the typology of cartoons, their stylistic and semantic structures, as well as their effect on the cognitive and affective level of learning. The study includes reviewing related literature and identifying research gaps in the Slovak environment. The paper also presents the theoretical background for broader research with applied outcomes, which is carried out within the framework of the dissertation.

Keywords: cartoon, history education, visual aids, literature review, qualitative research.

Introduction

“A picture is worth more than 1000 words.”

Nowadays, history of education is increasingly emphasising the use of visual sources, which can enrich teaching with new perspectives and forms of pro-

cessing historical topics. Cartoons, as a specific type of visual material, represent a tool that promotes active learning and learner engagement. Properly integrated into the teaching process, it can facilitate understanding of historical contexts and foster interest in the subject matter. Even though there are many studies dedicated to cartoons in education abroad, in the Czech and Slovak environments, this issue remains relatively understudied. This fact was one of the primary impulses for the realisation of the present study.

The main aim of the paper is to provide a theoretical framework for the use of historical cartoons in the teaching of history with a focus on the 20th century. The text offers an overview of the current literature on the didactics of history, visual sources and the pedagogical potential of cartoons, identifying key approaches, terminological definitions and research trends. It also aims to highlight methodological shortcomings and research gaps in the domestic setting, particularly in the area of qualitatively oriented research.

The paper also outlines possible directions for further research, such as exploring learners' reception of cartoons, their interpretive potential, or usability within different didactic strategies. The paper also includes a proposal for a thematically arranged selection of historical cartoons together with a proposal of didactic approaches to their analysis and pedagogical use.

In the analysis of the available literature, it turned out that the use of cartoons in teaching history in the Czech and Slovak environment is mainly quantitative, while deeper qualitative approaches are lacking. This suggests a potential research direction that could enrich the knowledge of future pedagogical use of visual sources. The paper therefore offers a theoretical starting point that points to the possibilities of further exploring how learners interpret, perceive and understand cartoons in the context of teaching. The insights thus gained can serve as a basis for designing further research projects focusing on qualitative methodology.

Methodology

This paper characterises a theoretical study, aiming to reflect on the didactic potential of historical cartoons in teaching history in the 20th century. It is founded on a thorough analysis of the relevant literature in the fields of didactics of history, visual pedagogy, multimodal learning, and the use of pictorial sources in education. In particular, the focus is on research and theoretical approaches that explore the functions, benefits, and limitations of cartoons as a tool for developing critical and multi-perspectival thinking.

The presented study is based on a systematic literature review. To ensure the relevance and academic quality of the sources, a purposive search strategy

was adopted using targeted keywords. The most effective search terms, yielding the highest number of relevant academic results, included: cartoon, caricature, visual aids, history, and education. These keywords were combined using Boolean operators (AND, OR) to refine and narrow the search focus.

The search was carried out across several academic databases. Open-access platforms such as JSTOR, ResearchGate, and Academia.edu were used to obtain publicly available literature. However, most peer-reviewed sources were accessed through the CVTI (Slovak Centre of Scientific and Technical Information) university portal, which provides institutional access to licensed academic databases, including Taylor & Francis, SAGE Journals, and others. These platforms were crucial for obtaining scholarly publications not freely accessible to the general public. Sources chosen for in-depth analysis were based on their academic credibility, methodological clarity, and direct relevance to the topic—specifically, the didactic use of visual media (with an emphasis on cartoons) in history education. Sources that were outdated, duplicated other works, or focused on only marginally related topics were excluded.

During the review process, a relevant sub-theme emerged regarding the use of cartoons in education for students with special educational needs (SEN). Although this area presents significant implications for inclusive pedagogy, the related findings were presented by the author of this paper separately at the doctoral conference DOKOPY (Prešov University, November 2024) and were intentionally excluded from this paper to avoid content duplication and maintain a clear thematic focus.

The methodological approach in this study therefore relies on the systematic collection, classification, and interpretation of expert knowledge, aiming to construct a theoretical framework that supports further pedagogical reflection and application. The findings from selected studies are synthesised and interpreted in light of current trends in history didactics. The objective is not to empirically verify hypotheses but to provide an analytical and conceptual reflection on the current state of knowledge, along with directions for future research.

Given the interdisciplinary nature of the topic, the study draws on knowledge from pedagogy, history, media studies, and semiotics. The result is a theoretically grounded framework that can serve as a basis for future qualitative research, particularly regarding learners' perceptions and interpretations of cartoons, or for applied studies related to their practical didactic implementation in the history classroom.

The role of historical cartoons in teaching history

Nowadays, the visual perception of information is a more important tool in a person's life, especially for young people. Visual information is gaining more

and more importance, and this requires new approaches to teaching. In the teaching of history in particular (Haward, 2020, p. 365). The cartoon is the type of historical pictorial source that is an important part of learning and understanding history.

A cartoon can be perceived as a visual commentary on various social and political events. Its main features are mockery and exaggeration. In this way, the cartoonist tries to capture the essence of the issue and uses humour to influence the reader to accept the information that the author presents uncritically (Kratochvíl, 2014, p. 3). Cartoons can be an effective teaching material because their analysis allows learners to better understand the views and attitudes of people in the past on various social and political issues. However, it is always important to remember that this is a distorted image of the cartoonist and not objective information. The content of such a cartoon is conditioned both by the author's personality and (usually hidden) agenda and the social context of the time in which it was created. The cartoon captures the essence of the issue as concisely as the text, so the learner does not have to look for it in the text but can extract it from the image. In this way, learners learn to deduce historical meanings from impressions. Just as reading a text requires a certain level of reading literacy for a learner to comprehend the text, so it is with a cartoon. Here it is necessary to ask the right questions by means of which individual cartoons can be properly analysed and critically evaluated. Thus, cartoons push the reader to actively use already acquired knowledge in new contexts. It is a valuable tool when repeating or looking at an already known problem from a different point of view. However, the reader must already have the knowledge necessary to analyse the pre-acquired (Kratochvíl, 2014, p. 4).

Cartoons fulfil two different purposes simultaneously. One is to entertain, and the other is to inform the audience. At the same time, they draw the public's attention to a particular social problem, event, or social trend. In this way, they can be analysed and criticised by a given public. In some cases, public opinion can be altered into the desired form as this information is presented to the people in an engaging and accessible way (Nuñez et al., 2018, p. 143).

Most previous research on cartoons in education has used quantitative methods to examine their impact on learners' knowledge and motivation (Al-Araimi et al., 2018). However, for a more comprehensive understanding of learners' perception of cartoons, a qualitative methodology seems more appropriate, allowing for a deeper exploration of their interpretations and attitudes. Currently, student-centred learning is increasingly coming to the fore. The focus is no longer on the teacher but on the learners and their needs. Qualitative research is, therefore, the most appropriate way to obtain the necessary information to improve teaching and adapt it to students' needs (Biggs, 2011, p. 8). Learning, if it is to be effective, should not just dryly transform information from

textbooks into learners' heads. Instead, it should force young learners to think critically and creatively precisely by engaging directly, practically and experientially in the teaching process and becoming active participants in the classroom (Efendi, 2023, p. 223). Teachers who want to motivate their students in this direction seek ways to make learning experiential and engaging. Visual material is ideal for just that. By didactically applying it to the teaching process using a specific methodology, we can improve students' learning (Bickford, 2016, p. 6).

Cartooning can be a stimulating element in teaching if it is appropriately integrated into the learning process. However, learners' motivation depends on several factors, including the didactic approach of the teacher and the context of the use of cartoons. Not all students perceive cartoons as motivating, so it is important to adapt their use to the specific learning environment. As a teaching tool, cartoons increase learners' interest in the subject matter and intrinsic motivation while reducing boredom, stress, or anxiety (Heitzmann, 1998, p. 8). Cartoons can support the development of critical thinking when used in structured analysis and discussion. However, the mere presence of cartoons does not guarantee the development of this competence. Their effectiveness depends on the pedagogical approach and the teacher's ability to lead students to a deeper interpretation of the content. The use of appropriate interpretation also helps to clarify complex concepts, to bring humour (Moroz, 2015, p. 245) into the learning environment and, to some extent, to promote critical thinking skills (Cardillo, 2016, p. 228; Shabiralyani & Hasan, 2015, p. 228).

Incorporating cartoons into history education is not always without problems. Teachers need to invest time in selecting relevant cartoons and designing lessons that effectively use their teaching potential. The latter is important as we live in an era of digital media. Teachers, and with them students, need to navigate the complex issues of manipulation and misinformation on social media and ensure that students develop the necessary skills to distinguish fact from fiction (Baumgartner, 2008, p. 740).

Cartoons as a visual aid in teaching

A cartoon is a visual medium offering a humorous element that can be contained in one or more related images, with or without text. They can be found in magazines, newspapers, books, and television, as well as in professional literature or on the Internet. Historical cartoons depict opinions and attitudes, but the cartoonist is mainly dissatisfied with the phenomenon he ridicules. Therefore, the perspective and tone of the cartoon reflect the author's overall view of the topic. The author takes a resolute standpoint with his drawing and, at the same time, tries to show the given perspective to the reader (Nuñez et al., 2018, p. 149).

Another important feature of cartoons is symbolism. For this reason, the reader must have a certain amount of knowledge and be able to identify and understand specific symbols correctly. When covering more complex topics, texts and captions are necessary so the reader has something to fall back on (Valter, 2014, p. 85). Symbols used in cartoons can reflect people's meta-images. While Russia is depicted as a bear, China is depicted as a dragon and Germany as an eagle.

Stereotypes are another feature of cartoons. The complicated situation is thus depicted quite clearly. The rich man used to be a fat man with a cigar and whiskey. Stereotypes, however, were often misused for propaganda, for example, in the portrayal of Jews. Historical cartoons are thus an important primary source as they represent the authentic views of ordinary people at the time.

The creator of cartoons, the so-called cartoonist, must also have a particular artistic talent, thanks to which he is able to describe some aspect of society in a graphic form, while exaggerating and drawing attention to elements with which he is not satisfied. Cartoonists use hyperbole or exaggeration of a particular characteristic of a person, thus catching the reader's attention with humorous content at first glance. Often, a cartoon dares to say something people would not dare to say out loud. However, not all cartoons are necessarily comical. They are also great at dealing with negative emotions such as fear, distrust or disgust. These cartoons have often been used to condemn marginalised sections of society.

One of the other characteristics of cartoons is the ability to summarise extensive information with pictures and drawings that would cover a considerable area in a text, whether in newspapers, magazines or other media. It is thus a concision that is typical of this visual medium. In addition to informing the reader about a particular issue, it is also quite effective in breaking down the issue in depth and criticising it. Historical cartoons were and are another cryptic type of text, waiting for the reader to be made aware of the reality around them (Nuñez, 2018, p. 149).

The origin of the word caricature is not entirely clear. One of the many definitions speaks of the Italian word "*cartone*", which means hard paper; from this is derived the Slovak name carton. Another meaning is again in the word "*cari-care*", which means to load, overload, exaggerate, or exaggerate.

Types of cartoons

According to the content, cartoons can be divided as follows (Valter, 2014):

Political cartoon: A cartoon that focuses on a particular political event, personality or political situation. It is often used to comment on current events in politics and express the author's criticism or opinion. Political cartoons can be highly satirical and often use exaggeration and simplification to highlight certain aspects of political life (Valter, 2014, p. 85).

Social cartoon or satire: This type of cartoon also deals with political events and their impact on society as a whole. However, it also covers other aspects of social life such as culture, economics, interpersonal relations and other topics. Social cartoons often use humour and satire to highlight social problems and shortcomings (Valter, 2014, p. 85).

Humorous cartoon: A cartoon that deals with the humorous depiction of common situations in people's lives. This type of cartoon aims to provoke laughter and lightness without a specific political or social context. It may or may not include text (Valter, 2014, p. 85).

Poetic cartoon: The aim of this type of caricature is to subtly caricature/mock various phenomena and situations without an explicit humorous context. It may be without text or may contain a minimum of text. It is often used to convey subtle humour or an observation about life and its absurdities (Valter, 2014, p. 85).

Portrait cartoon: A cartoon that focuses on the depiction of famous or lesser-known personalities through their portraits. These can be politicians, cultural figures, or ordinary people. Portrait cartoons may highlight and ridicule the characteristics and qualities of the person portrayed. Often, this format is seen in street artists (Valter, 2014, p. 85).

Philosophical cartoon: This kind of cartoon deals with the problems of human thinking, behaviour and the fundamental questions of existence. It does not serve primarily to provoke laughter, but to amuse and reflect on deeper themes. It is often intertwined with serious art and may contain subtle messages and symbolism (Valter, 2014, p. 85).

Promotional cartoon: A cartoon that is used in the promotion of a product, service or idea. This type of cartoon is often used in advertising campaigns and marketing materials to attract attention and communicate with the target audience. On the other hand, its negative use is in state or ideological propaganda when it is necessary to shape collective thinking for the regime's current needs. A promotional cartoon can combine humour and creative expression with the message being promoted (Valter, 2014, p. 85).

Advantages of cartoons

Cartooning as a learning tool increases learners' interest and intrinsic motivation while reducing boredom, stress, or anxiety. Moreover, it captures the learner's attention and arouses interest in learning (Twark, 2016, p. 177). Various publications have addressed the relationship between students' knowledge and their ability to analyse cartoons correctly (El Refaie & Hörschelmann, 2010; Çifçi & Kaplan, 2020; Al-Araimi, 2018). In history classes, the condition of decoding is fulfilled by the students' knowledge acquired primarily during their stud-

ies. The centre of satire is usually a person and the problems caused by his/her actions; that is why historical cartoons are most often used in teaching (Čapek, 2015, p. 102). This type also encourages the reader to be interested in the geopolitical situation because on this basis stands the correct analysis and understanding of the encrypted cartoon. Thus, working with a cartoon presents a convenient way to find out which issues and themes are most troubling for a particular reader (El Refaie & Hörschelmann, 2010, p. 196).

The cartoons are entertaining, visually appealing material that provides the reader with a unique experience. These qualities make them a versatile tool with which a teacher can easily reach any student (Wyk von, 2011, p. 119). All the more so because young people are exposed to various visual stimuli and media from an early age. Thus, they can receive the visual information of cartoons better and more openly. Although today's teenagers are more literate in visual information processing than their parents, given their fixation on digital technology, this apparent advantage may not imply an improved ability to evaluate cartoons (El Refaie & Hörschelmann, 2010, p. 199).

However, a cartoon's main task is not only to entertain the reader but also to influence him or her to have an opinion similar to the cartoonist's idea of a cartoon. Thus, properly adjusted decoding can alert the reader to manipulation. It can be said that the cartoon was one of the early attempts to subconsciously manipulate the public using humour.

Cartooning as a visual learning tool can be interpreted by readers in various ways, using their unique imaginations. This approach helps the teacher foster imagination in students while creating and developing relevant knowledge (Minárechová, M., 2017, p. 20). Learning through cartoons can be beneficial in initiating debates or group discussions in the classroom. It stimulates and forces readers to use critical thinking skills to evaluate and articulate their opinions and perspectives on a given topic. Thus, students are given the opportunity to participate in class discussions, present their own ideas, and explore other classmates' views on a common topic (Anderson, 2001, p. 55). Cartoons are thus an ideal tool for identifying and guiding misconceptions. However, this is only possible with the help of appropriately chosen questions by the teacher, who can thus uncover the reasoning behind these misconceptions. Moreover, a well-chosen visual aid will help learners reflect on their thoughts, solve problem-solving tasks or broaden their horizons and view events from a broader perspective, thus improving their analytical skills. The many meanings, symbols, metaphors or humour that are thus visually presented allow learners to step out of their comfort (conventional) zone and explore the processes of seeking truth and knowledge (El Refaie & Hörschelmann, 2010, p. 197).

The advantage is that the concept is universal and can be applied to any subject in the school curriculum, not just history. However, history is the ideal sub-

ject to use cartoons as it contains many controversial topics. These provoke different perspectives on one issue. It is a skill such as multiperspectivity (Kratochvíl, 2019, pp. 108–109) that is needed to work with such material. It is in deciphering that the teacher's skill of asking well-chosen questions is most evident, so that he or she is able to foster multiperspectivity in their students.

Cartooning is an ideal teaching tool across the age spectrum. Even primary school pupils are better able to understand the lesson's topic thanks to it. Likewise, they can better understand the teacher's thoughts and ideas related to the topic. This teaching method is already suitable for the youngest pupils during their first contact with history, which takes place mainly in the form of history propedeutics. One of the reasons for this is that by deciphering and analysing the cartoon, pupils may not notice that they are learning. Moreover, working with cartoons promotes social skills as pupils are motivated to interact with each other.

Disadvantages of cartoons

When using cartoons in the classroom, it is always necessary to adapt to the approximate knowledge level of the learners for whom it is intended. When teaching foreign languages, the rule is that the content should be one level higher than the level of current knowledge. The same applies in this area. It is appropriate to challenge learners. Even with easier-to-understand cartoons, the teacher can, with the right questions, guide students in looking for the signs, symbols, and connections that are needed for correct analysis. The teacher is always a necessary and indispensable element in this process. Without it, such teaching is not possible, and if students analyse cartoons without professional supervision, they might draw incorrect or socially undesirable conclusions from them. The degree of participation of the teacher in such decipherment is directly proportional to the difficulty of the visual material used. Cartoons with overly complex symbolism or complex historical context may be difficult for learners to interpret, which may lead to a loss of motivation (Haward, 2020, p. 375).

It is, therefore, important to select appropriate visual materials and support them with interpretation or accompanying questions to aid analysis. A similar situation occurred in Research (El Refaie & Hörschelmann, 2010, p. 205) in 2010 when some of the cartoons used were beyond the students' capabilities. And precisely because of this, students were unable to decipher their meaning correctly. Since cartoonists are fond of using symbols, metaphors, metonymy or irony, these concepts require sophisticated thinking to understand them correctly. Therefore, when using them in the classroom, the teacher must also consider the cognitive readiness of his/her students.

Theoretical and empirical background

This part aims to map the current state of knowledge in the field and to identify how cartoons can influence the process of teaching history. In order to make the analysis clear and understandable, the research is divided into thematic categories. These categories are based on the main aspects in which cartoons can influence learning – from their general effectiveness in pedagogical experiments, to their specific use in history, to their role in developing critical thinking or the potential risks of manipulating historical facts. Emphasis will be placed on those findings that are most relevant to this paper.

Effectiveness of cartoons in education

In Srinivasalu's study (Srinivasalu, 2016), the research focused on the use of cartoons and their effectiveness in education in the form of where a pedagogical experiment was conducted. The results yielded a statistically significant difference in both control and experimental groups. However, the experiment was conducted on a sample of pupils, 25 in each group, which was too small for the results to be reliable. The difference in results as measured by quantitative methodology through tests and follow-up retests between the control and experimental groups was 5 % in favor of the experimental group. The research also showed that younger pupils are more open to working with pictorial material than older ones. Students' interest in working with cartoons was also investigated in a study from the University of Cyprus (Theotokatou, 2016, p. 8). It found that students found it beneficial to work with cartoons in history lessons and were happy to be actively involved in deciphering them. This study investigated mainly the affective side of the relationship between the learners and the method used. According to its results, learners would welcome more pictorial materials in the classroom in the future.

Quantitative research was conducted in Southeast Asia to consider the effectiveness of cartoon use in children. This cartoon was intended to raise awareness of social problems of the population, especially children. Between 1991 and 2002, several studies were conducted over a period of 11 years on a sample of over 10,000 respondents (Mckee, 2003, p. 348). The results showed that cartoons facilitated important debates about current issues in the area. In particular, this benefit has been demonstrated in education, where it has stimulated primary school pupils to be more active in the classroom. This research has shown the effectiveness of visual aids used in the school environment in shaping appropriate behavioural patterns (Mckee, 2003, p. 348).

Mahmoudabadi and Nadim (2020) conducted a quasi-experimental study on a sample of 90 students from Yazd Payame Noor University to investigate the

effect of cartoons on learning motivation and satisfaction. The participants were divided into two groups – 49 students were taught using cartoons in PowerPoint presentations and teaching materials, while 41 students were taught using the traditional lecture method. Mac Innnerni and Sinclair questionnaires were administered before and after teaching to measure learning motivation, and the results were analysed using t-tests, the Wilcoxon test, and the Mann-Whitney test.

The students in the cartoon group achieved a significantly higher increase in motivation compared to the lecture group. The mean score of learning motivation in the cartoon group increased from 44.18 to 47.33, while in the control group the change was only between 42.51 and 45.82. Intrinsic motivation increased from 25.99 to 38.41 in the cartoons group, while it only increased from 27.84 to 31.21 in the control group. Satisfaction with the teaching method was also significantly higher in the cartoons group (mean score 73.33 versus 58.11). The authors conclude that the visual elements and humour contained in the cartoons promote a better understanding of the material, retention of attention and create a more interactive learning environment. This study provides empirical evidence of the positive impact of cartoons on learning and supports their use in history education, where they can also aid in the analysis of historical contexts and the development of critical thinking.

Cartoons in history teaching – analysis of their use

Several projects have been carried out in Slovakia and the Czech Republic, which partially dealt with the issue. Among such works is, for example, Petra Milánová's diploma thesis (2020) *The didactic use of cartoons from the World War II period*, from 2016, which had the task of creating a worksheet on the thematic unit World War II. The author explains that using cartoons allows teachers to create dynamic lessons that resonate with learners of different age groups and subjects. The visual representations that cartoons provide not only capture historical perspectives, but also capture the essence of complex issues in a concise and memorable way. In history education, cartoons offer readers a unique lens through which to examine and understand past events and social attitudes (Stradling, 2002; Oňušková & Bačová, 2015).

Metodika výuky historie na 2. stupni základních škol a středních školách z pohledu pedagogické praxe – náměty pro začínající učitele (Gracová, et al. 2009) from the Czech Republic, co-authored by Blažena Gracová, Lenka Drahošová, and Martin Labisch in 2009, is based on the principle of using visual aids and associated methodology for better-quality history education. It is a recommendation for beginning teachers on how to work in history lessons. Several chapters deal specifically with working with cartoons, but even here, we found no follow-up practical experiment. Nor can we omit William Kratochvíl, whose ex-

perience with cartoons is considerable. Relevant for this research is especially the worksheet *Multiperspektivita v 26 učebných figúrach* from 2021 or the research *Modely na rozvíjanie kompetencií žiakov* (Kratochvíl, 2004).

Multimedia and digital aspects of cartoons in learning

The impact of digitalisation and the proliferation of multimedia content have changed the way contemporary students perceive visual aids. Therefore, it is necessary to investigate how new technologies and media literacy affect their ability to interpret historical cartoons. It is evident from previous research that there is a lack of a project that translates new theoretical information directly into practice to demonstrate the effectiveness of the methods. Considering the specificities of each country and the differences in the way history is taught, the Czech and Slovak space is the most relevant for our project. Our didactics have the most common features. The pedagogical experiment with the use of visual media in the teaching of history testifies to the importance of proceeding in a structured way in the analysis of cartoons (Labischová, 2015). The difference between the success rate of the control and the experimental group was 3.5 %. Due to the smaller number of participants needed for the quantitative research (less than 200), the results could not be 100 % reliable. Emphasis was placed on the assumption that with proper teacher practice in working with the cartoon, students can decipher and understand it better. The research also showed that cartoons that were too complicated or difficult to understand decreased learners' attention, and there was a higher error rate.

Another study analysed the responses of young people aged 16–19 to political cartoons to explore the concept of multimodal literacy (El Refaie & Hörschelmann, 2010). The research, conducted in Britain, collected data from 12 secondary school students. The students were asked to rate and analyse the selected cartoons. The research was qualitative in nature; it focused on the students' views and attitudes regarding the political events of the time. The results of this study show that a wide range of necessary skills and knowledge are required to interpret cartoons correctly. Cartoons are complex and can have multiple meanings; therefore, they require some form of reading literacy.

The effectiveness of visual aids in education

Research on the effect of visual displays on the explanation of grammatical concepts was conducted on a sample of Chinese university pupils (Gaikwad, 2013). The researcher used a quantitative method to measure syntactic com-

plexity and sentence structure in pupils' written utterances using pre- and post-test interviews. The pupils were divided into two groups: an experimental group and a control group. The findings showed that pupils who received and learned grammatical concepts using visually written instructions (experimental group) performed better than pupils in the control group who learned and received similar lessons using traditional approaches. As a result, the experimental group presented syntactically more complex and sophisticated texts in the post-test. Qualitative findings in the research revealed that visual representations increased pupils' conceptual understanding of grammatical phenomena. This study further highlighted the role of multimodal learning.¹

The aim of the research, conducted by Cevat Eker and Oğuzhan Karadeniz (Eker & Kardeniz, 2014), was to assess the impact of teaching methods using cartoons on learning achievement and knowledge retention of 56 primary school pupils. The research was conducted using quantitative methodology and took the form of an experiment using control and experimental groups. Data collection was done through a pretest, post-test and follow-up retention test.

The researchers administered a test designed to test knowledge, specifically designed for a social studies unit of study, to both groups. The experimental group received instruction using comic books, while the control group was taught using traditional methods in accordance with the curriculum and recommended textbook.

Findings showed statistically significant improvement in academic performance in the experimental group (mean post-test score = 68.20) compared to the control group (mean = 57.48). Retention scores also showed an advantage in favour of the experimental group (mean = 65.68 versus 53.20), indicating more effective long-term retention of learning.

Research findings suggest that incorporating visual aids such as cartoons can positively impact learners' academic performance and their ability to retain knowledge in the long term. Therefore, the authors recommend integrating visual material into the classroom to promote learner engagement, critical thinking development, and deeper knowledge retention.

Cartoons and critical thinking

Qualitative research was conducted with English language learners at Columbia University (Nuñez, 2018). This research aimed to improve critical thinking skills through the implementation of various task-oriented workshops. In these workshops, participants were asked to observe, analyse, reflect and discuss selected political cartoons. Data collection to answer the research question was conducted through the analysis of classroom videos, participants' portfo-

¹ Multimodal – using multiple methods to learn a particular concept and create meaning.

lios, and focus groups. By conducting this research, it was possible to identify how these subjects became aware of specific social and political issues that concerned themselves or their immediate surroundings. In addition, the participants indicated that these workshops showed them possible pedagogical paths they could take in the future as language teachers.

Historical cartoons as a tool of manipulation

The success of the widespread use of cartoons on public opinion can best be seen in the use of Nazi propaganda. At the same time, it helped shape ideology, especially among young people. It was children who were most strongly exposed to propaganda in the form of visual aids to deepen anti-Semitic attitudes. The best-known anti-Jewish magazine was *Der Stürmer*. This example shows a glimpse of the methods used by Hitler's Germany to manipulate and control public opinion and how people thought (Šimíček, 2012). In Slovakia, on the other hand, the well-known humorous and satirical magazine *Kocúr* was published between 1919 and 1945. Its successor in the socialist period was the magazine *Roháč*, published between 1948 and 1991.

Synthesis and implications of the reviewed research

The reviewed studies encompass a wide range of educational contexts, including primary school pupils, secondary school students, and university learners. Although the ages and educational levels vary, this broad scope is deliberate and theoretically grounded. The aim was to capture a comprehensive understanding of how historical cartoons operate across different stages of learner development and in various instructional settings. Despite these contextual differences, the studies reveal consistent patterns regarding the educational potential of cartoons—namely their ability to enhance motivation, visual literacy, critical thinking, and learner engagement.

The convergence of findings across age groups suggests that cartoons can serve as a universal didactic tool, adaptable to the cognitive and emotional readiness of different learners when applied with appropriate pedagogical scaffolding. For example, while younger learners benefit from the intuitive and affective appeal of visual materials, older students are capable of more sophisticated analysis and interpretation. This continuum supports the view that cartoons can play a developmental role in gradually building interpretative and reflective competencies.

Furthermore, the contrast between quantitative and qualitative studies underscores both the measurable effects (e.g., motivation, retention) and the deeper interpretive processes (e.g., decoding symbols, forming historical judgments) that cartoons can stimulate. This duality reinforces the significance of

multimodal learning strategies in history education, particularly within the context of 20th-century history, characterised by its rich visual and ideological complexity.

For the present study, the findings emphasise the necessity of integrating cartoons not only as illustrative content but also as cognitively demanding historical sources. Future research could benefit from a comparative approach that explores how different age groups interpret similar visual materials under guided analysis, thereby offering further insights into scaffolding techniques and differentiated instruction using cartoons.

Illustrative Applications of the Framework

As part of a broader dissertation research project, students from a vocational secondary school of transport (aged 17 to 20) engaged in structured work with historical cartoons during history lessons. The research involved seven different classes across multiple years of study, ranging from the second year of a four-year programme to the final year of a two-year post-secondary programme. History in this school setting is taught for only one hour per week and is not included in the final school-leaving examination. Therefore, a tailored and simplified interpretative model was developed, taking into account the specific cognitive and motivational profiles of the learners.

The students were gradually introduced to the process of analysing historical cartoons throughout the school year, ensuring familiarity and experience with this type of historical source. At the end of the year, semi-structured interviews and focus groups were conducted to collect data on students' perceptions, attitudes, and interpretive approaches. The cartoon analysis itself was not recorded in writing or audio; rather, it served as a preparatory experience for the final qualitative data collection.

The analytical framework employed in interpreting cartoons was inspired by the contributions of established scholars in didactics, such as R. Stradling, R. Čapek, and V. Kratochvíl, and was further adapted to suit the research sample. It integrated elements of multimodal literacy, critical thinking development, and visual decoding skills. Two historical cartoons and the subsequent *modus operandi* will be presented. The first cartoon, „Wonder how long the honeymoon will last?“ (Clifford, 1939), portrays the alliance between Nazi Germany and the Soviet Union, using the metaphor of a marriage to underscore the temporary and fragile nature of the pact. Students were guided by the following key questions:

1. How does the cartoon visually express the paradox of the Hitler-Stalin collaboration?
2. Why did the author use the marriage motif to depict the pact? What does it symbolise?

3. What is the meaning of the phrase „Wonder how long the honeymoon will last?” in the historical context?
4. How might the cartoon have been perceived by the public in the USA and Europe at the time?
5. What message did the cartoonist intend to convey through satirising the alliance?



Figure 1

Wonder how long the honeymoon will last? (Clifford, 1939).

The second cartoon, *Communique: The annihilation is proceeding according to schedule* (Geisel, 1941), reflects on the German invasion of the Soviet Union and contrasts Nazi propaganda with the harsh reality of war. The analysis focused on:

1. How does the size and power of the dinosaur represent the real military strength of the Soviet Union?
2. What is the meaning of the contrast between the small figure of Hitler and the large dinosaur?
3. Why did the author use irony in Hitler's statement? What was he implying?
4. How does this cartoon reflect American perceptions of the Nazi invasion of the USSR?

5. What does the cartoon reveal about the author's view of Hitler's military strategy?

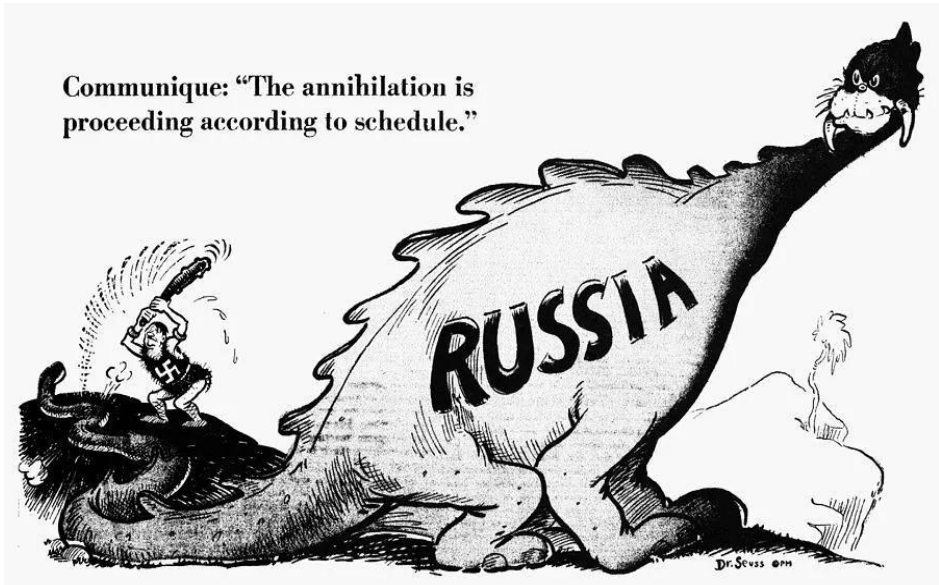


Figure 2

Communique: The annihilation is proceeding according to schedule (Geisel, 1941).

The tasks were designed to balance comprehension, interpretation, and critical reflection. Both multimodal and cognitive complexity were considered in the design of the questions to ensure they were accessible while remaining intellectually stimulating. Although the students' direct responses to these two cartoons were not formally documented, their experiences served as the basis for evaluating their attitudes and understanding during the final interviews and group discussions.

Discussion

The present theoretical study reflects the possibilities of using historical cartoons as a didactic tool in history teaching, primarily focusing on the 20th century. Drawing on the analysis of scholarly literature and research findings presented therein, it can be concluded that cartoon as a specific type of visual historical source offers a vast potential – from the promotion of critical and multiperspective thinking (Nuñez, 2018, p. 159), through the development of visual literacy (Gabovitsch & Topolska, 2023, p. 9), to the emotional involvement of learners in the learning process.

The theoretical framework showed that cartooning can serve as a means of decoding historical narratives, activating students and encouraging them to formulate their own interpretations. This approach is in line with current trends in history didactics that favour constructivist teaching (Drie & Boxtel, 2007, p. 88) strategies and student-centred learning. At the same time, however, there are also limitations to this approach – in particular, the need for qualified pedagogical guidance, appropriate selection of visual sources, and consideration of learners' cognitive readiness. Without methodically guided analysis, deciphering cartoons can be superficial or even misleading (Kratochvíl, 2019, pp. 108–109).

From the presented findings, there is also a need to shift the research in the field of didactic use of cartoons towards qualitative methodological approaches. While quantitative studies to date have provided useful data on the impact of cartoons on motivation and knowledge, a deeper understanding of how readers perceive, interpret and attribute meanings to cartoons is lacking. It is these aspects that could contribute significantly to the development of effective pedagogical approaches that also take into account the cultural and social context of particular individuals.

Conclusion

This study suggested that historical cartoons represent an important didactic tool in history teaching, which has the potential to enrich teaching with a visual dimension (Gabovitsch & Topolska, 2023, p. 2), promote active learning and develop important cognitive and interpretative competences in learners. However, cartooning alone does not guarantee effective learning – its benefits depend on the pedagogical context in which it is used, the teacher's ability to formulate focused questions and guide interpretation, and the students' readiness to actively engage in such learning.

Given the absence of systematic research on this topic in the Czech and Slovak environment, we consider it necessary to continue its theoretical and empirical elaboration. Future research could focus in particular on the qualitative analysis of students' interpretations, on the validation of didactic models based on working with cartoons, as well as on the investigation of the influence of visual media on students' historical thinking.

In the context of the growing importance of visual culture and digital media, it is essential that schools actively work with multimodal sources (El Refaie & Hörschelmann, 2010, p. 205) and prepare students for their critical reflection (Haward, 2020, p. 366). Thus, cartoons as a historical source not only represent a bridge between the past and the present, but also a challenge for modern di-

dactics on how to effectively link visual literacy with historical knowledge (Gabovitsch & Topolska, 2023, p. 14).

References

- Al-Araimi, S., Ambusaidi, A., Selim, M., Al-Amri, M. (2018). The impact of caricature drawings in the acquisition of scientific concepts and attitudes of 4th grade students for basic education towards science. *Journal of Baltic Science Education*, 17(3), 414–427.
- Anderson, L.W., Krathwohl, D.R., Bloom, B.S. (2001). *A taxonomy for learning, teaching, and assessing: A revision of Bloom's taxonomy of educational objectives*. Longman.
- Baumgartner, J.C. (2008). Polls and elections: Editorial cartoons 2.0: The effects of digital political satire on presidential candidate evaluations. *Presidential Studies Quarterly*, 38(4), 735–758.
- Bickford, J. (2016). Integrating creative, critical, and historical thinking through close reading, document-based writing and original political cartooning. *The Councilor: A Journal of the Social Studies*, 77(1), 1–9.
- Biggs, J. (2011). *Teaching for quality learning at university*. Open University Press.
- Cardillo, N. (2016). *Visual aids supporting the learning of children in our classrooms*. In *The Challenge of Teaching*. Springer Singapore.
- Çifçi, M., Kaplan, K. (2020). A rubric study for the evaluation of caricature creation building skills of 6th grade students. *Dil ve Dilbilimi Çalışmaları Dergisi*, 16(1), 213–237.
- Clifford, B. (1939). Wonder how long the honeymoon will last? *The Washington Star*. <https://medium.com/the-edict/world-war-ii-through-cartoons-1b159856f42d>.
- Čapek, R. (2015). *Moderní didaktika: Lexikon výukových a hodnoticích metod*. Grada Publishing.
- Drie, J. van, Boxtel, C. van. (2007). Historical reasoning: Towards a framework for analysing students' reasoning about the past. *Educational Psychology Review*, 20(1), 219–228.
- Eker, C., Kardeniz, O. (2014). The effects of educational practice with cartoons on learning outcomes. *International Journal of Humanities and Social Science*, 14(4), 223–234.
- El Refaie, E., Hörschelmann, K. (2010). Young people's readings of a political cartoon and the concept of multimodal literacy. *Discourse: Studies in the Cultural Politics of Education*, 31(2), 195–207.
- Gabovitsch, M., Topolska, A. (2023). Visual literacy in history education. Textbooks and beyond. *Journal of Educational Media, Memory and Society*, 15(1), 1–19.

- Gaikwad, V. (2013). *The impact of a visual approach used in the teaching of grammar when embedded into writing instruction: A study on the writing development of Chinese first-year university students in a British university in China* [Unpublished master's thesis]. University of Exeter.
- Geisel, T. (1941). *Communique: The annihilation is proceeding according to schedule*. <https://medium.com/the-edict/world-war-ii-through-cartoons-1b159856f42d>
- Gracová, B., Drahošová, L., Labisch, M. (2009). *Metodika výuky historie na 2. stupni základních škol a středních školách z pohledu pedagogické praxe – náměty pro začínající učitele*. Ostravská univerzita.
- Haward, T. (2020). How do students engage with visual sources in the teaching and learning of history? *British Educational Research Journal*, 46(2), 364–378.
- Heitzmann, W.R. (1998). *The power of political cartoons in teaching history*. National Council for History Education.
- Kratochvíl, V. (2004). *Modely na rozvíjanie kompetencií žiakov*. Stimul.
- Kratochvíl, V. (2014). Karikatura a fotografie jako školský historický obrazový pramen. *Moderní dějiny*. <https://www.moderni-dejiny.cz/clanek/karikatura-a-fotografie-jako-skolsky-historicky-obrazovy-pramen/>
- Kratochvíl, V. (2019). *Metafora stromu ako model didaktiky dejepisu*. Raabe.
- Kratochvíl, V. (2021). *Multiperspektíva v 26 učebných figúrach*. Raabe.
- Labischová, D. (2015). Možnosti využití metody eyetrackingu ve výzkumu kompetencí historického myšlení na příkladu analýzy ikonografického materiálu. *Pedagogická orientace*, 25(2), 271–299.
- Mahmoudabadi, A., Nadimi, H. (2020). The educational function of caricature and its effect on the students' educational motivation and satisfaction. *Technology of Education Journal*, 14(3), 145–153.
- McKee, N., Agbi, M., Carnegie, R., Shahzadi, N. (2003). Cartoons and comic books for changing social norms: Meena, the South Asian girl. In A. Singhal, M.J. Cody, E.M. Rogers, M. Sabido (Eds.), *Entertainment-education and social change* (pp. 353–372). Routledge.
- Milánová, P. (2023). *Didaktické využitie karikatúr z obdobia 2. svetovej vojny* [Diploma thesis]. Katedra histórie FF UMB.
- Minárechová, M. (2017). Využitie metódy concept cartoons na hodinách prírodovedy z pohľadu učiteľov prvého stupňa ZŠ. *Scientia in educatione*, 8(1), 18–31.
- Moroz, P.V. (2015). The use of caricatures in the school textbooks of world history (methodology of research-based studying). *Проблеми сучасного підручника*, 17(1), 241–257.
- Nuñez, E.M.T., Marquez Medina, A., Ortiz Cubides, J.E. (2018). Enhancing critical thinking skills through political cartoons: A pedagogical implementation. *GiST Education and Learning Research Journal*, 16(1), 141–163.

- Onušková, M., Bačová, D. (2015). *Edukačné médiá a ich využívanie v spoločenskovedných predmetoch na základnej a strednej škole*. Metodicko-pedagogické centrum.
- Shabiralyani, G., Shahzad, K., Fazal, S., Hussain, M. (2015). Impact of visual aids in enhancing the learning process: Case research in district Dera Ghazi Khan. *Journal of Education and Practice*, 6(19), 226–233.
- Šimíček, P. (2012). Interpretace antisemitských karikatur. *Moderní dějiny*. <https://www.moderni-dejiny.cz/clanek/interpretace-antisemitskych-karikatur/>
- Srinivasalu, G. (2016). Using cartoons as effective tools in teaching learning process of social science. *Scholarly Research Journal for Interdisciplinary Studies*, 3(23), 1898–1905.
- Stradling, R. (2002). *Vyučovanie európskej histórie dvadsiateho storočia*. Metodické centrum.
- Theotokatou, I. (2016). *The use of comic books alternatively to historical textbooks*. New pedagogical avenues.
- Twark, J.E. (2016). Approaching history as cultural memory through humour, satire, comics and graphic novels. *Contemporary European History*, 26(1), 175–187.
- Valter, J. (2014). Teoreticko-historiografický úvod k dejinám karikatúry. *Štúdie o minulosti*, 7(1), 84–97.
- Von Wyk, M.M. (2011). The use of cartoons as a teaching tool to enhance student learning in economics education. *Journal of Social Sciences*, 26(2), 117–130.

Komiks jako narzędzie nauczania historii XX wieku: rozszyfrowywanie i interpretacja

Streszczenie

Autor artykułu koncentruje się na teoretycznej definicji i analizie możliwości wykorzystania historycznych karykatur jako narzędzia dydaktycznego w nauczaniu historii. Opiera się na założeniu, że karykatura jako specyficzny rodzaj wizualnego źródła historycznego sprzyja rozwijaniu krytycznego i wieloaspektowego myślenia uczniów, umożliwiając jednocześnie oryginalną interpretację kontekstów historycznych. Jej ekspresyjny język, oparty na symbolice, hiperboli i skrótach wizualnych, zapewnia przestrzeń do pojęcia złożonych tematów w przystępnej i motywującej formie. Analiza koncentruje się na potencjale dydaktycznym karykatur, ich możliwościach funkcjonalnych oraz korzyściach i zagrożeniach związanych z przekazywaniem treści historycznych. Uwagę poświęcono również typologii karykatur, ich strukturom stylistycznym i semantycznym, a także ich wpływowi na poznawczy i afektywny poziom uczenia się. Badanie obejmuje przegląd powiązanej literatury i identyfikację luk badawczych w środowisku słowackim. Artykuł przedstawia również teoretyczne podstawy szerszych badań z zastosowaniem wyników, które są prowadzone w ramach pracy doktorskiej.

Słowa kluczowe: komiks, historia edukacji, pomoce wizualne, przegląd literatury, badania jakościowe.